# RAMSAR INFORMATION SHEET

## FOR WETLANDS OF INTERNATIONAL IMPORTANCE

Date of designation: 11/05/99 (date of announcement at COP7)

**Site reference number** 6UK003

| | | |
|---|---|---|
| 1 | **Compilation date** | May 1999 |
| 2 | **Country** | British Virgin Islands (UK Dependency) |
| 3 | **Name of wetland** | Western Salt Ponds of Anegada |
| 4 | **Site centre location:** | Latitude: 18 43 00 N Longitude: 64 19 00 W |
| 5 | **Altitude** | 0-8 metres |
| 6 | **Area (ha)** | 1071 |

**7 Overview**

The wetland is comprised of brackish saline lagoons amongst shrub dominated vegetation. The wetland is the largest in the country.

The ponds are partially filled depressions in the lower part of a limestone ridge and are predominantly isolated from the sea by multiple ridges and dunes. There is one small channel connecting the ponds with the sea. Most of the ponds rise and fall with the highest tides, although many dry out during the dry periods.

The shallow lagoons support a re-introduced flock of Caribbean flamingos and a fishery based on mullet fish, while the endemic and endangered Anegada Rock Iguana lives in the surrounding shrubbery.

**8 Wetland type** Inland wetland, Marine/coastal wetland

| Code | Name | % Area |
|---|---|---|
| H | Salt marshes | 9.3 |
| I | Mangrove / tidal forest | 4.7 |
| J | Coastal brackish / saline lagoons | 11.7 |
| Q | Saline / brackish lakes: permanent | 22.1 |
| W | Shrub-dominated wetlands | 52.2 |

| | | |
|---|---|---|
| 9 | **Ramsar Criteria** | 1c, 2a, 3b, 4b |
| 10 | **Map of the site** | √ |
| 11 | **Compiler** | Joint Nature Conservation Committee<br>Monkstone House<br>City Road<br>Peterborough<br>Cambridgeshire PE1 1JY<br>UK |
| | Telephone/Fax : | +44(0) 1733 562626 / +44(0) 1733 555948 |

**12 Justification of criteria**

**Ramsar criterion 1c**

The Western Salt ponds of Anegada are a particularly good example of salt pond wetlands within the Greater Antilles.

**Ramsar criterion 2a**

The site supports a number of endangered fauna and flora. Of these, the most notable are the endangered endemic Anegada Rock Iguana *Cyclura pinguis* about two metres long, and the re-introduced colony of Caribbean Flamingos *Phoenicopterus ruber ruber*.

**Ramsar criterion 3b**

The site is a very important habitat and nesting site for both sea and shore birds, with many species present that are not found elsewhere in the British Virgin Islands or other islands on the Puerto Rico shelf.

**Ramsar criterion 4b**
The ponds provide a spawning area for the Curry-mole mullet fish *Mugil cephalus*, which from November to February each year enter the ponds through a channel connected to the sea to spawn.

## 13 General location

Nearest town/city: The Settlement, Anegada Island
The site is at the western end of Anegada, at an approximate distance of 5.8km on a bearing of 282 degrees from the Settlement, the largest village and partial administrative centre on Anegada.
**Administrative Region:** British Virgin Islands

## 14 Physical Features

| | |
|---|---|
| Soil & Geology | limestone/chalk, mud, nutrient-rich, sand |
| Geomorphology and Landscape | coastal, island, lagoon, lowland, pools, subtidal sediments (including sandbank/mudbank) |
| Nutrient status | highly eutrophic |
| pH | alkaline |
| Salinity | hypersaline / hyperhaline |
| Soil | mainly organic |
| Water permanence | usually permanent |
| Summary of main climatic features | Warm, rainy climate with dry season over winter; in a hurricane area. Mean minimum temperature approximately 24 ° C. Mean maximum temperature approximately 34 ° C. Mean annual precipitation 750-1000 mm. Prevailing easterly winds. |

## 15 Hydrological values

Shoreline stabilisation and dissipation of erosive forces, Sediment trapping, Flood water storage / desynchronisation of flood peaks, Maintenance of water quality (removal of nutrients)

The salt ponds are only periodically connected to the sea and, therefore, along with the mangroves, they help to prevent flooding during storms. The mangrove swamps and salt ponds trap sediments heading to the sea from the land. Mangroves prevent bank scouring and erosion by waves.

