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**COMMITTEE FOR THE ACTIVITIES OF THE COUNCIL OF EUROPE  
IN THE FIELD OF BIOLOGICAL AND LANDSCAPE DIVERSITY**

**CO-DBP**

**Group of specialists - European Diploma**

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**"De Oostvaardersplassen" Nature Reserve  
(The Netherlands)**

**APPLICATION**

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**staatsbosbeheer**

## European Diploma for 'De Oostvaardersplassen' Nature Reserve in the Netherlands

### Application Form

(as mentioned in the Regulations for the European Diploma for Protected Areas)

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Driebergen (NL), november 1997

## 1. Type of Natural Area

The nature reserve 'De Oostvaardersplassen' is an extensive marshland area with large landscape variations: from reed marshes to swamp forests and from grasslands to open water. The area is of great importance to all birdlife. Both, breeding birds, migratory birds and wintering birds are observed. The natural site is situated in the newest polder of the IJsselmeer area, Zuidelijk Flevoland, in the middle of what was once the Zuiderzee. The site lies about four metres below sea level. Since the first reclamation activities, the area has undergone a natural development. The land was never cultivated for agricultural or urban purposes as the rest of Zuidelijk Flevoland. A varied plantlife, showing all the signs of a pioneer vegetation, developed on the clayey former seabed, now wholly or partially free of water. The variegation of open water and covered higher ground attract all sorts of vegetation and thus also all sorts of birds and other animals. Most remarkable is the large number of breeding birds in spring and summer, and moulting and wintering birds in autumn and winter. The area is internationally acclaimed as "Wetland" and also as "Special Protected Area" (EC Bird Directive).

Special facilities for the public have been constructed in the eastern part of the area, for example bird observation huts, signposted walking trails, observation sites and a visitors' centre. In a few years, a Nature Activities Centre will be added to the facilities here.

On 1 January 1996, the Ministry of Transport, Public Works and Water Management (specifically, Public Works Department for the IJsselmeer area) permanently transferred its interim management responsibility for the Protected Area to Staatsbosbeheer, the National Forest Service of the Ministry of Agriculture, Nature Management and Fisheries.

## 2. Characteristics and values, justifying conservation: culture, ecology and recreation

The nature reserve "De Oostvaardersplassen" is situated in the polder Zuidelijk Flevoland, on the now reclaimed clayey seabed of what was once the Zuiderzee. In its short existence, the area has evolved into one of the major marshland areas of northwestern Europe. In ecological terms, the area is particularly valued for the great number of birds that breed, moult and/or winter there. Around 260 species have been sighted there, including at least 30 species of breeding birds on the 'IUCN Red List'.

### a. Cultural heritage

In 1932, construction of the dyke separating the Zuiderzee from the North Sea, the Afsluitdijk, was completed. The Zuiderzee slowly became a freshwater lake, the IJsselmeer. The bed of the IJsselmeer was clayey. Phased land reclamation activities resulted in three new polders that together form the province of Flevoland. As soon as the water in the youngest polder, Zuidelijk Flevoland (43 000 ha), was pumped away in 1968, reed was sown by airplane in the entire area, including what is now known as 'De Oostvaardersplassen'. The extensive reed lands dominated the landscape the first years. However, a single stretch along the Oostvaardersdijk, being the lowest part of the new polder, remained more or less submerged. Considered too much trouble, the area was temporarily spared from further reclamation activities. When engineers set about digging ditches and canals for drainage in this part of the polder in 1972, the marshland had already evolved into an internationally acclaimed bird sanctuary.

By the end of 1974, the area was designated as a "temporary nature area", a status which provisionally saved it from further development. In 1975, an embankment was constructed around the marshland (3 600 ha) to confine the water in the area. An additional 1200 ha outside the embankment was added to the area as it had become clear that geese could not function well without dry grazing land nearby. In 1982, nature conservation organisations successfully lobbied the Minister of Transport, Public Works and Water Management to move the planned railway line Almere-Lelystad 1.5 kilometres to the east where it passed 'De Oostvaardersplassen'. This allowed for an expansion of the area outside the embankment by 800 ha; the nature area thus came to its current size of 5 600 ha. The new section of the railroad became its nickname 'trace of the bath-tub'.

