# **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 Bureau. Compilers are strongly urged to provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of maps.

1. Name and address of the compiler of this form:

Dr. H. Metz, Amt der Burgenländischen

Landesregierung, Abt. 5/III, Europaplatz 1, A 7000 Eisenstadt

WHR Univ. Prof. Dr. A. Herzig, Dr. A. Grüll, Amt der

Burgenländischen Landesregierung, Abt. 5, Biologische

## Station, A 7142 Illmitz

Additional information by: Dr. A. Ranner, Amt der Burgenländischen Landesregierung, Abt. 5/III, Europaplatz 1, A-7000 Eisenstadt

2. Date this sheet was completed/updated:

April 2003 and December 2005

3. Country:

Austria

4. Name of the Ramsar site:

Neusiedler See - Seewinkel

5. Map of site included: yes

Refer to Annex III of the Explanatory Note and Guidelines, for detailed guidance on provision of suitable maps.

a) hard copy (required for inclusion of site in the Ramsar List): yes  $\Box$  -or- no X

b) digital (electronic) format (optional): yes X -or- no  $\Box$ 

6. Geographical coordinates (latitude/longitude):

47° 41' – 47° 58' N, 16° 40' – 17° 06' E

7. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

The area is situated some 60 km southeast of Vienna, crossing the border to Hungary (where it is also designated as a Ramsar area).



average 113 m

9. Area: (in hectares)

44 229 ha<sup>1</sup>

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland. Neusiedler See: shallow lake in a flat landscape surrounded by a wide phragmites belt; flood management by an artificial canal (Einserkanal) with a sluice since 1965.

Seewinkel: Approx 30 more or less saline shallow pans surrounded by a patchwork of partly saline humid to dry pastures in an area of intensive agricultural use.

## 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 • 4 • 5 •** 6 • 7 • 8

## 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).

1) The designated area contains a multitude of wetland type habitats, ranging from open water areas and marshes of varying salinity to wet and dry meadows. Especially in the Seewinkel thees habitats form a closely knit mosaic of high diversity. This situation is unique in the continental biogeographical region as defined by the directive 92/43/EWG.

 Regular occurring species from Annex II of the EU Habitats Directive: Myotis blythii, Rhinolophus ferrumequinum, Spermophilus citellus, Lutra lutra, Bombina bombina, Aspius aspius, Misgurnus fossilis, Leucorrhinia pectoralis

3) The designated area contains a multitude of wetland type habitats, ranging from open water areas and marshes of varying salinity to wet and dry meadows. Especially in the Seewinkel these habitats form a closely knit mosaic of high diversity.

<sup>&</sup>lt;sup>1</sup> There is no reduction of the area and no change of the site border. The previously provided size of 60,000 hectares was estimation for both the Austrian and Hungarian parts together. The Austrian part was estimated at about 50,000 hectares before and was now digitalized updated with 44,229 hectare in the Federal Law Gazette (Bundesgesetzblatt).

4) A great number of bird species, mainly migratory, find breeding or wintering places, thus giving the area its importance of european scale. It must be considered therefor as one of the biodiversity hotspots of Europe. (see section 20)

5) During the migratory period the sites supports more than 20.000 waterbirds, mongst Anser anser (20,000), Anser albifrons (30,000), Anser fabalis (4,000) (see section 20)

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:

Pannonic Region (based on flora and vegetation)

b) biogeographic regionalisation scheme (include reference citation):

Niklfeld, H., 1993. Pflanzengeographische Charakteristik Österreichs. In: Mucina, L., Grabherr G. & Ellmauer, Th. (Hrsgb). Die Pflanzengesellschaften Österreichs. Teil I. Gustav Fischer Verlag, Jena, pp 43 - 75

## 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.

## See Information Sheet on Ramsar Wetlands from Nov. 1992

Neusiedler See occupies a tectonic depression which came into existence during the end of the Pleistocene (13.000 - 14.000 years b.p.). The crystalline basement which outcrops at the periphery (Rosalia and Leitha mountain range) and the inner part (hills of Rust) of the catchment area forms the deepest aquiclude of this region. The tertiary sequence of sedimentary rocks and sediments partly consists of permeable gravels, sands and sandstones and partly of impermeable or semipermeable clays, siltstones and silts forming the floor of aquifers.

