Information Sheet on Ramsar Wetlands (RIS) – 2009-2012 version

1. Name and address of the compiler of this form:
Lars Dinesen
Danish Nature Agency - Nature Planning and Biodiversity
Ministry of the Environment
Haraldsgade 53
2100 København Ø
Phone +45 7254 4830
e-mail ladin@nst.dk

Preben Clausen
DCE - Danish Centre for Environment and Energy, and
Department of Bioscience
Aarhus University
Grenåvej 14
DK-8410 Ronde
Denmark
Phone +45 8715 8857/ Fax +45 8715 8902
e-mail pc@dmu.dk

2. Date this sheet was completed/updated:
May 2012

3. Country:
Denmark

4. Name of the Ramsar site:
The precise name of the designated site in one of the three official languages (English, French or Spanish) of the Convention. Alternative names, including in local language(s), should be given in parentheses after the precise name.

Karrebæk, Dybsø and Avnø Fjords
(International No. 159; National No. 20).

5. Designation of new Ramsar site or update of existing site:
This RIS is for (tick one box only):
a) Designation of a new Ramsar site ☐; or
b) Updated information on an existing Ramsar site ☒

6. For RIS updates only, changes to the site since its designation or earlier update:
a) Site boundary and area

The Ramsar site boundary and site area are unchanged: ☐

or

If the site boundary has changed:
i) the boundary has been delineated more accurately ☒; or
ii) the boundary has been extended ☐; or
iii) the boundary has been restricted** ☐

and/or
If the site area has changed:
i) the area has been measured more accurately ☑; or
ii) the area has been extended ☐; or
iii) the area has been reduced** ☐.

** Important note: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

The fjords within the site - as in many other Danish wetlands, suffer from eutrophication, but there are signs of improvement in Dybso Fjord, which is also the most important staging area for water birds. Discontinued grazing of marshes and high predation rates are likely to have had negative effects on breeding meadow birds and terns. Details and relevant references are given below.

7. Map of site:
Refer to Annex III of the Explanatory Note and Guidelines, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:
   i) a hard copy (required for inclusion of site in the Ramsar List): ☑;
   ii) an electronic format (e.g. a JPEG or ArcView image) ☑; Denmark_ramsar20.pdf
   iii) a GIS file providing geo-referenced site boundary vectors and attribute tables ☑.
A comprehensive ESRI ArcView GIS 3.1 shapefile named DKRamsar_WGS84geo is submitted in conjunction with the Danish RIS 2010 update files. The shape is geo referenced and projected in datum WGS84. The shape is composed of five files:
   a) DKRamsar_WGS84geo.shp    b) DKRamsar_WGS84geo.dbf
   c) DKRamsar_WGS84geo.shx    d) DKRamsar_WGS84geo.sbn
   e) DKRamsar_WGS84geo.sbx
   and is considered self-explanatory in its database fields.

b) Describe briefly the type of boundary delineation applied:
e.g. the boundary is the same as an existing protected area (nature reserve, national park, etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

All Danish Ramsar sites are also designated as Special Protection Areas for Birds (SPAs) under the EEC Birds Directive, and most of them as Special Areas of Conservation (SACs) under the EEC Habitats Directive, hence part of the Danish Natura 2000 network. Generally the delineation of the Ramsar-sites are identical to that of the SPAs, follow coastlines or lake shores, but also includes adjacent salt marshes, freshwater (bulrush/reed) marshes and wet meadows.

8. Geographical coordinates (latitude/longitude, in degrees and minutes):
Provide the coordinates of the approximate centre of the site and/or the limits of the site. If the site is composed of more than one separate area, provide coordinates for each of these areas.

55°08’N, 11°42’E

9. General location:
Include in which part of the country and which large administrative region(s) the site lies and the location of the nearest large town.

Coastal area and waters immediately Southwest of the town of Næstved. Administrative regions are Næstved and Vordingborg Municipalities.