### b. Natural heritage

Moulting geese intensively grazed the reed lands so that the area did not become overgrown by reeds, but rather evolved into an open marshland. Since 1984, the number of Greylag Goose (*Anser anser*) using the area in May and June has risen dramatically to more than 30,000. However, in the early

1980s, the combination of high water levels and the geese's voracious appetites led to a continued expansion of open water at the cost of pioneer vegetation, reeds and ponds. Many of the gradual transitions from marshland to water disappeared and the water itself became murkier as the quality of the beds deteriorated. The area thus became less appealing to many species of birds, including fish-eating birds such as herons (*Ardea spec.*) For these reasons, a phased water level management was introduced in 1987.

The area outside the embankment, or perimeter zone, was added to the natural site when it had already been reclaimed and cultivated to an important extent. Fields and reed lands are being converted to wet, open landscapes and to drier landscapes with more cover. This was achieved by hydrological measures, but also by some moving earth, sowing and grazing. Current management is aimed at developing a single coherent ecosystem in which natural processes may take their course with as little interference as possible.

#### c. Public interest

For years and years, the Oostvaardersdijk (in the north) and the Knardijk (in the east) are ideal places from which to quietly observe the birds and take up the landscape. Nevertheless, a large part of 'De Oostvaardersplassen' is closed to the public to avoid disturbing the birds as they rest, feed and breed. Several recreational facilities are provided, primarily along the perimeters of the area, to experience the site and to observe the birds. The Knardijk is a nature lover's paradise: in the breeding season, cormorants (*Phalacrocorax spec.*) continually pass overhead and sightings of migrating birds are commonplace in autumn. The Knardijk also provides access to a well-maintained one kilometre walking trail through a part of the marshland. The observation hut "Grauwe Gans" is located at the halfway point and two observation screens have been placed elsewhere along the trail.

Another bird-spotting site is the so-called "Kitsstrand" near 'De Oostvaardersplassen' management office on the Kitsweg (in the east). The observation hut has special wheelchair facilities.

A temporary visitors' centre located at Kitsweg in this office building was opened in 1996. The willow woodland nearby has been opened to the public. The observation hut "Zeearend" built at the edge of this woodland allows a good view of the perimeter zone where large herbivores, geese and raptors feed.

The Reserve's abundant wildlife attracts already more than 100 000 visitors a year. Staatsbosbeheer is improving and extending the already good facilities.

In the near future, a Nature Activities Centre will be built at Praamweg, in the east, just outside the Nature Reserve. The area around this Centre is to be a scale representation of the varied nature and landscape of 'De Oostvaardersplassen'. The strengthening of the Oostvaardersdijk is to be used to improve observation opportunities from the dyke. Cyclists will be given access to the western part of the perimeter zone. Observation points along this bicycle path will increase the area's recreational use.

### 3. European interest justifying the application

The Nature Reserve was notified as a 'Wetland of international importance' according to the so-called Ramsar Convention in January 1989. The area fulfils the requirements for qualification as a Special Protected Area (SPA) in accordance with the EC Bird Directive (May 1989) and may qualify for special status according to the EC Habitat Directive.

#### a. Vegetation

The marshland part of 'De Oostvaardersplassen' currently consists of open water for 34% (1 200 ha) and of closed reed vegetation (*Phragmites spec.*) for 54% (1 900 ha). Willow woodlands and scrub, which includes plants such as Great willow herb (*Epilobium hirsutum*), Stinging nettle (*Urtica dioica*), Bindweed (*Calystegia sepium*) and Gipsy wort - make up the rest of the marshland zone.

The muddy water prevents the growth of water plants, both floating and submerged plants. Sight is so poor in the open water that it offers few possibilities for birds and fish. Furthermore, minimal geographic relief means that ponds are never more than one metre deep.

In the reed lands of the marshland zone, a distinction can be made between reed lands that are grazed by moulting geese in spring and fields where next to no grazing by geese occurs. The geese not only prevent 'De Oostvaardersplassen' from becoming overgrown by reeds, they can actually cause the reed vegetation to retreat. Reed vegetation is very monotonous. Local pockets of Bindweed, Marsh fleawort (*Senecio palustris*) and/or Woody nightshade (*Solanum dulcamara*) only occur in the more

open places. Cover in the old reed lands is extremely dense and in some places the reeds reach heights up to four metres. Sections of reed lands regularly deteriorate due to a massive invasion of the reed-boring pest *Archanara geminipuncta*.