## 16 Ecological features

There are five main habitat types at the Western Salt Ponds. These are:
1) Tidal mudflats - areas of silty sand and mud that are periodically covered by tide waters. The often sparse vegetation is typified by *Salicornia perrenis, S. bigloveii, Distichlis spicata* and stunted mangroves.
2) Mangrove/Tidal Forest - areas that are more or less enclosed except for some interplay with lagoon habitats. Conditions are generally brackish. Vegetation is patchy with clumps of Red *Rhizophora mangle*, Black *Avicennia germinans* and Buttonwood *Conocarpus erectus* mangroves, interspersed with ponds and mudflats. Drier areas support *Borrichia arborescens, Sesuvium portulacstrum* and *Distichlis spicata.*
Many organisms aggregate in the mangrove maze of roots where organic matter is abundant. The fish, shellfish and algae depend on mangroves as a source of food and shelter. Various avian species reside in the ponds, mudflats and the canopy of the mangroves. During the winter (October to May), migratory birds stop over in the wetland to rest and feed.

3) Coastal brackish/saline lagoons - protected inlets, which are tidal and open to the sea at least at very high tides. Typified by a thick border of Red mangrove. The water contains marine elements and supports a productive system with a thick soft mud layer inhabited by a high invertebrate biomass.
4) Salina - an inland pond which is generally hypersaline, the shallow open water area often dries out and salt crystallizes along the pond edges. It is the habitat of the brine shrimp *Artemia spp.* and is bordered by Buttonwood mangrove.
5) Salt pond - an area periodically connected to the sea. The pond supports limited submerged vegetation and is bordered by a narrow zone of mangrove species.

## 17 Noteworthy flora

**Internationally important species occurring on the site.**

**Higher Plants.**
*Fishlockia anagadensis, Cynanchum anagadense, Sabal causiarum* and *Thurinax mossisii.*

**Assemblage.**
The site supports a diverse assemblage of plant species including:
*Rhizophora mangle, Avicennia germinans, Laguncularia racemosa, Conocarpus erectus, Salicornia perrenis, S. bigloveii, Distichlis spicata, Borrichia arborescens* and *Sesuvium portulacstrum.*

## 18 Noteworthy fauna

**Species occurring at levels of international importance.**

**Reptiles.**
*Cyclura pinguis.*

**Nationally important species occurring on the site.**

**Birds.**
*Phoenicopterus ruber ruber, Larus atricilla* and *Sterna dougallii.*

**Reptiles.**
*Typlops richardi catapontus* and *Dromicus portoricensis anegadae.*

**Fish.**
*Mugil cephalus.*

## 19 Social and Cultural Values

Conservation education
Current scientific research
Fisheries production
Livestock grazing
Subsistence fishing
Tourism
Traditional cultural

## 20 Land tenure/ownership

| Ownership category | On-Site | Off-Site |
|---|---|---|
| National/Crown estate | + | + |
| Private | | + |

## 21 Current land use

| Activity | On-Site | Off-Site | Scale |
|---|---|---|---|
| Nature conservation | + | + | Large-Scale |
| Tourism | + | + | Small-Scale |
| Research | + | | Small-Scale |
| Cutting of vegetation (small | + | + | Small-Scale |

| | | | |
|---|---|---|---|
| scale/subsistence) | | | |
| Fishing: subsistence | + | + | Small-Scale |
| Gathering of shellfish | + | + | Small-Scale |
| Bait collection | + | + | Small-Scale |
| Rough or shifting grazing | + | + | Small-Scale |
| Flood control | + | + | Large-Scale |
| Mining | + | + | Small-Scale |
| Transport route | + | + | Large-Scale |
| Other | + | + | Small-Scale |