10. Elevation: (in metres: average and/or maximum & minimum)
0-13 m

11. Area: (in hectares)
18,949 ha

12. General overview of the site:
Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

Coastal waters with shallow shoals and banks. Two large lagoons. Several islands are cultivated lands with scattered habitation. The long and narrow peninsula of Knudshoved Odde has some cultivated areas and scattered habitation. Commons, salt marshes, reed swamps, and woodland.

13. Ramsar Criteria:
Tick the box under 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). All Criteria which apply should be ticked.

14. Justification for the application of each Criterion listed in 13 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).

**Criterion 2:** The site is an important breeding site for waterbirds, including some species on the current Danish red list (DMU 2007), e.g. White-tailed Eagles (*Haliaetus albicilla*) (Ann. I, EU Birds Dir.; VU), Pintail (*Anas acuta*) (VU), Garganey (*Anas querquedula*) (NT), Common Merganser (*Mergus merganser*) (VU) and Little Tern (*Sterna albifrons*) (Ann. I, EU Birds Dir.; NT), and several other species listed in Annex 1 of the EEC Birds Directive, i.e. Avocet (*Recurvirostra avocetta*), Arctic Tern (*Sterna paradisaea*) and Common Tern (*Sterna hirundo*). The site also holds breeding populations of some species covered by Annex 2 of the EEC Habitats directive, notably the most important Danish breeding sites for Fire-bellied Toad (*Bombina bombina*) (nationally red-listed, NT), but also Great Crested Newt (*Triturus cristatus*) and Common Seal (*Phoca vitulina*) (nationally red-listed, LC) (Storstrøms Amt 2006).

**Criterion 5:** The site regularly holds well over 20,000 staging waterbirds, especially during autumn and mild winters. (For bird count number see justification of criterion 6 and table under point 22).

**Criterion 6:** The site regularly supports more than 1% of the individuals in the populations of the following species (average of available count data tabulated below from 2003-2009 compared to WPE4):

- Mute Swan (*Cygnus olor*) 3,737 – 1.5% of the NW Mainland & Central Europe population
- Whooper Swan (*Cygnus cygnus*) 733 – 1.2% of the of the Northwest Mainland Europe population
- Greylag Goose (*Anser anser*) 5,969 – 1.2% of the NW Europe/SW Europe population
- Pintail (*Anas acuta*) 1,438 – 2.4% of the NW Europe population
- Coot (*Fulica atra*) 35,000 – 2.0% from the Northwestern Europe (win) population

The site was also internationally important in the immediate past for Shoveler (*Anas clypeata*) from the NW/Central Europe population (e.g. Clausen *et al.* 2004), but comprehensive counts of this species during 2003-2009 has rarely been carried out at appropriate times of the year. The site previously was
used by internationally important numbers of Red-breasted Merganser (*Mergus serrator*), but numbers exceeding the current 1% criterion of 1,700 birds have only been recorded a single year since 1998, and not during this reporting period (2003-2009). The site was in the past also internationally important for Tufted Duck (*Aythya fuligula*) from the Northwestern Europe population, but numbers in the present reporting period are slightly below current 1% criteria (annual average maxima of 10,689 individuals 2003-2009 represents 0.9% of the fly-way population.). Internationally important numbers of Golden Plovers (*Pluvialis apricaria*, possibly both subspecies *apricaria* and *altifrons*) occasionally use the site (Clausen *et al.* 2004)

15. **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:
Continental

b) biogeographic regionalisation scheme (include reference citation):
Biogeographical Regions Europe, 2005, European Environment Agency

For Criterion 2, species are listed either:

i) with reference to their presence on the International lists of species of conservation concern, i.e. listed on the most recent IUCN Red list and according to most recent criteria for conservation concern (IUCN 2007).

ii) or with their presence on the National lists of species of conservation concern. The latter are under transition from published information to online information which means that for some taxa older IUCN criteria for red listing have been applied (e.g. fish, Stoltze & Pihl 1998), while for other taxa the most recent IUCN criteria are adopted (e.g. birds, amphibians DMU 2007).

iii) or with reference to their presence on Annex 1 of the EEC Birds Directive, or Annex 2 of the EEC Habitats Directive, and are considered threatened in the European Union

16. **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.