Currently, pioneer vegetation, such as Marsh fleawort, Red goosefoot (*Chenopodium rubrum*), Sorrel (*Rumex*), Blister plant (*Ranunculus sceleratus*) and Great bulrush (*Typha latifolia*), occurs only in patches spread throughout the area. This is due to the limited places suitable for the development of pioneer vegetation (bare silt).

Willow woodlands are common in 'De Oostvaardersplassen'. The two largest woodlands are the dry woods near the management offices and the wet woods in the eastern part of the marshland zone. The latter location is also known as the 'Cormorant Wood', since about 5 000 pairs breed here each year. White willow (*Salix alba*) and Almond willow (*Salix triandra*) are the two main species in both woodlands.

Grasslands, reedlands and scrub occur alternately in the perimeter zone of 'De Oostvaardersplassen'. Although the grassland vegetation varies, the dominant vegetation is Perennial rye-grass (*Lolium perenne*), Meadow cat's tail (*Phleum praense*), Orchard grass (*Dactylis glomerata*), Rough meadow grass (*Poa trivialis*), Fiorin (*Agrostis stolonifera*) and Marsh foxtail (*Alopecurus geniculatus*). The dry reed lands have of a fairly monotonous cover of Reed (*Phragmites australis*). In other places, a small mosaic of reed land and scrub has developed, in which Stinging nettle (*Urtica dioica*), Creeping thistle (*Cirsium arvense*) and Hemp agrimony (*Eupatorium cannabinum*) occur. Common elder (*Sambucus nigra*) grows well in this scrub, slowly increasing in density. In all parts with this scrub vegetation, Elder bushes (*Sambucus spec.*) have practically the same age of about ten years.

#### b. Ornithological features

The great variety of birdlife in 'De Oostvaardersplassen' often leads to comparisons with famous marshland areas such as the Camargue (Rhône Delta, France) and the Cota Donana (at the mouth of the Guadalquivir, Spain). Some 260 bird species - breeding birds as well as migrating and/or wintering birds - have been sighted in the area. Marshland birds dominate the scene in the breeding season. Major species are Cormorant (*Phalacrocorax carbo*), Bittern (*Botaurus stellaris*), Spoonbill (*Platalea leucorodia*), Greylag Goose (*Anser anser*), Marsh Harrier (*Circus aeruginosus*), Bluethroat (*Luscinia svecica*) and Bearded Tit (*Panurus biarmicus*) (more than 1 000 breeding pairs). The first breeding pair of Great White Heron (*Egretta alba*) in northwestern Europe was sighted in 'De Oostvaardersplassen' in 1979 and was much celebrated. Other successful breeding pairs were not seen again until the 1990s. Year-round, 'De Oostvaardersplassen' fulfils an important role for migrating birds. From late April until early June, thousands of (non-breeding) Greylag Goose (*Anser anser*) from Germany and Sweden flock to the area to moult.

Large numbers of geese (*Anser spec.*) also visit the area in winter, especially for resting and sleeping. The arable land in other parts of Flevoland serve as winter feeding grounds. When low water levels lay bare extensive shallows and fields of silt in spring and late summer, the number of waders increases, particularly Avocet (*Recurvirostra avosetta*), Black-tailed Godwit (*Limosa limosa*) and Ruff (*Philomachus pugnax*). In autumn, large concentrations of swimming ducks gather in the area, but their numbers are determined to a large extent by the available food supply. Until the 1980s, Black Terns (*Chlidonias niger*) which foraged on the Markermeer and IJsselmeer by day used 'De Oostvaardersplassen' to bed down at night. Black terns (*Chlidonias niger*) would make up 50 to 80% of the total bird population there (for example, 35 000 in August 1981). The winter is a relatively quiet time, aside from geese (*Anser spec.*) who sleep in the area, but in stormy weather the ponds are a sanctuary for large numbers of diving ducks and and Goosanders (*Mergus merganser*) which forage on the Markermeer and IJsselmeer. The only species which occurs in the area year-round is the Bearded Tit (*Panurus biarmicus*), a reed bird that lives on insects in summer and reed seed in winter.

