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

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

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DD MM YY

Designation date | Site Reference Number

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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.

Filsø (International No. 140; National No. 1)

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)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:

No major changes to the ecological character of the site are known – but improved management are foreseen in the immediate future, due to a major nature restoration effort.

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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_ramsar1.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 2008 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.

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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°42'N, 08°15'E

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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.

The site is located 0-10 km from the North Sea on the migratory route along the West coast just between Ringkøbing Fjord (Ramsar Site, International No. 141, National No. 2) and the northern part of the Wadden Sea (Ramsar Site, International No. 356; National No. 27).

The nearest town is Varde approx. 20 km to the south-east. The administrative region is Varde Municipality.

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

11. Area: (in hectares)
4,266 hectares

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

Lake Filsø in south-western Jutland is the remaining part of a greater (about 3,000 hectares in 1800), shallow freshwater lake and wetland area, which had been drained and reclaimed for agricultural purposes since 1858. Today the main part of the area (about 1,200 hectares) is still used for intensive farming. The existing wetland (about 150 hectares) is currently under active nature management. The remaining part of the site consists of heathland and dry grass-lands.

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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.

1	2	3	4	5	6	7	8	9
❑	☒	❑	☒	☒	☒	❑	❑	❑

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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 lake is one of the only remaining freshwater lakes in West Jutland. A large number of submerged plant species has been recorded, including *Crassula aquatica (listed as CR* on the Danish Red List; DMU 2007).

Breeding waterbirds from the Danish red list and/or mentioned on the EU Birds Directive Annex I include: Bittern (*Botaurus stellaris,* Ann. I, EU Birds Dir.), Spotted Crake *(Porzana porzana)*(Ann. I, EU Birds Dir.), Marsh Harrier *(Circus auruginosus)*(Ann. I, EU Birds Dir.).

Criterion 4: The lake and surrounding meadows and pastures facilitate important staging and breeding possibilities for waterbirds. The adjacent farmland is intensively used as foraging areas for waterbird species such as Pink-footed Goose, Grey-lag Goose and Whooper Swan. The site is one of the most important staging areas in Denmark for the Pink-footed Goose.

Criterion 5: The site regularly supports more than 20,000 waterbirds and up to 36,576 have been recorded 2004-2009.

Criterion 6: Lake Filsø regularly supports more than 1% of the individuals in the populations of the following species (average of available count data tabulated below for 2004-2009 compared to WPE4):

Pink-footed Goose (*Anser brachyrhynchus*) 14,242 – 33.9% of the Svalbard/NW Europe population
Grey-lag Goose (*Anser anser*) 6,552 – 1.3% of the NW Europe/SW Europe population

Previosly mentioned internationally important numbers of Whooper Swan (*Cygnus cygnus*) from the NW Mainland Europe population, Bewick´s Swan (*Cygnus bewickii*) from the W Siberia/NE & NW Europe population, and Pintail (*Anas acuta*) from the Northwestern Europe population have not been recorded in recent years.

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:
Atlantic

b) biogeographic regionalisation scheme (include reference citation):
Biogeographical Regiosn 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 concervation concern (IUCN 2007).
ii) or with reference to their presence on the National lists of species of concervation concern. The latter are under transition from published information to online information which means that for some taxa older IUCN criteria for red listning 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 2008).
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.

Lake Filsø was originally a coastal lagoon with an open connection to the North Sea. For about 3,000 years ago the open connection was closed by drifting sand and accumulation of gravel in combination with a relative land rise. Today the connection to the sea is a narrow and regulated river. The irrigated farmland is drained by a pumping-system discharging the nutrient rich water into the river. The water from the drainage system is not affecting the water in the lake.
The water depth in the lake is about 0.75 meter in average. A lock in the river ensures a stable water level. One major stream from the catchment (about 90 km²) flow into the lake and discharge a decreasing amount of nutrients from adjacent farmland.

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.

The pumping scheme within the farmland (mainly downstream the lake) is discharging surface water. Currently the hydrological function of the remaining lake should support the selfpurification of the surface water from the catchment. The lake will to a certain extent function as a sediment trap (sand and silt from the catchment). The sediment contains nutrients from adjacent farmland. However, the amount of nutrients is decreasing due to the current effect of the Action Plan for the Aquatic Environment. The outlet from the lake and farmland into the North Sea is often blocked by sand accumulated along the

coastline.

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)

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.

O, W, 3, M, 9

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.

Farmland is the dominating feature of the site (1,200 hectares). The lake covers an area of 90 hectares, and including adjacent meadows, pasture and reedbeds (about 150 hectares) and shrub (about 200 hectares) the habitats represent the most important wetland areas of the site. The remaining part of the site consists of heathland and dry grass-land.

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*.