No specific information available.

17. **Physical features of the catchment area:**
Describe the surface area, general geology and geomorphological features, general soil types, and climate (including climate type).

No specific information available.

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

No specific information available.

19. **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 • Tp • Ts • U • Va • Vt • W • Xf • Xp • Y • Zg • Zk(b)
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.

A,B,J,H,E,O

20. General ecological features:
Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

The surroundings of both Kørrebæksminde-Dybsø Fjord and Avnø Fjord include several small and larger saltmarsh areas, and both fjords has a fairly rich shallow-watered brackish plant community composed of Ruppia spp., Potamogeton pectinatus, Zanichellia palustris, Charophytes, and Zostera marina and this provides food for the notable and high concentrations of herbivorous and granivorous waterbirds. White-tailed Sea Eagles breed in an adjacent forest.

21. Noteworthy flora:
Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14. 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.

The Ramsar site holds a wide variety of habitats with many plant species incl. rare and threatened species. Comprehensive lists of these are provided by Storstrøms Amt (2006).

22. 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.

The site holds one of the recently established breeding pairs of White-tailed Sea Eagle (Haliaetus albicilla) in Denmark, and the pair has laid eggs annually and produced 9 fledged youngs during the present reporting period 2003-2009 (Pedersen & Ehmsen 2010). The site also holds some fairly large and regionally important concentrations of breeding meadow birds (waders) and coastal colonial breeders (gulls and terns), including several nationally redlisted and/or and species listed in Annex 1 of the EEC Birds Directive, e.g. Pintail (Anas acuta), Garganey (Anas querquedula), Common Merganser (Mergus merganser) and Little Tern (Sterna albifrons), e.g. Avocet (Recurvirostra avocetta), Arctic Tern (Sterna paradisaea) and Common Tern (Sterna hirundo).

Table giving the most recent information about breeding birds in the Ramsar site (from Jørgensen 2006, Storstrøms Amt 2006, Nyegaard & Grell 2008, Pedersen & Ehmsen 2010). The list only includes the rare species mentioned above, but Jørgensen (2006) lists the commoner species as well. – indicates information is not available. Numbers do not necessarily represent totals, except for Haliaetus albicilla.

<table>
<thead>
<tr>
<th>Breeding birds</th>
<th>No. of breeding pairs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Species \ Year</strong></td>
<td>2002</td>
</tr>
<tr>
<td>Anas acuta</td>
<td>1</td>
</tr>
<tr>
<td>Anas querquedula</td>
<td>1</td>
</tr>
<tr>
<td>Mergus merganser</td>
<td>-</td>
</tr>
<tr>
<td>Haliaetus albicilla</td>
<td>1</td>
</tr>
<tr>
<td>Recurvirostra avosetta</td>
<td>45</td>
</tr>
<tr>
<td>Sterna paradisaea</td>
<td>17</td>
</tr>
<tr>
<td>Sterna albifrons</td>
<td>6</td>
</tr>
<tr>
<td>Sterna hirundo</td>
<td>20</td>
</tr>
</tbody>
</table>
Table giving the most recent information about staging waterbirds in the Karrebækminde, Dybsø and Avnø fjords area. Published and unpublished data from NERI. Numbers given are maxima of several species of waterbirds. Counting intensity varies over the years, with most comprehensive coverage 2008-09. For offshore species marked by * the 2004 and 2008 total count from data presented by Petersen et al. (2006b, 2010) are the only comprehensive count available from the period 2003-2009. Wintering eagle numbers are from Ehmsen & Pedersen (2006, 2007), in recent years > 20 birds have been found in the area (Pedersen & Ehmsen 2010).