The quarternary sediments of the area are the sands and gravels of the Parndorfer plateau and the gravels of the Seewinkel.

Chernozems are dominant except where soils with a high percentage of humus, or swamps occur. On the Parndorf plateau lime-free parachernozems are prevalent. The Seewinkel is characterized by the frequent occurrence of saline soils (solonchak and solonetz).

Neusiedleer See has only one major overground tributary, the water level of the small lakes varies, they dry out quite often. Water depth: Lake Neusiedl 1.5 m, small lakes 30-60 cm.

Salinity/acidity: Lake Neusiedl approx. 1200 mg/l; pH 8.5-9.1, small lakes soda concentrations of 5-50 g/l, pH 8.4-11.0

Climate conditions see below 15.

#### 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).

## See Information Sheet on Ramsar Wetlands from Nov. 1992

See also 14 above. The area is situated at the boundary of Austria and Hungary, the lake is transboundary. It is bordered by the spurs of the Eastern Alps, the Ruster Höhenzug (hills of Rust), in the west, and the Leithagebirge in the northwest. Altitudes of about 250 to 500 m a.s.l. are reached. Towards the east and the south the landscape opens to the Lesser Hungarian Plain.

Compared with the usual Central European Climate this region is characterized by a very pronounced Pannonian climate. It is a more continental type of the European transitional climate. The continental character is manifested in a strong fluctuation of the monthly temperature averages, in generally high summer (frequently above 25°C) and annual averages (10-11°C); the average winter minimum is about - 10°C. It is a dry climate with little rainfall (annual average 526 mm/years 1969 – 1993).

#### 16. Hydrological values:

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

Due to Precipitation and evaporation as the main actors in the hydrological scheme the lake and particularly its reed belt act as a sediment and nutrient trap.

17. Wetland Types

#### a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

Marine/coastal: A · B · C · D · E · F · G · H · I · J · K · Zk(a)Inland: L · M · N · O · P · Q · R · Sp · Ss · TpTs · U · Va · Vt · W · Xf · Xp · Y · Zg · Zk(b)Human-made: 1 · 2 · 3 · 4 · 5 · 6 · 7 · 8 · 9 · Zk(c)

#### b) dominance:

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

## Q, R, Sp, Ss, Xf

## 18. General ecological features:

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

Neusiedler See is the largest salt lake in Europe, being 36 km long and 7-15 km wide. The high salt content is mainly due to to carbonates and sulphates originating from underground water which reaches the surface through fissures in the ground layer. The water level fluctuates due to high evaporation rates in summer. The lake is mesotrophic.

Principal vegetation: Phragmites, halophyte flora

Aquatic vegetation: Except of reeds, Utricularia vulgaris, along the small lakes inside the reed belt preponderantly Potamogeton pectinatus and Cladophora

Plant communities in adjacent areas: Along the borders of small lakes saline communities (Festuca, Artemisia) with Lepidium, along the lake's border pastures, transition to fen and Magno-Caricio (large sedge communities)

#### 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.* 

Reedbeds of Phragmites communis cover more then half of the lake area (107 km<sup>2</sup>). Within the open reed-free zone there is a clearly defined region with Spiked Water Milfoil, Myriophyllum spicatum, and Fennel Pond Weed, Potamogeton pectinatus. Along the shore one can find many halophytic plants as Glasswort, Salicornia prostrate, Saltmarsh Grass, Puccinellia spp., Sea Aster, Aster tripolium, and Pepperwort, Lepidium crassifolium.

In the meadows along the north-eastern shore a number of rare plants occur: Yellow Pheasant's Eye Pasque Flower, Pulsatilla grandis, Violet Pasque Flower, P. nigricans, and Wormwood, Artemisia lacciniata.

Other noteworthy species: Salvia austriaca, Iris pumila, Astragalus austriacus, triglochin maritime, Scorconera parviflora.