'De Oostvaardersplassen's qualifications as an SPA area (in accordance with the EU Bird Directive) and as a Wetland are based on the occurrence of certain species of breeding birds and non-breeding birds. The qualifying species of breeding birds occurring in 'De Oostvaardersplassen' are: Cormorant, Bit Tern, Spoonbill, Marsh Harrier, Hen Harrier, Avocet and Bluethroat. The qualifying species of non-breeding birds are: Cormorant, Spoonbill, Whooper Swan, White-fronted Goose, Greylag Goose, Barnacle Goose, Wigeon, Gadwall, Teal, Pintail, Shoveler, Tufted Duck, White-tailed Eagle, Avocet, Ruff, Black-tailed Godwit, Caspian Tern and Black Tern.

The birdspecies of the 'IUCN Red List', breeding in 'De Oostvaardersplassen' are recorded in Appendix 2; there are 30 species.

#### 4. Description of geographical location and sketch on a map

'De Oostvaardersplassen' is located in the northwestern part of Zuidelijk Flevoland (the southernmost polder of the province of Flevoland), in the centre of the Netherlands. It lies along the dyke 'Oostvaardersdijk' just southwest of the town of Lelystad. The geographical location is 52°28' north latitude and 5°20' east longitude.

The area is 5 600 ha. This can be subdivided into 3 600 ha reed marshland and 2 000 ha dry scrubland. Two maps of the area's situation are included in Appendix 3: a. the location of 'De Oostvaardersplassen' situated within the National Ecological Network of the Netherlands, and b. the more detailed topography of 'De Oostvaardersplassen'.

#### 5. Photographs illustrating aspects of the natural site

Ten photographs are printed in Appendix no 5. They provide a general impression of various aspects of the ecological value found in 'De Oostvaardersplassen': flora, fauna, birds, landscape and human activities:

1. Aerial view of a small portion of the 3 600 ha marshland
2. Aerial view of a small portion of the 2 000 ha border zone
3. In summer the shallow waters and mudflats attract thousands of waders
4. Up to 40 000 Black-tailed Gotwits (*Limosa limosa*) in August and September
5. 'De Oostvaardersplassen' inhabits one of the largest colonies of the Spoonbill (*Platalea leucordia*) in Western Europe
6. 'De Oostvaardersplassen' inhabits one of the largest colonies of the Cormorant (*Phalacrocorax carbo*) in Western Europe
7. Year round grazing is very important to keep an open, short grassed landscape in order to favour gees, ducks, waders, harriers etc.
8. Besides Heck cattle and Red deer, Konik horses (closely related to the Tarpan) are introduced as a grazing-tool
9. The Gray-leg gees (*Anser anser*) moults in the marshland in numbers up to 60 000. Their grazing maintains the most important half-open marsh landscape.
10. The reserve's abundant wildlife attracts already more than 100 000 visitors a year. Staatsbosbeheer is improving and extending the already good facilities for the public.

#### 6. Conservation measures

Because the area's ecological value is of international importance, the Nature Reserve is government-managed and owned. Since 1 January 1996, management is carried out by 'Staatsbosbeheer', (National Forest Service) the national agency for nature management of the Minister of Agriculture, Nature Management and Fisheries.

A Scientific Advisory Council has been instituted; an advisory body with representatives of a wide scope of sciences and interests.

Current management policy is aimed at the conservation and further development of a single coherent ecosystem in which natural processes may take their course with as little interference as possible.

The recommendation for the development and management of the Site for the next decade has been laid down in the report "*De Oostvaardersplassen natuurlijker. Advies over de verdere ontwikkeling en het beheer van het natuurgebied De Oostvaardersplassen*". This recommendation was formulated in 1995 by the former 'Oostvaardersplassen Management Commission', a common advisory body of the Minister of Transport, Public works and Water Management and the Minister of Agriculture, Nature Management and Fisheries.

The Minister of Agriculture, Nature Management and Fisheries has agreed to the proposed vision and management method; although a few amendements were made. Management tasks will be carried out by Staatsbosbeheer.