## 22 Adverse factors affecting the ecological character of the site

| Activity | On-Site | Off-Site |
|---|---|---|
| Direct loss of fauna through hunting or capture | + | + |
| Overgrazing by domestic livestock | + | + |
| Disturbance to vegetation. community through cutting / clearing | + | + |
| Over fishing | + | |
| Recreational/tourism disturbance (unspecified) | + | + |
| General disturbance from human activities | + | + |
| Reservoir/barrage/dam impact: flow regime | + | |
| Reservoir/barrage/dam impact: loss of wetland due to restriction | + | |
| Disturbance from transport/roads | + | + |
| Unspecified development: urban use | | + |

## 23 Conservation measures taken

| Conservation measure | On-site | Off-site |
|---|---|---|
| Site management statement/plan implemented | + | + |
| Bird sanctuary | + | |

## 24 Conservation measures proposed but not yet implemented

see below

### Site vulnerability and management statement

The Anegada people have always been the major conservationists for the ponds as they have left the wetland basically un-touched. Management plans will include ways to reduce stress on the re-introduced flamingo bird colony and removal of grazing livestock that compete with the Anegada Rock Iguana *Cyclura pinguis* for suitable shrubbery. Housing, roads and commercial developments around the site, although limited at present, will be controlled by the Town & Country Planning Department to minimize pollution, noise and sand dune damage. The site is also a proposed national park.

## 25 Current scientific research/survey/monitoring and facilities

Research has and is being undertaken by the H. Lavity Stoutt Community School of Tortola about the salt ponds of Anegada.

## 26 Current conservation education

To date, there has been very little conservation education relating directly to Anegada. However, an educational element especially relating to Anegada is being funded as part of the Darwin Initiative Project which was recently awarded to the National Park Trust. This part of the project will be taking place in 2000 and 2001. Preparation of environmental resources for distribution to local schools and departments for Anegada is one of the objectives of the project in its third year. Finally, the Conservation & Fisheries Department, in conjunction with the National Park Trust runs a summer programme for children every year and information relating to Anegada has been incorporated in the past.

### 27 Current recreation and tourism

Presently visitation to Anegada is much lower than the other British Virgin Islands due to its remote geographic nature. The majority of visitors sail to Anegada and spend one or two nights and then leave. Visitation to the wetland areas is mainly by persons interested in viewing the seabird life and the flamingos, or walking the area where Anegada Rock Iguanas are occasionally sighted. Most tourists, however, visit Anegada for its pristine white sandy beaches, which stretch for miles. As part of the proposed park, the National Parks Trust has built a captive breeding facility and a visitor centre. Tourism to this area has not been promoted as protection to the area has been deemed advisable before uncontrolled visitation takes place.

### 28 Functional jurisdiction

Ministry of Natural Resources and Labour

### 29 Management authority

Department of Conservation and Fisheries

### 30 Bibliography

British Virgin Islands National Parks Trust. 1986. *A Parks and Protected Areas system plan for the British Virgin Islands.* British Virgin Islands National Parks Trust Office, BVI.

Cambers, G. *ed.* 1991. *Proceedings of the Regional Symposium on public and Private Cooperation in National Park Development.* British Virgin Islands National Parks Trust Office, BVI.

Jennison, M,. 1991. *Inclusion of the British Virgin Islands into the Ramsar Convention.* Unpublished BSc (Hons) thesis, Heriot-Watt University.