<table>
<thead>
<tr>
<th>Species \ Year</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tachybaptus ruficollis</td>
<td>-</td>
<td>114</td>
<td>54</td>
<td>22</td>
<td>90</td>
<td>231</td>
<td>162</td>
</tr>
<tr>
<td>Podiceps cristatus</td>
<td>-</td>
<td>25</td>
<td>64</td>
<td>98</td>
<td>240</td>
<td>215</td>
<td>216</td>
</tr>
<tr>
<td>Phalacrocorax carbo</td>
<td>-</td>
<td>123</td>
<td>8</td>
<td>28</td>
<td>287</td>
<td>610</td>
<td>142</td>
</tr>
<tr>
<td>Ardea cinerea</td>
<td>-</td>
<td>19</td>
<td>13</td>
<td>22</td>
<td>9</td>
<td>24</td>
<td>19</td>
</tr>
<tr>
<td>Cygnus olor</td>
<td>410</td>
<td>5822</td>
<td>2645</td>
<td>3786</td>
<td>2603</td>
<td>6697</td>
<td>4198</td>
</tr>
<tr>
<td>Cygnus cygnus</td>
<td>16</td>
<td>2002</td>
<td>541</td>
<td>529</td>
<td>18</td>
<td>1607</td>
<td>417</td>
</tr>
<tr>
<td>Anser fabalis</td>
<td>1200</td>
<td>50</td>
<td>1180</td>
<td>30</td>
<td>40</td>
<td>-</td>
<td>500</td>
</tr>
<tr>
<td>Anser albirostris</td>
<td>-</td>
<td>28</td>
<td>-</td>
<td>-</td>
<td>5</td>
<td>105</td>
<td>-</td>
</tr>
<tr>
<td>Anser anser</td>
<td>2895</td>
<td>4630</td>
<td>3825</td>
<td>7450</td>
<td>4950</td>
<td>142</td>
<td>200</td>
</tr>
<tr>
<td>Branta canadensis</td>
<td>4650</td>
<td>5065</td>
<td>5730</td>
<td>1075</td>
<td>1970</td>
<td>790</td>
<td>3009</td>
</tr>
<tr>
<td>Branta bernicla bernicla</td>
<td>-</td>
<td>3950</td>
<td>850</td>
<td>950</td>
<td>3975</td>
<td>4425</td>
<td>4980</td>
</tr>
<tr>
<td>Tadorna tadorna</td>
<td>-</td>
<td>169</td>
<td>2271</td>
<td>26</td>
<td>-</td>
<td>228</td>
<td>35</td>
</tr>
<tr>
<td>Anas penelope</td>
<td>30</td>
<td>13110</td>
<td>7125</td>
<td>3765</td>
<td>5155</td>
<td>10025</td>
<td>11925</td>
</tr>
<tr>
<td>Anas strepera</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>-</td>
</tr>
<tr>
<td>Anas creca</td>
<td>-</td>
<td>1375</td>
<td>1480</td>
<td>825</td>
<td>2175</td>
<td>3210</td>
<td>3300</td>
</tr>
<tr>
<td>Anas platyrhynchos</td>
<td>125</td>
<td>3420</td>
<td>2265</td>
<td>1050</td>
<td>1875</td>
<td>7751</td>
<td>4810</td>
</tr>
<tr>
<td>Anas acuta</td>
<td>-</td>
<td>2070</td>
<td>1035</td>
<td>1570</td>
<td>825</td>
<td>300</td>
<td>1830</td>
</tr>
<tr>
<td>Anas clypeata</td>
<td>-</td>
<td>207</td>
<td>308</td>
<td>340</td>
<td>35</td>
<td>275</td>
<td>355</td>
</tr>
<tr>
<td>Aythya ferina</td>
<td>300</td>
<td>125</td>
<td>1025</td>
<td>650</td>
<td>4100</td>
<td>1030</td>
<td>300</td>
</tr>
<tr>
<td>Aythya fuligula</td>
<td>12000</td>
<td>20475</td>
<td>900</td>
<td>17300</td>
<td>6400</td>
<td>8600</td>
<td>9150</td>
</tr>
<tr>
<td>Somateria mollissima</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>53</td>
<td>-</td>
</tr>
<tr>
<td>Clangula hyemalis</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>Bucephala clangula</td>
<td>75</td>
<td>2495</td>
<td>30</td>
<td>15</td>
<td>490</td>
<td>885</td>
<td>977</td>
</tr>
<tr>
<td>Mergus albellus</td>
<td>-</td>
<td>166</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>285</td>
<td>621</td>
</tr>
<tr>
<td>Mergus serrator</td>
<td>-</td>
<td>145</td>
<td>15</td>
<td>8</td>
<td>90</td>
<td>375</td>
<td>125</td>
</tr>
<tr>
<td>Mergus merganser</td>
<td>-</td>
<td>1585</td>
<td>-</td>
<td>-</td>
<td>5</td>
<td>188</td>
<td>135</td>
</tr>
<tr>
<td>Haliaeetus albicilla</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>9</td>
<td>5-7</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Circus cyaneus</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Falco peregrinus</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Falco rusticolus</td>
<td>-</td>
<td>34999</td>
<td>24500</td>
<td>28400</td>
<td>20350</td>
<td>23650</td>
<td>24175</td>
</tr>
<tr>
<td>Phalacrocorax carbo</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>900</td>
<td>2000</td>
</tr>
<tr>
<td>Vanellus vanellus</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1500</td>
<td>1900</td>
<td>1700</td>
</tr>
<tr>
<td>Calidris alpina</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Numenius arquata</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>220</td>
<td>200</td>
<td>210</td>
</tr>
<tr>
<td>Sum of annual maxima</td>
<td>21701</td>
<td>102159</td>
<td>50792</td>
<td>73764</td>
<td>54786</td>
<td>84642</td>
<td>82515</td>
</tr>
</tbody>
</table>