#### 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*.

<u>Breeding birds (pairs)</u>: Podiceps cristatus, Podiceps nigricollis (0-90), Ardea cinerea (100-150), Ardea purpurea (250-300), Egretta alba (500-750), Nycticorax nycticorax (0-50), Ixobrychus minutus (100-200), Botaurus stellaris (120), Ciconia ciconia (30-40), Platalea leucorodia (40-80), Anser anser (500-550), Anas acuta (0-10), Anas clypeata (50-300), Anas querquedula (100-200), Anas strepera (30-100), Netta rufina (100-200), Aythya nyroca (150-200), Circus aeruginosus (100-150), Circus pygargus (2-10), Porzana parva (12,000-22,000), Porzana porzana (0-50), Rallus aquaticus (3,000-6,000), Charadrius alexandrinus (30-40), Charadrius dubius (40-70), Limosa limosa (50-150), Numenius aquata (10-15), Gallinago gallinago (5-10), Tringa totanus (100-230), Himantopus himantopus (10-20), Recurvirostra avosetta (50-200), Larus melanocephalus (5-40), Sterna hirundo (50-150), Asio flammeus (0-10), Tyto alba (0-5), Athene noctua (1-5), Upupa epops (20-30), Motacilla flava (200-270), Luscinia svecica (30-60), Locustella luscinioides (1,500-1,800), Acrocephalus arundinaceus (1,000-2,000), Acrocephalus melanopogon (8,500-15,500), Panurus biarmicus (10,000), Remiz pendulinus.

Migratory birds (Maxima): Anser anser (20,000), Anser albifrons (30,000), Anser fabalis (4,000), Anas strepera (2,000), Anas crecca (10,000), Anas platyrhynchos (6,000), Anas querquedula (600), Anas clypeata (2,500), Netta rufina (2,500), Aythya ferina (700), Haliaeetus albicilla (12), Circus cyaneus (80), Falco vespertinus (30), Grus grus (300), Recurvirostra avosetta (600), Vanellus vanellus (4,000), Calidris minuta (600), Calidris temminckii (110), Calidris alpina (1,000), Philomachus pugnax (10,000), Lymnocryptes minimus (120), Gallinago gallinago (1,700), Limosa limosa (800), Numenius arquata (250), Tringa erythropus (300), Tringa glareola (500), Larus minutus (1,200), Larus ridibundus (10,000), Larus michahellis (6,000), Chlidonias niger (400), Anthus pratensis (800), Anthus cervinus (30), Carduelis flavirostris (250).

<u>Fish</u>: Cyprinus carpio, Sander lucioperca, Esox lucius, Anguilla anguilla, Alburnus alburnus, Pelecus cultratus, Blicca bjoerkna, Rutilus rutilus, Scardinius erythrophthalmus etc.

#### 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.

Tourism: typical tourism (swimming, sailing, surfing and similar sports) in almost all villages around the lake, but none in the southern part of the lake (national park – nature zone). In most villages also larger holiday settlements in the reedbelt. On small roads around many salt lakes biking with high intensity. Otherwise birdwatching, and also area of specific scientific qualities, studies carried out by Biologische Station Neusiedler See, national park and university of Vienna.

## 22. Land tenure/ownership:

(a) within the Ramsar site:

Lease of southern part of the lake, as well as all connected pastures by the government; large etstates and private property.

(b) in the surrounding area:

Large estates and private property.

Please, would you be so kind to fill/ copy in the required information. Thank you

## 23. Current land (including water) use:

(a) within the Ramsar site:

Harvest of reed, hunting (waterbirds, low game), fishing, agricultural use in the vicinity of the small lakes, between the lakes also intensive as below (b).

(b) in the surroundings/catchment:

Intenisve agriculture, especially wine growing. Presently set aside schemes in arable land and viticulture. Please, would you be so kind to fill/ copy in the required information. Thank you

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

(a) within the Ramsar site:

The main disturbance in the past has been the drainage of the area in order to create arable land in the Seewinkel. This process continued up to the 1960's. Combined with drastic decrease of the traditional agricultural methods and the cattle husbandry large proportions of the wet and dry meadows have been lost. As a consequence of the changed situation of agriculture (on the european scale) and stricter protection measures (National Park) a reverse trend is noticeable. Stabilisation of the level of the lake and interference with the water balance of shallow pans in the Seewinkel for hunting purposes, eutrophication mainly due to wind erosion of agricultural areas within and outside the Ramsar area and intensive tourism and its infrastructures especially in the northern and western parts of the lake posed problems in the past and still continue to do so to a varying degree.