The management of 'De Oostvaardersplassen' will be aimed at realising a single coherent ecosystem in which natural processes may take their course with as little interference as possible. Concerning the watermanagement is decided to choose for a precipitation-môdel with additional drainage facilities. Large herbivores, like Heck cattle, Konik horses and Red deer, will all play a crucial role in the system. They are the 'tools' to keep the perimeter zone sufficiently open for wintering geese, ducks and waders. The Reserve may have extremely low water levels in the summer months, increasing its susceptibility to botulism outbreaks. To limit the mortality of (vulnerable) waterbirds, the water used by cormorant colony may be effectively isolated from the water course in the rest of the Reserve. Victims of the outbreak can be collected to prevent further spreading of the infection. Hunting is not allowed in 'De Oostvaardersplassen'.

The yearly budget is  $\pm$  NLG 1.850.000,- ( $\pm$  900.000,- ECU). This budget covers the management costs (inclusive polder-taxes) and the direct to the management related costs for personel (rangers, wardens, fieldworkers etc). Not included are the costs for overhead.

## 7. Relevant legislation (at national, regional, local and management level)

The area of the Nature Reserve is protected on all different levels.

### a. National level

'De Oostvaardersplassen' is part of the National Ecological Network, as established in the 'Natuurbeleidsplan' (the Nature Policy Plan) [1990]. The area is identified as a core area in the Network.

In October 1986, 'De Oostvaardersplassen' received the status of National Nature Monument, which provided a legal basis for the continued existence of the area.

### b. Regional level

In its regional plan [Streekplan, 1993], the Province of Flevoland listed 'De Oostvaardersplassen' as a "nature area/nature reserve" (main use of the area is a nature use). Policy is aimed at conserving and developing the diversity of nature values. Provisions pertaining to this status are included in Appendix 4. The regional plan also states the Province's intention to boost the relationship between 'De Oostvaardersplassen' and neighbouring Markermeer (north) and to reinforce the ecological link to the Lepelaarsplassen to the southwest.

### c. Local level

The 1987 zoning plan of the Town of Lelystad [Bestemmingsplan, 1987] describes 'De Oostvaardersplassen' as a "nature area". Next to the main use as a "nature area", the area is also marked for secondary use, specifically "extensive recreational use". This includes facilities such as walking and cycling paths and a management building, observation huts and water management constructions. Relevant provisions are provided in Appendix 4.

### d. Management level

Staatsbosbeheer is responsible for carrying out the management tasks identified in the 'Oostvaardersplassen Management Plan 1997-2006'. As mentioned before, this Plan was laid down by the 'Oostvaardersplassen Management Commission' and approved by the Ministry of Agriculture, Nature Management and Fisheries in 1996.

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*Marshland zone*

Two vegetation development cycles occurred in the marshland zone of 'De Oostvaardersplassen'. The first cycle started with the draining of the polder Zuidelijk Flevoland; water levels in 'De Oostvaardersplassen' gradually dropped as the immediate surroundings were drained. The construction of a dyke around the area prevented the draining of the ponds and the area again entered a wetland phase. The second cycle occurred only in the western part of the area. Between 1987 and 1990 water was pumped out here with the aim of restoring the helophytic vegetation. The result of this water level regulation was a varied pioneer vegetation followed by a full recovery of the reed land (from 5000 to 1100 hectare). Because the grazing of the Greylag geese (*Anser anser*) was less intensive than expected, Reed (*Phragmites australis*) could become very dominant. With an earlier re-introduction a more helophytic vegetation would probably have arisen.

These experiences clearly showed that the species composition of the pioneer vegetation after draining depends on the moment of draining and the seedbed present in the soil, as well as on the weather conditions during the first weeks after draining. The consequence for management is that the species composition of the pioneer vegetation cannot be determined exactly beforehand. However, choosing the moment of draining while keeping in mind the drain-goal, the composition can be directed to some extent.

*Perimeter zone*

Management practices in the perimeter zone of 'De Oostvaardersplassen' have resulted in a varied landscape. This zone changed from a mixture of monotonous reed lands and agricultural fields to a varied grassy scrubland. Until now, the role of large grazing mammals (cattle and horses) can be considered very positive, since these animals contribute to a large structural diversity. The autonomous succession of *Phragmites australis* - *Cirsium arvense* vegetation into *Urtica dioica* - *Poa trivialis* vegetation seemed to occur more rapidly under influence of grazing by large herbivores. With a year-round grazing regime this development takes fifteen years while with intensive seasonal grazing the vegetation changes to a *Urtica dioica* - *Poa trivialis* vegetation within five years. Because of the dominance of *Poa trivialis*, this grassy vegetation is relatively vulnerable to frost and drought.