Notes: - does not necessarily mean the species was absent — rather not counted/reported. Averages are thus computed based on years with numbers reported. Offshore species (*) have been counted using transect surveys. Numbers mentioned are actual counted numbers, true numbers are probable 3-5 times higher (as demonstrated by Petersen et al. 2006b using spatial modelling for selected species).
23. Social and cultural values:

a) Describe if the site has any general social and/or 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:

No specific information.

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning?

If Yes, tick the box □ and describe this importance under one or more of the following categories:

i) sites which provide 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) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:

iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:

iv) sites where 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:

24. Land tenure/ownership:

a) within the Ramsar site:
Private owned lakes, wetlands and forests. Dybsø and Avnø are state-owned areas.

b) in the surrounding area:
As most other Danish Ramsar-sites, this site is surrounded by a rural landscape composed of a mixture of private owned agricultural areas and forests.

25. Current land (including water) use:

a) within the Ramsar site:
Grazing and forestry, and a few agricultural areas. Water from adjacent catchments is not used for irrigation purposes.

b) in the surroundings/catchment:
Likewise, farmland, grazing and forestry. A single large city, Næstved (c. 42,000 inhabitants) is found immediately east of Karrebæksminde Fjord.

26. 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:

Potential threats are:

i) Overgrowth of salt marshes due to discontinuation of grazing by cattle. Storstroms Amt (2006) points out that those areas where Jorgensen (2006) found most breeding birds are generally
well-managed, but many salt marshes especially around Dybso Fjord are ungrazed or poorly managed.

ii) Pollution due to surplus of nutrients in coastal waters. All three fjords and especially Karrebæksminde Fjord suffer from eutrophication, as evidenced from regular blooms of filamentous algae, but signs of improvement have been noticed recently in Dybso Fjord, resulting in improved status of Charophytes but not yet of Zostera (Storstrøms Amt 2006).

iii) Disturbance by people engaged in leisure activities – an increasingly important activity on the site is considered a potential threat especially of the breeding birds, less so on staging waterbirds (Storstrøms Amt 2006).

iv) Several of the ducks, waders and terns breeding on saltmarshes in the area have been declining in recent years. Declines are likely linked to heavy predation pressure, rather than mismanagement of marshes on most sites (Jørgensen 2006).