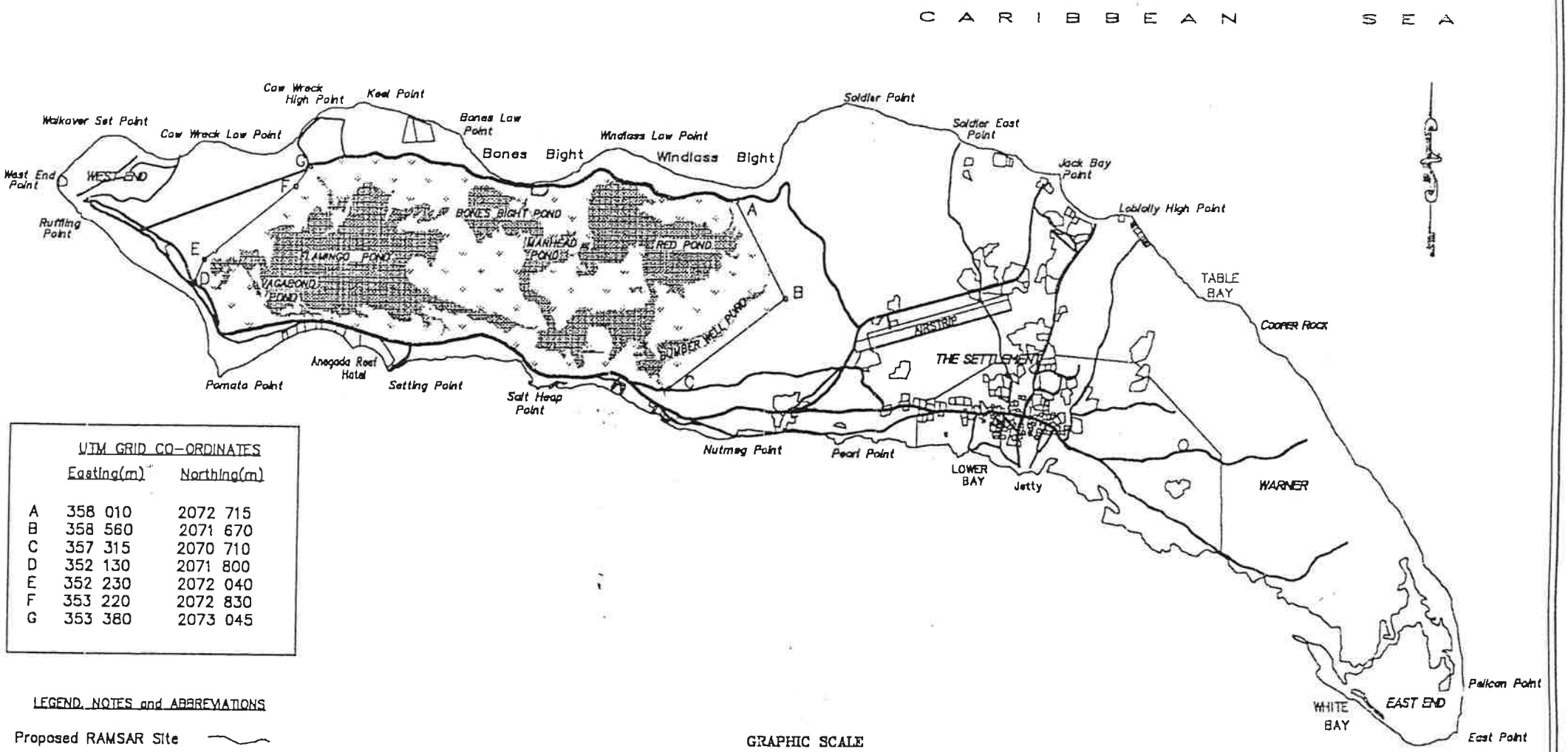
as the first RAMSAR Site in the British Virgin Islands.

ISLAND : Anegada

SECTION : Anegada

LOCALITY : Western Salt Ponds

Plan No. : MI–NA–43–A




UTM GRID CO-ORDINATES

| | Easting(m) | Northing(m) |
|---|---|---|
| A | 358 010 | 2072 715 |
| B | 358 560 | 2071 670 |
| C | 357 315 | 2070 710 |
| D | 352 130 | 2071 800 |
| E | 352 230 | 2072 040 |
| F | 353 220 | 2072 830 |
| G | 353 380 | 2073 045 |

LEGEND, NOTES and ABBREVIATIONS

Proposed RAMSAR Site

Bounded by points A–B–C on the east existing road on the south; points D–E–F–G on the west and existing road on the north; but excluding Parcel 1 of Block 5571A.

Area of Reserve = 2570 Acres

GRAPHIC SCALE

( IN METERS )

1500 0 750 1500 3000 4500 6000 7500

SURVEY DEPARTMENT
P.O. BOX 142
ROAD TOWN
TORTOLA, B.V.Is.

CHECKED BY :

DATE : 23 Oct '97.

DRAWN BY : M. Ferreira

APPROVED AS A FILED PLAN

CHIEF SURVEYOR DATE

Oct 24 1997