A large number of submerged plant species has been recorded, including a number of species on the Danish red list e.g. *Crassula aquatica* and *Elatine hydropiper*. Their distribution in the lake is very limited.

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*.

Breeding waterbirds: Table giving the most recent information about breeding waterbirds in the Ramsar site. Published and unpublished data from the NOVANA programme of the Ministry of Environment and DCE, supplemented with data from the Birdlife Denmark citizen science portal DOFbasen on selected breeding species covered by the EEC Birds Directive Annex 1. Numbers given are annual breeding populations of the species listed. Counting intensity varies over the years. Note: 0 does not necessarily mean the species was absent – rather not counted/reported

	Breeding population (in pairs)					
Species \ Year	2004	2005	2006	2007	2008	2009
Botaurus stellaris	2	1	3	1	1	0
Circus pygargus	0	1	0	0	0	0

Note: this site has not been subject to intensive monitoring programmes. Absence of e.g. Spotted Crake *(Porzana porzana)* and Marsh Harrier *(Circus auruginosus) in the table might thus represent missing coverage rather than absence of these species.*

Migratory waterbirds: Table giving the most recent information about staging waterbirds in the Ramsar site. Published and unpublished data from the NOVANA programme of the Ministry of Environment and DCE, supplemented with data from the Birdlife Denmark citizen science portal DOFbasen on migratory species of national responsibility (for details see Miljø- og Energiministeriet, Skov- og Naturstyrelsen 1999), and selected migrant species (e.g. some raptors and *Charadrius morinellus*) covered by the EEC Birds Directive Annex 1. Numbers given are annual maxima of the species listed. Counting intensity varies over the years. Note: 0 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).

	Annual Maxima						**Average**	
Species \ Year	2004	2005	2006	2007	2008	2009		
Tachybaptus ruficollis	0	0	0	0	2	0	2	
Phalacrocorax carbo	15	10	4	5	0	5	8	
Ardea cinerea	1	0	0	0	1	0	1	
Cygnus olor	30	37	18	30	31	12	26	
Cygnus columbianus	116	500	67	65	62	122	155	
Cygnus cygnus	263	80	191	125	350	295	217	
Anser fabalis	1	0	2	0	2	0	2	
Anser fabalis rossicus	0	0	0	0	0	2	2	
Anser brachyrhynchus	8800	4050	8800	25000	17100	21700	14242	
Anser albifrons albifrons	0	0	265	0	52	0	159	
Anser anser	16700	10515	6122	675	2450	2850	6552	
Branta canadensis	0	3	0	0	0	0	3	
Branta leucopsis	280	300	180	10	8	4	130	
Branta bernicla bernicla	2	0	0	0	0	0	2	
Branta bernicla hrota	1	0	0	0	0	0	1	
Tadorna tadorna	0	0	0	0	10	0	10	
Anas penelope	80	18	30	63	300	40	89	
Anas strepera	0	5	0	0	0	0	5	
Anas crecca	120	50	45	295	350	960	303	

Anas platyrhynchos	1130	191	220	155	350	505	425	
Anas acuta	100	17	5	10	3	27	27	
Anas clypeata	8	3	0	0	0	1	4	
Aythya ferina	0	5	40	0	15	30	23	
Aythya fuligula	28	8	23	4	17	10	15	
Melanitta nigra	0	0	0	1	0	0	1	
Bucephala clangula	1	1	0	2	1	0	1	
Mergus albellus	1	5	1	5	2	6	3	
Mergus serrator	1	0	0	0	0	0	1	
Mergus merganser	36	36	45	29	9	5	27	
Haliaeetus albicilla	1	0	1	0	1	1	1	
Circus aeruginosus	0	0	1	0	0	0	1	
Circus cyaneus	5	4	6	2	2	3	4	
Pandion haliaetus	1	1	0	1	1	3	1	
Falco columbarius	2	1	1	1	1	0	1	
Falco peregrinus	2	2	1	2	2	1	2	
Fulica atra	200	210	11	1	1	0	85	
Charadrius morinellus	75	14	127	25	8	0	50	
Pluvialis apricaria	5000	8000	20000	2000	2250	6000	7208	
Pluvialis squatarola	0	0	1	0	0	0	1	
Vanellus vanellus	0	253	355	0	0	0	304	
Calidris canutus	6	0	0	0	0	0	6	
Calidris alba	0	5	12	0	0	0	9	
Calidris alpina	100	10	0	0	25	0	45	
Gallinago gallinago	0	0	1	0	0	0	1	
Tringa nebularia	0	1	1	0	8	0	3	
Sterna caspia	0	0	0	2	0	0	2	
Sum of annual maxima	33106	24335	36576	28508	23414	32582		

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:

In general the public has no access to the area. However, from a viewpoint the huge number of waterbirds, especially geese, in the lake and on farmland habitats can easily be observed. There is no commercial fishing in the lake, but interested people have the opportunity to obtain a fishing licence for angling in the river. This activity is in particular popular among tourists visiting the area. Søvigsund, Søndre Landkanal and Henne Mølleå are canoeing areas.
There is hunting for geese and other waterbirds as well as hunting for red deer.