At present the main factors adversely affecting the site’s ecological character are eutrophication of marine waters, environmental harmfull substances in marine fauna, overgrowing of saltmarshes, drains and ditches in saltmarshes, and predation.

b) in the surrounding area:

No specific information.

27. Conservation measures taken:

a) List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar site:

In particular, if the site is partly or wholly a World Heritage Site and/or a UNESCO Biosphere Reserve, please give the names of the site under these designations.

Nature conservation: Enø, Dybso, Knudshoved, and Stejlebanken, about 300 hectares. Saltmarshes and reed swamps along Dybso Fjord (195 hectares) are protected since 1988. Avnø has been protected by the nature conservation act (2001).

An existing wildlife reserve at Fladstrand was enlarged to include Krageholm Strøm and Hestevåd (Karrebæksminde-Dybso Fjorde) in 1997, and the 1410 ha new reserve includes areas with no public access in the breeding season of waterbirds on the most important salt marshes for breeding meadow birds and terns, as well as a zonation of shooting restrictions, involving areas with complete shooting bans, areas with restrictions on any mobile hunting activities, as well as restrictions on wind-surfing activities and speed boating. In Avnø Fjord a 2372 ha reserve was established in 2001, where shooting of ducks from motorboats is prohibited. Both reserves were established as parts of the new Danish hunting-free network of reserves (Madsen et al. 1998, Clausen et al. 2004).

In cooperation with private owners the former Storstrøms County re-established former management, especially extensive grazing of the saltmarshes, in order to provide better conditions for breeding and staging waterbirds.

The whole Ramsar site is protected under EU legislation, and included in:
Natura 2000-site No. 169
Special Protection Area for Birds (SPA) No. 81, and almost identical to Special Area of Conservation (SAC) No. 148 (1948 ha not included in the SAC but included in the Ramsar Site and SPA is mainly forests and farmland; Storstrøms Amt 2006).

b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):
c) Does an officially approved management plan exist; and is it being implemented?

A management plan for the state-owned area of Avnø has been approved, and the implementation has been finished in 2010.

A management plan for the state-owned area of Dybsø has been approved and implemented with grazing all year round with Galloway cattle.

A LIFE-project on the rare toad *Bombina bombina* has been carried out on Enø, see: www.LIFE-Bombina.de

Vordingborg municipality has approved a management plan for the protected area Knudshoved Odde. Large overgrown areas have been cleared for scrubs and bushes in 2009 in order to improve conditions for the rare toad species Bombina bombina and for the nature type of dry grasslands.

For all Danish Ramsar sites, being part of the Danish Natura 2000 network, conservation status base-line reports were finalised in 2006 by the former counties, and published by the regional Environment Centres of the Agency for Spatial and Environmental Planning in 2007. In 2011 Natura 2000 plans were issued by the Danish Ministry of Environment/Danish Nature Agency setting up site-specific nature goals and priorities for all Danish Natura 2000 sites, including all Danish Ramsar sites. Parallel to this initiative on Natura 2000 sites, river basin management plans were likewise issued by the Danish Ministry of the Environment/Danish Nature Agency for all Danish river basins in 2011, aimed at meeting demands from the EU Water Framework Directive, hence to improve water quality and ecological status in wetland catchments and coastal areas.