In only a few years, seeded highly productive grass species like *Lolium perenne* and *Phleum pratense* are replaced almost completely by *Poa trivialis* and to a lesser extent by *Phragmites australis* and rough growth species. With greater grazing pressure, these species survive better and *Phragmites australis* and rough growth species do not get a chance to increase. When seeding a mixture of more rough grass species like *Dactylis glomerata*, *Poa trivialis* hardly increases. Under wet circumstances, grasslands soon consist only of *Agrostis stolonifera* and *Alopecurus geniculatus*. Those species are better able to withstand inundation for many months. In very dry or very wet years, ruderal and pioneer species increase.

Presently the reed lands in 'De Oostvaardersplassen' are turning into bushlands consisting of *Sambucus nigra*. This scrub species is on the rise nearly everywhere in the perimeter zone, but especially where grazing occurs or has recently occurred.

Grazing by cattle creates circumstances in which small-scale shallow waters can be kept open. With a management of 'natural' water levels (high water levels in winter and low water levels in summer) large herbivores are able to prevent such small open waters from growing thick with *Phragmites australis*.

Some of the rarer plant species found in 'De Oostvaardersplassen' since 1995 are:

*Geranium pratense*

*Gnaphalium luteo-album*

*Picris echioides*

*Anthriscus caucalis*

*Centaurium pulchellum*

*Alchemilla mollis*

*Chenopodium foliosum*

*Limosella aquatica*

*Crepis tectorum*

*Corispermum leptopterum*

*Verbascum densiflorum*

*Hordeum jubatum*

*Linum catharticum*  
*Lamium maculatum*  
*Cotula coronopifolia*  
*Astragalus glycyphyllos*  
*Potentilla supina*  
*Verbascum lychnitis*

*Alopecurus aequalis*  
*Phleum arenarium*  
*Rosa pimpinellifolia*  
*Prunus cerasifera*  
*Equisetum telmateia*

Appendix 1.b

**Vegetation map of  
'De Oostvaardersplassen'**

Situation 1992 [Jans en Drost, 1995]

scale  $\pm$  1 : 750.000 (1 cm=0,75 km)

Reed mace ( <i>Typha sp.</i> )	Coarse grasses
Pioneer vegetation	Dry rough growth
Wet rough growth	Grassland
Ungrazed reed ( <i>Phragmites australis</i> )	Grassy rough growth
Grazed reed ( <i>Phragmites australis</i> )	Elder bush ( <i>sambucus nigra</i> )
Willow bush ( <i>Salix sp.</i> )	Open water

Pioniersvegetatie	Droge ruigte
Lisdodde	Grove grassen
Natte ruigte	Grasland
Onbegaasd riet	Grazige ruigte
Begaasd riet	Vlierstruweel
Wilgenbos	Open water



Appendix 2

**Bird species of the 'Red List',  
breeding in 'De Oostvaardersplassen'**

Little Grebe	<i>Tachybaptus ruficollis</i>
Bittern	<i>Botaurus stellaris</i>
Little Bit Tern	<i>Ixobrychus minutus</i>
Night Heron	<i>Nycticorax nycticorax</i>
Purple Heron	<i>Ardea purpurea</i>
Spoonbill	<i>Platalea leucorodia</i>
Garganey	<i>Anas querquedula</i>
Hen Harrier	<i>Circus cyaneus</i>
Montagu's Harrier	<i>Circus pygargus</i>
Spotted Crake	<i>Porzana porzana</i>
Corncrake	<i>Crex crex</i>
Avocet	<i>Recurvirostra avosetta</i>
Ringed Plover	<i>Charadrius hiaticula</i>
Kentish Plover	<i>Charadrius alexandrinus</i>
Snipe	<i>Gallinago gallinago</i>
Black-tailed Godwit	<i>Limosa limosa</i>
Redshank	<i>Tringa totanus</i>
Barn owl	<i>Tyto alba</i>
Short-eared Owl	<i>Asio flammeus</i>
Kingfisher	<i>Alcedo atthis</i>
Sand Martin	<i>Riparia riparia</i>
Bluethroat	<i>Luscinia svecia</i>
Whinchat	<i>Saxicola rubetra</i>
Stonechat	<i>Saxicola torquata</i>
Savi's Warbler	<i>Locustella luscinioides</i>
Sedge Warbler	<i>Acrocephalus schoenobaenus</i>
Great Reed Warbler	<i>Acrocephalus arundinaceus</i>
Bearded Tit	<i>Panurus biarmicus</i>
Red-backed Shrike	<i>Lanius collurio</i>
Raven	<i>Corvus corax</i>