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. The core area of the Ramsar site (2,320 ha) was purchased in 2011 by the nature conservation oriented charity Aage V. Jensen Naturfond.

b) in the surrounding area:

Private on the east, north and north-east sides; the State represented by the Ministry of Environment has extensive coniferous plantations to the south-west and south.

25. Current land (including water) use:

a) within the Ramsar site:

Meadows and pasture adjacent to the lake is leased to neighbouring farmers for cattle grazing. A small scale income is gained from reed harvesting. The main industry is crop farming on the 1,200 hectares of arable land.

b) in the surroundings/catchment:

Farmland and extensive forestry. There are no larger urban developments (>25,000 people) within 10 km from the site.

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:

In the past reclamation and drainage significantly adversed the site from an outstanding lake ecosystem to farmland. Due to the implementation of a wetland restoration scheme, accomplished in 1993, and grassland management the ecological quality of the lake and adjacent waterlogged areas is currently improving.

b) in the surrounding area:

The current National 3rd Action Plan for the Aquatic Environment and the new river basin management plan (see below) is foreseen to improve the water quality of the catchment. Changes in land use in adjacent areas to watercourses will minimise the discharge of nutrients. Further, sewage plants in towns and villages have significantly reduced the discharge of pollutants, especially phosphorus.

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: The lake, other waterlogged areas and the heathland are covered by a nature conservation scheme from 1958, involving about 860 hectares. The management practice of the wetlands is focusing on the improving of the ecological character of the site.

The whole Ramsar site is protected under EU legislation, and included in:
Natura 2000-site No. 84
Special Protection Area for Birds (SPA) No. 56, and
Special Area of Conservation (SAC) No. 73.

b) If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):

Ia ❑;Ib ❑; II ❑; III ❑; IV ❑; V ❑; VI ❑

c) Does an officially approved management plan exist; and is it being implemented?:

A management plan for the state owned 274 hectares out of the Ramsar sites 4266 hectares is being implemented. Grazing and other current management practices are being implemented in this area.

For all Danish Ramsar sites, being part of the Danish Natura 2000 network, concervation 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. 1 is covered by Natura 2000 plan No. 84 (Naturstyrelsen 2011a) and river basin management plan No. 1.10 (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.

The Aage V. Jensen Naturfond is planning a major nature restoration effort. Reestablishment of a 915 ha lake Filsø in autumn 2012 is the main feature, but it will also involve creation of more wet meadows and marshes in the surroundings of the lake. The project is described in an Environmental Impact Assessment report. This and further details are available through the website
http://www.avjf.dk/natur/filso/

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 (**N**ew **M**onitoring programme for **WA**ter quality and **NA**ture), 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 (Vandmiljøplan 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 (Søgaard 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. 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).

Monitoring of water quality, aquatic vegetation, fish stocks, breeding birds and the effect of management measures is currently carried out. The birdlife is included in the above mentioned monitoring programme.

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.

The site is described in various information brochures for tourists and in books about the countryside.

31. Current recreation and tourism:

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

The site is not used for recreation/tourism apart from sport fishing in the river.

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.

<u>Municipality</u>
Varde kommune
Bytoften 2
6840 Oksbøl
Tel: +45 79946800
E-mail: vardekommune@varde.dk

<u>Local unit of the Nature Agency</u>
Naturstyrelsen, Blåvandshuk
Ålholt
Ålholtvej 1
6800 Varde
Tel: +45 72543000
E-mail : blh@nst.dk

34. Bibliographical references:

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

Bijl, L. van der, Boutrup, S. & Nordemann Jensen, P. (ed.) (2007): NOVANA. Det nationale program for overvågning af vandmiljøet og naturen. Programbeskrivelse 2007-09 - del 2. Danmarks Miljøundersøgelser, Aarhus Universitet. - Faglig rapport fra DMU 615: 120 pp. http://www2.dmu.dk/Pub/FR615.pdf

Clausen, P., Bøgebjerg, E., Hounisen, J.P., Jørgensen, H.E. & Petersen, I.K. (2004): Reservatnetværk for trækkende vandfugle. En gennemgang af udvalgte arters antal og fordeling i Danmark 1994-2001. Danmarks Miljøundersøgelser. - Faglig rapport fra DMU 490: 144 pp. http://www2.dmu.dk/1_viden/2_Publikationer/3_fagrapporter/rapporter/FR490.PDF

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