#### (b) in the surrounding area:

Eutrophication by local sewage discharge and nutrient charged sediments carried into the system during spades by the Wulka are to a large degree a problem of the past. It has however to be born in mind, that for all practical purposes the lake acts as a sink for incoming matter; this is buried in the reedbelt and could pose a threat in the future. Wind born eutrophicating material remains to be a factor. A possible threat of yet unknown relevance or magnitude could be the fact, that the Ramsar area is situated directly in the line of the incoming flight traffic of the airport Vienna.

# 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.

Landscape- and Nature conservation area "Neusiedler See - Umgebung"

National park Neusiedler See – Seewinkel (IUCN Cat. II)

These two Reserves enclose the Ramsar area. The protected areas as mentioned in Info sheet on Ramsar Wetlands in Nov. 1992 have been enclosed within the National park and legally ceased to exist as separate entities. Nomination of the two areas mentioned above as Natura 2000 site under the FFH and the Bird Protection Directive (1995).

Declaration as World Cultural Heritage area by the UNESCO in dec. 2001. The Ramsar area plus parts of the Landscape protection- and Nature reserve area form the core of the heritage site.

26. Conservation measures proposed but not yet implemented:e.g. management plan in preparation; official proposal as a legally protected area, etc.Management plans will have to be developed in the context of Natura 2000.Increased harvest of reed during winter (development of suitable methods)

27. Current scientific research and facilities:

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

Biologische Station Neusiedler See, A 7142 Illmitz

University of Vienna

#### 28. Current conservation education:

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

National Park Information Centre, A 7142 Illmitz

Info Centre Lange Lacke, Apetlon (Seewinkelhof WWF)

## 29. Current recreation and tourism:

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

See above 21

plus

regular tourist program (tours, exhibitions, talks etc.) in the National Park organized by the parks Information Centre

#### 30. Jurisdiction:

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

Amt der Burgenländischen Landesregierung, Abt. 5/III – Natur- und Umweltschutz Europaplatz 1, A 7000 Eisenstadt

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.

Amt der Burgenländischen Landesregierung, Abt. 5/III – Natur- und Umweltschutz

Europaplatz 1, A 7000 Eisenstadt

29. Management authority: (name and address of local body directly responsible for managing the wetland)
Amt der Burgenländischen Landesregierung, Abt. 5/III – Natur- und Umweltschutz
Europaplatz 1, A 7000 Eisenstadt
Amt der Burgenländischen Landesregierung, Abt. 5/III – Natur- und Umweltschutz
Biologische Station, A 7142 Illmitz
Nationalpark Gesellschaft Neusiedler See – Seewinkel, Apetloner Hof, A 7143 Apetlon

Österr./Ungar. Gewässer Kommission, BMLFUW, Stubenring 12, A 1010 Wien (as regards the

hydrological features of the lake i.e. operation of the sluice in the Einserkanal)

32. Bibliographical references:

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

In addition to the references made already :

LÖFFLER, H., ed. 1979 - Neusiedlersee: The Limnology of a shallow Lake in Central Europe. Dr. W. Junk by Publ. The Hague-Boston-London

CSAPLOVICS, E., 1989 – Die geodätische Aufnahme des Bodens des Neusiedler Sees Wissenschaftliche Arbeiten aus dem Burgenland Nr. 84, Eisenstadt

DICK, G. e. o. 1994 - Vogelparadies mit Zukunft?, Ramsarbericht 3, Neusiedler See - Seewinkel,

UBA, Wien

BACSATYAI, L., e. o. 1997 - Digitale Geländemodelle des Neusiedler See-

BeckensWissenschaftliche Arbeiten aus dem Burgenland Nr. 84, Eisenstadt

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