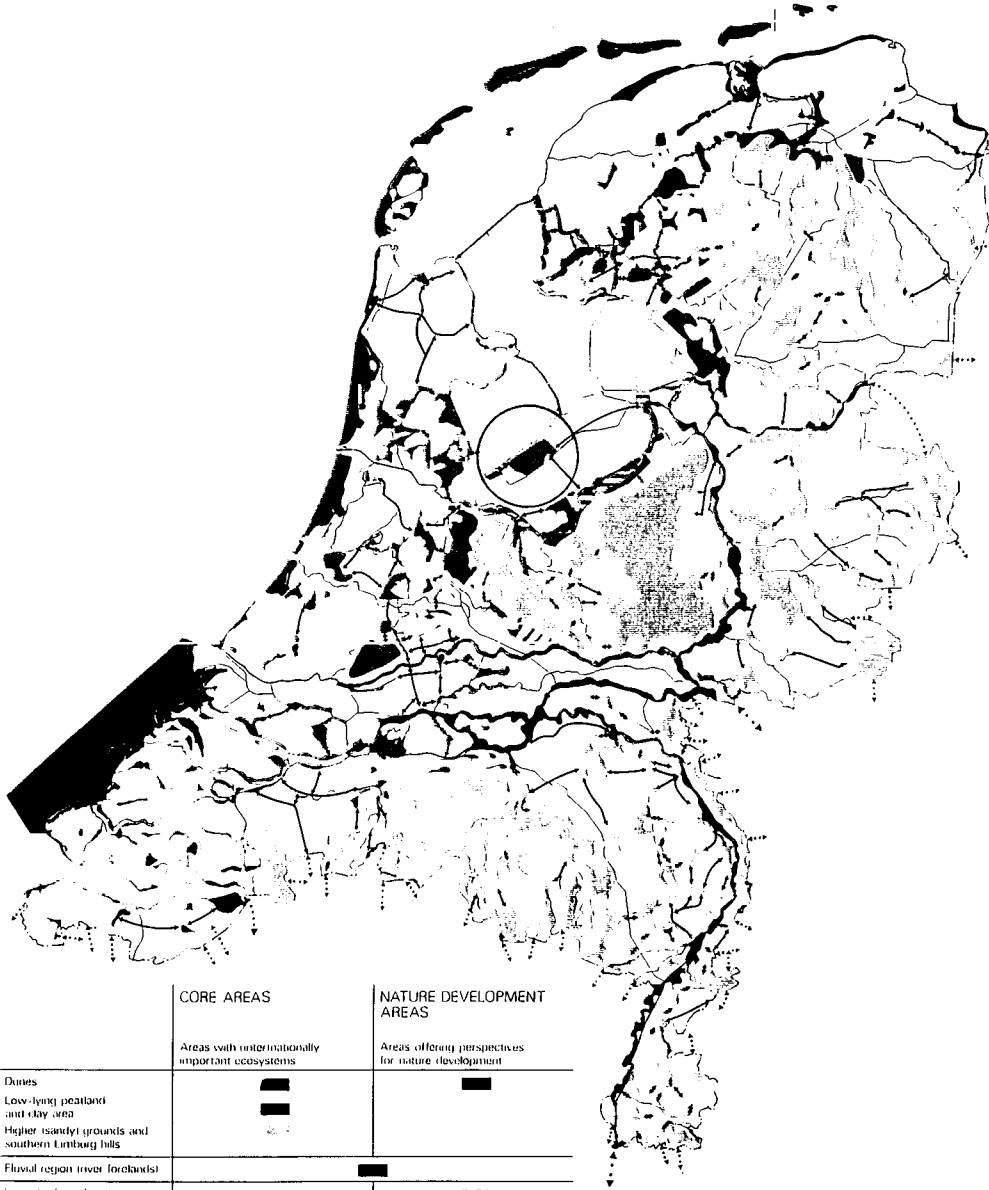
Appendix 3.a

Situation of 'De Oostvaardersplassen'  
in the centre of the Netherlands

scale  $\pm$  1 : 2.000.000 (1 cm = 20 km)