National Ramsar site No. 20 is covered by Natura 2000 plan No. 169 (Naturstyrelsen 2011a) and river basin management plan No. 2.5 (Naturstyrelsen 2011b).

d) Describe any other current management practices:

28. Conservation measures proposed but not yet implemented:

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

During 2012 the Government and Municipalities will develop site-specific management action plans to meet the goals of the Natura 2000 and river basin management plans.

29. Current scientific research and facilities:

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

In 2003 Denmark launched the NOVANA programme. This programme forms the basis for future nature and water quality assessments in Denmark, and as such also supports the administration of the Ramsar site networks. NOVANA is an acronym that could be translated to English as NMWANA (New Monitoring programme for WAter quality and NAture), and aims at fulfilling the Danish obligations with regards to reporting conservation status of species and habitats covered by the EEC Birds and Habitats Directives annexes, as well as water quality and associated target species covered by the National 3rd Action Plan for the Aquatic Environment (Vandmiljoplan 3) as well as the EEC Water Framework Directive. The programme is described by Bijl et al. (2007). A first 'pre'-NOVANA assessment of the national conservation status of birds was published in 2003, and translated to English in 2006 (Pihl et al. 2006). National criteria for assessing favourable conservation status for the listed species and habitats were likewise published in 2003, and translated to English in 2007 (Sogaard et al. 2007), except for marine habitats, published solely in Danish (Dahl et al. 2005a). First assessments of reference conditions and development of Ecological Quality Objectives (EQOs) related to the Water Framework Directive were published in 2005-2006 (Dahl et al. 2005b, Petersen et al. 2006). Water bird monitoring programmes
involves complete national mid-winter surveys every third year (e.g. Petersen et al. 2006b), and annual complete counts of selected species groups (e.g. swans, geese, dabbling ducks, rare breeding birds, e.g. e.g. Søgaard et al. 2006, 2007). The dabbling duck monitoring programme is built upon the much more comprehensive reserve monitoring programme from 1994-2001 (Clausen et al. 2004). Annual assessments of water quality are also available (latest summary report, Nordemann Jensen et al. 2010).

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:
e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

At Avnø a visitors center has been established with facilities for schools, observation hides, nature trails, information booklets and information boards. A new bird observation tower was built in 2010. Nature trail, information brochure and information boards at Knudshoved Odde. Brochures and information boards at the wildlife reserves.

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

Many tourists at Gavnø, Enø and Karrebæksminde.
Recreational sailing, angling and hunting.

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

National legislation on Nature Conservation and Hunting regulations, as well as national administration of the Ramsar Convention and EEC Birds and Habitats Directives: Ministry of the Environment.
National legislation on Agriculture and Fisheries: Ministry of Food, Agriculture and Fisheries.
Local administration and implementation of Nature Conservation: Municipalities listed below under point 33.

33. 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.

Municipalities:
Næstved Kommune
Rådmandshaven 20
4700 Næstved

Vordingborg Kommune
Valdemarsgade 43
Vordingborg

Local unit of the Nature Agency
Naturstyrelsen, Storstrom
Hannenovvej 22
4800 Nykøbing F.
Tel: +45 72543000
E-mail: sto@nst.dk

34. Bibliographical references:
Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.


http://www2.dmu.dk/Pub/FR606.pdf

http://www2.dmu.dk/Pub/AR261.pdf

http://www2.dmu.dk/Pub/FR570.pdf

http://www.sns.dk/1/pdf/rollis.pdf

http://www2.blst.dk/download/nvk/plannotater/169_Karrebaek_natur_2006.pdf

http://www2.dmu.dk/1_viden/2_Publikationer/3_fagrapporter/rapporter/FR582.pdf

http://www2.dmu.dk/Pub/FR647.pdf

http://www2.dmu.dk/Pub/FR644.pdf

Vandmiljøplan 3. – see 
http://www.vmp3.dk/

Please return to: Ramsar Convention Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland
Telephone: +41 22 999 0170 • Fax: +41 22 999 0169 • e-mail: ramsar@ramsar.org