Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7, as amended by Resolution VIII.13 of the Conference of the Contracting Parties.

Note for compilers:

- 1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
- 2. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers are strongly urged to provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of maps.

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|-----------------------------|--|---|
| 1. | Joint Nature Conservation Committee Monkstone House City Road Peterborough | FOR OFFICE USE ONLY. DD MM YY Designation date Site Reference Number - 555 948 |
| 2. | Date this sheet was completed: 20 March 2003 | |
| 3. | . Country: UK (Western Sovereign Base Area of Cyprus) | |
| 4. | . Name of the Ramsar site: Akrotiri | |
| | efer to Annex III of the Explanatory Notes and Guidelines, for detailed guida | |
| a) l |) hard copy (required for inclusion of site in the Ramsar List): | yes ✓ -or- no □ |
| b) (|) digital (electronic) format (optional): Yes | |
| 6. | Geographical coordinates (latitude/longitude): 34 37 00 N 32 58 00 E | |
| Akt loca vill circ | clude in which part of the country and which large administrative region(s), a krotiri Ramsar site is located on Akrotiri Peninsula, the souther ocated 5 km south-west of the city of Limassol (population circa illage (population circa 800) and RAF Station Akrotiri to the source 350) to the north. Administrative region: Western Sovereign Base Area of Cyprocessing Country (Country) and Country (Country). | rnmost part of Cyprus. The site is a 150,000). It also borders Akrotiri buth and Asomatos village (population |
| 8. | Min3 Max. 2 Mean -0.5 | Area (nectares): 21/1 |

Ramsar Information Sheet:

10. Overview:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

The Akrotiri Ramsar site is composed of two distinct areas that are hydrologically connected. The first and largest area is the large salt lake and sand flats that are situated in the centre of the Akrotiri peninsula. Over the last three centuries, this former lagoon has been isolated from the sea and a number of saltmarsh vegetation communities have developed and now surround the lake. The lake and surrounding saltmarsh is important for a range of wetland birds, in particular greater flamingo *Phoenicopterus ruber*. A eucalyptus forest borders the northern side of the lake and this is an important raptor roosting area. The second distinct area is the Fassouri marshes that lie to the northeast of the salt lake. This area is made up of a matrix of freshwater habitat types including grazing marsh and reedbeds. Rain water is the key hydrological input for both areas, although the lake does get occasional input from the sea during storms. The two areas are hydrologically linked and the Fassouri marshes provide important water inputs to the seasonal salt lake.

11. Ramsar Criteria:

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

1, 2, 3, 6

12. Justification for the application of each Criterion listed in 11. above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

The site qualifies under Criterion 1 of the Ramsar Convention as it is one of the very few major salt lakes within the eastern Mediterranean in semi-natural condition that exhibits a wide range of saline and freshwater influences. The site contains many good examples of inland saline and freshwater wetland habitats, a combination that is unique within the biogeographic region of the eastern Mediterranean, including permanent and seasonal saline pools, salt marsh, sand flats and freshwater marshes. The site is the largest aquatic system in Cyprus.

The site qualifies under Criterion 2 as it supports an appreciable number of rare, vulnerable or endangered species or subspecies of plant or animal including 13 endemic and rare plant species such as *Ophrys kotschyi* (endemic) and *Linum maritimum* (rare), as well as over 32 bird species listed on Annex I of the European Birds Directive.

The site qualifies under Criterion 3 as it supports populations of plant and animal species that are important for maintaining the biological diversity of the eastern Mediterranean biogeographic region. Many species of plant and animal, including a number of endemic plant and invertebrate species, are wholly dependent on habitat types represented within the site of which there are few remaining examples on Cyprus.

The site qualifies under Criterion 6 by regularly supporting an internationally important wintering population of greater flamingo *Phoenicopterus ruber*. In the five-winter period 1998-2002, an average peak count of 6,000 was recorded, being approximately 2% of the eastern Mediterranean/SW& S Asian population.

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13. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Mediterranean

b) biogeographic regionalisation scheme (include reference citation):

Council Directive 92/43/EEC (as amended)

14. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

| Soil & geology | sand | |
|-----------------------------------|---------------------------------|--|
| Geomorphology and landscape | basins, lagoon, lowland, pools | |
| Nutrient status | oligotrophic | |
| pН | strongly alkaline | |
| Salinity | brackish / mixosaline | |
| Soil | mainly mineral | |
| Water permanence | usually seasonal / intermittent | |
| Summary of main climatic features | No information available. | |

15. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

No information reported.

16. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

Flood water storage / desynchronisation of flood peaks

17. Wetland types

Inland wetland

| Code | Name | % Area |
|-------|---|--------|
| Е | Sand / shingle shores (including dune systems) | 4.2 |
| Н | Salt marshes | 4.1 |
| Ts | Freshwater marshes / pools: seasonal / intermittent | 7.8 |
| W | Shrub-dominated wetlands | 44.8 |
| R | Saline / brackish lakes: seasonal / intermittent | 33.3 |
| 9 | Canals and drainage channels | 0.1 |
| Other | Other | 5.7 |

18. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site.

Salt lake and small depressions holding water and plants. The main plants are *Ruppia maritima* and *Chara* spp. Unicellular algae are also present in the salt lake.

Reed beds and sedges: *Phragmites australis, Imperata cylindrica, Calystegia sepium, Cladium mariscus, Saccharum ravennae, Juncus* spp., *Scirpus maritimus*.

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Salicornia and other annuals colonizing mud and sand: Salicornia europaea, Halopeplis amplexicaulis, Suaeda maritima, Cressa cretica, Frankenia pulverulenta, Hordeum marinum, Parapholis marginata, Sphenopus divaricatus, Spergularia marina.

Mediterranean salt meadows (Juncetalia maritimi): Juncus maritimus, Juncus acutus, Juncus articulatus, Juncus heldreichianus, Juncus hybridus, Juncus littoralis, Juncus rigidus, Juncus subulatus, Aeluropus lagopoides, Agropyron elongatum, Bolboschoenus maritimus, Carex distans, Carex divisa, Carex extensa, Centaurium pulchellum, Centaurium tenuiflorum, Crypsis factorovskyi, Hordeum marinum, Imperata cylindrica, Limonium mucronulatum, Linum maritimum, Parapholis marginata, Plantago maritima subsp. crassifolia, Saccharum ravennae, Schoenoplectus littoralis, Schoenus nigricans, Scirpoides holoschoenus, Triglochin bulbosa.

Mediterranean and thermo-Atlantic halophilous scrubs (Sarcoconetea fruticosi): Arthrocnemum macrostachyum, Salicornia fruticosa, Salicornia perennis, Atriplex portulacoides, Halocnemum strobilaceum, Inula crithmoides, Spergularia marina, Suaeda vera, Limonium mucronulatum.

Dune sclerophyllous scrubs (*Cisto-Lavenduletalia*): Thymus capitatus, Teucrium micropodioides, Helianthemum stipulatum, Cistus spp., Echium angustifolium, Fumana thymifolia, Pistacia lentiscus, Asparagus stipularis, Rhamnus oleoides ssp. graecus, Thymelaea hirsuta, Lycium sweinfurthii, Noaea mucronata, Phagnalon rupestre, Echium angustifolium.

Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.: *Chara* spp.

Arborescent matorral with Juniperus spp.: Juniperus phoenicea, Ceratonia siliqua, Cistus spp., Myrtus communis, Olea europaea, Pistasia lentiscus, Prasium majus, Rhamnus oleoides subsp. graecus, Thymus capitatus, Thymelaea hirsuta.

Sarcopoterium spinosum phryganas: Sarcopoterium spinosum, Thymus capitatus, Cistus spp., Convolvulus oleifolius, Fumana spp., Helianthemum obtusifolium, Helianthemum spp., Helichrysum conglobatum, Lithodora hispidula ssp. versicolor, Micromenia spp., Noaea mucronata, Onosma fruticosa, Phagnalon rupestre, Teucrium spp.

Mediterranean tall humid grasslands of the *Molinio-Holoschoenion: Panicum repens, Baldellia* ranunculoides, Teucrium scordium ssp. scorpioides, Centaurea calcitrapa ssp. angusticeps, Cyperaceae spp., Juncus spp., Lotus corniculatus, Lythrum junceum, Mentha aquatica, Ononis spinosa, Pulicaria dysenterica ssp. uliginosa, Ranunculus peltatus, Sacharum ravennae, Schoenus nigricans, Scirpoides holoschoenus, Euphorbia pubescens.

Southern riparian galleries and thickets (Nerio-Tamaricetea and Securinegion tinctoriae): Tamarix tetragyna, Asparagus stipularis.

Olea and Ceratonia forests: Pistacia lentiscus, Rhamnus oleoides ssp. graecus, Olea europaea ssp. silvestris, Ceratonia siliqua, Calycotome villosa, Genista fasselata, Myrtus communis, Pistacia terebinthus, Prasium majus.

Eucalyptus/Acacia: Eucalyptus gomphocephala, Eucalyptus camaldulensis, Acacia saligna and other Acacia spp., Casuarina cuningchamiana.

19. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Habitats of International Importance:

- 1150 Coastal lagoons [EC Habitats Directive Annex I *Priority habitat]
- 1310 Salicornia and other annuals colonizing mud and sand [EC Habitats Directive Annex I]
- 1410 Mediterranean salt meadows (*Juncetalia maritimi*) [EC Habitats Directive Annex I]
- 1420 Mediterranean and thermo-Atlantic halophilous scrubs (*Sarcoconetea fruticosi*) [EC Habitats Directive Annex I]
- 2260 Dune sclerophyllous scrubs (Cisto-Lavenduletalia) [EC Habitats Directive Annex I]

- 3140 Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. [EC Habitats Directive Annex I]
- 5210 Arborescent matorral with *Juniperus* spp. [EC Habitats Directive Annex I]
- 5420 Sarcopoterium spinosum phryganas [EC Habitats Directive Annex I]
- 6420 Mediterranean tall humid grasslands of the *Molinio-Holoschoenion* [EC Habitats Directive Annex I]
- 92D0 Southern riparian galleries and thickets (*Nerio-Tamaricetea* and *Securinegion tinctoriae*) [EC Habitats Directive Annex I]
- 9320 Olea and Ceratonia forests [EC Habitats Directive Annex I]

Higher plants of National Importance:

Ophrys kotschyi Endemic (Listed Bern)

Anthemis tricolor Endemic

Centaurea calcitrapa angusticeps Endemic

Convolvus cyprius Endemic

Dianthus strictus Endemic

Odontites cypria Endemic

Onopordum cyprium Endemic

Teucrium micropodioides Endemic

Ipomea sagittata Rare

Linum maritimum Rare

Lotus cytisoides Rare

Mentha aquatica Rare

Juncus maritimus Uncommon

20. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present* – these may be supplied as supplementary information to the RIS.

Birds

Species Information

Species occurring at levels of international importance:

6,000 Greater Flamingo *Phoenicopterus ruber*, Count period 1993-2002, representing more than 1% of the biogeographical population

Conservation status Annex I EC Birds Directive

Species occurring at levels of national importance:

- 2 Pallid Harrier Circus macrourus Count period 2002, Conservation status Near Threatened IUCN
- 3 Lesser Kestrel Falco naumanni Count period 2001, Conservation status Vulnerable IUCN
- 60-750 Common shelduck *Tadorna tadorna* Count period 1993-2002, Conservation status EC Birds Directive Annex I

Assemblages of national importance:

45 bird species included on Annex I of the EC Birds Directive have been recorded from 1998-2002

Important Bird Area (Birdlife International) congregations of waterbirds of global and European Importance.

21. Social and cultural values:

e.g. fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

Aesthetic

Aquatic vegetation (e.g. reeds, willows, seaweed)

Conservation education

Current scientific research Livestock grazing Non-consumptive recreation Tourism Traditional cultural

22. Land tenure/ownership:

| Ownership category | On-site | Off-site |
|-----------------------|---------|----------|
| National/Crown estate | + | + |
| Private | + | + |
| Public/communal | + | + |
| Other | + | + |

23. Current land (including water) use:

| Activity | On-site | Off-site | Scale |
|------------------------------------|---------|----------|-------------|
| Nature conservation | + | + | Small-scale |
| Tourism | + | + | Large-scale |
| Recreation | + | + | Large-scale |
| Research | + | + | Small-scale |
| Collection of non-timber natural | + | + | Small-scale |
| products: (unspecified) | | | |
| Collection of non-timber natural | + | + | Large-scale |
| products: commercial | | | |
| Cutting for firewood | | + | Large-scale |
| Cutting of vegetation (small | + | + | Small-scale |
| scale/subsistence) | | | |
| Fishing: (unspecified) | | + | Small-scale |
| Fishing: commercial | | + | Small-scale |
| Fishing: recreational/sport | | + | Small-scale |
| Arable agriculture (unspecified) | | + | Large-scale |
| Shifting arable agriculture | | + | Large-scale |
| Permanent arable agriculture | | + | Large-scale |
| Livestock watering hole/pond | + | + | Large-scale |
| Grazing (unspecified) | + | + | Small-scale |
| Rough or shifting grazing | + | + | Large-scale |
| Permanent pastoral agriculture | + | + | Large-scale |
| Hunting: recreational/sport | + | + | Large-scale |
| Industrial water supply | | + | Large-scale |
| Sewage treatment/disposal | | + | Large-scale |
| Harbour/port | | + | Large-scale |
| Flood control | + | + | Small-scale |
| Irrigation (inc agricultural water | + | + | Small-scale |
| supply) | | | |
| Transport route | | + | Small-scale |
| Domestic water supply | + | + | Large-scale |
| Urban development | | + | Large-scale |
| Military activities | + | + | Large-scale |

24. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

| Activity On-site Off-site Scale |
|---------------------------------|
|---------------------------------|

| D: 11 00 11 1 | Τ. | <u> </u> | T 1 |
|-------------------------------------|----|----------|-------------|
| Direct loss of fauna through | + | + | Large-scale |
| hunting or capture | | | |
| Habitat burning | + | + | Large-scale |
| Vegetation succession | + | + | Large-scale |
| Drainage/reclamation: | + | + | Small-scale |
| (unspecified) | | | |
| Drainage/reclamation for | | + | Small-scale |
| agriculture | | | |
| Drainage/reclamation for urban | | + | Small-scale |
| development | | | |
| Water diversion for | | + | Large-scale |
| irrigation/domestic/industrial use | | | |
| Erosion | | + | Small-scale |
| Persistent drought | + | + | Small-scale |
| Introduction/invasion of exotic | + | + | Large-scale |
| plant species | | | |
| Pollution - pesticides/agricultural | + | + | Large-scale |
| runoff | | | |
| Pollution - unspecified | + | | Small-scale |
| Recreational/tourism disturbance | + | + | Large-scale |
| (unspecified) | | | |
| General disturbance from human | + | + | Large-scale |
| activities | | | |
| Mining exploitation/exploration | | + | Large-scale |
| Reservoir/barrage/dam impact: | + | + | Large-scale |
| loss of wetland due to restriction | | | |
| Salination of groundwater | + | + | Large-scale |
| Military activities | + | + | Large-scale |
| Disturbance from transport/roads | + | + | Large-scale |
| Unspecified development: | | + | Large-scale |
| agriculture | | | |
| Unspecified development: urban | | + | Small-scale |
| use | | | |
| 1 | | | |

25. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

| Conservation measure | On-site | Off-site |
|----------------------|---------|----------|
| Other | + | |

No information provided.

26. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

No information provided.

27. Current scientific research and facilities:

e.g. details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

- Bird flight line surveys including infrared monitoring at night.
- Monitoring of bird collisions on aerials.
- Monitoring of cranes and flamingos.
- Monitoring of translocated habitat.

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- Research by the Department of Forests in relation to invasive non-native plant species and bird flight lines.
- Ph.D. research on the flora of Akrotiri Peninsula.
- Studies carried out this year in the context of Project Pluto Supplementary Environmental Work including Hydrogeology and Hydrology, Vegetation and Flora, Mammals and Herpetofauna, Ornithology, Terrestrial Invertebrates, Benthic Macro-invertebrates and Archaeological Desk-Based, Geophysical and Geological Assessment.

28. Current conservation education:

e.g. visitor centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

Occasional TV documentaries.

29. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity

- A. Lady's Mile beach, which is adjacent to the Akrotiri Ramsar Site, is visited by thousands of sea bathers during the summer. Their activities are confined to the area east of the beach road. There are also six restaurants on the beach, which mainly operate during the summer period. The beach track is maintained yearly using local materials, but not hard-topped to encourage traffic. Parking on the beach is prohibited and is limited in parking areas east of the track. However occasional encroachment and parking west of the track is observed, which needs to be stopped under the management plan. There is a regular rubbish collection service, which removes the rubbish generated by visitors and restaurants to an approved tip in Limassol.
- B. There is a permanent station at the south-eastern end of the site, which is used for model-aircraft flying. This activity will be assessed by the management plan and appropriate action recommended.
- C. Car-racing competitions had been organised in the past in the area between Lady's Mile Beach and the salt lake. These competitions have recently been discouraged by the Administration, and organisers informed that such activity in this area would not be allowed in the future. Again this issue will be addressed by the management plan.
- D. The site is regularly visited by bird-watchers and other wildlife enthusiasts. Although they do not appear to be causing disturbance, their access to the site will be better managed in the future for mutual benefit.
- E. Hunting within the site itself is not allowed. Measures are in place against illegal hunting. In the future, these will be improved under the management plan. Also seasonal hunting, which is allowed in areas adjacent to the site, will be assessed appropriately under the management plan.

30. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept. of Agriculture/Dept. of Environment, etc.

Ministry of Defence,

Defence Estates Conservation Office, Blandford House, Farnborough Road, Aldershot, Hants., GU11 2HA, UK

31. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Administrative Secretary, Ministry of Defence,

Sovereign Base Areas Administration,

BFPO 53, Episkopi, Cyprus

32. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 13 above), list full reference citation for the scheme.

Site-relevant references

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Government of Cyprus (2000) Natura 2000 Standard Data Form for 'Alyki Akrotiriou - Ygroviotopos Fasouriou' (Akrotiri Salt Lake – Fassouri Wetlands)

Defence Estates and RPS (2002) Supplementary environmental work for Project Pluto, June 2002

Jalon Consultants and Engineers Ltd & Phedonos Consultants Ltd (1992) Environmental study and management plan for the Akrotiri Salt Lake and Wetlands, Balasha

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