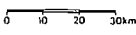
National Ecological Network of the Netherlands

A coherent network of sustainable ecosystems that are of (inter)national importance



	CORE AREAS Areas with internationally important ecosystems	NATURE DEVELOPMENT AREAS Areas offering perspectives for nature development
Dunes	■	■
Low-lying peatland and clay area	■	
Higher sandy grounds and southern Limburg hills	■	
Fluvial region river forelands		■
Large bodies of water - mudflats	■	■

ECOLOGICAL CORRIDORS



Dutch Ministry of Agriculture  
Nature Management and Fisheries  
Source Directorate for Nature Conservation  
Environmental Protection and Wildlife Department  
Cartography Government Service for Land and  
Water Use Utrecht 1990

Appendix 3.b

Topography of 'De Oostvaardersplassen'  
situation 1996

scale  $\pm 1 : 750.000$  (1 cm=0,75 km)



**Relevant provisions in the Regional Plan  
and in the Zoning Plan**

**a. “Regional Plan” by the Province of Flevoland (Streekplan, 1993)**

Relevant provisions for the category “Area with a mainly nature use”

general

- policy is aimed at conserving and developing the diversity of nature values
- pursuant to the national government’s Nature Policy Plan, the aim is to create an ecological infrastructure with core areas linked by networks
- conserving and developing the marshland and water environment, particularly those areas close to large bodies of water, is of the highest priority
- conditions for sustainability are created with the realisation of ecological networks

specific

- ‘De Oostvaardersplassen’ is recognised as a “core area”
- efforts should be made to strengthen the relationship between ‘De Oostvaardersplassen’ and Markermeer (to the northwest)
- special attention should be given to the area around Knardijk, which connects ‘De Oostvaardersplassen’ to the forest area “Hollandse Hout (to the northeast). Special attention should also be given to the connection between ‘De Oostvaardersplassen’ and Lepelaarsplassen (to the southwest)

**b. “Zoning plan for ‘De Oostvaardersplassen’ and surroundings” by the Town of Lelystad (Bestemmingsplan, 1987)**

Relevant provision for areas marked as “nature area”

- the main use of the area is “nature”
- the secondary use of the area is “extensive recreational use”. This will be realised, in part, by providing cycling and walking paths, including the Flevo hiking trail.
- limited construction is allowed, specifically the construction of a management building, observation huts, a pumping station, windmills to improve water management and other buildings.

NOTE: Further regulations pertaining to the size of buildings (height and area) are laid down in 21 separate articles.

Appendix 5

**Photographs illustrating aspects of the natural site**

Ten photographs are printed to provide a general impression of various aspects of the ecological value found in 'De Oostvaardersplassen': flora, fauna, birds, landscape and human activities.

1. Aerial view of a small portion of the 3 600 ha marshland
2. Aerial view of a small portion of the 2 000 ha border zone
3. In summer the shallow waters and mudflats attract thousands of waders
4. Up to 40 000 Black-tailed Gotwits (*Limosa limosa*) in August and September
5. 'De Oostvaardersplassen' inhabits one of the largest colonies of the Spoonbill (*Platalea leucordia*) in Western Europe
6. 'De Oostvaardersplassen' inhabits one of the largest colonies of the Cormorant (*Phalacrocorax carbo*) in Western Europe
7. Year round grazing is very important to keep an open, short grassed landscape in order to favour gees, ducks, waders, harriers etc.
8. Besides Heck cattle and Red deer, Konik horses (closely related to the Tarpan) are introduced as a grazing-tool
9. The Gray-leg goos (*Anser anser*) moults in the marshland in numbers up to 60 000. Their grazing maintains the most important half-open marsh landscape.
10. The reserve's abundant wildlife attracts already more than 100 000 visitors a year. Staatsbosbeheer is improving and extending the already good facilities for the public.





photo 1: Aerial view of a small portion of the 3600 ha marshland

photographed by V.L. Wigbels  
©BIOFAAN



photo 2: Aerial view of a small portion of the 2000 ha border zone

photographed by V.L. Wigbels  
©BIOFAAN

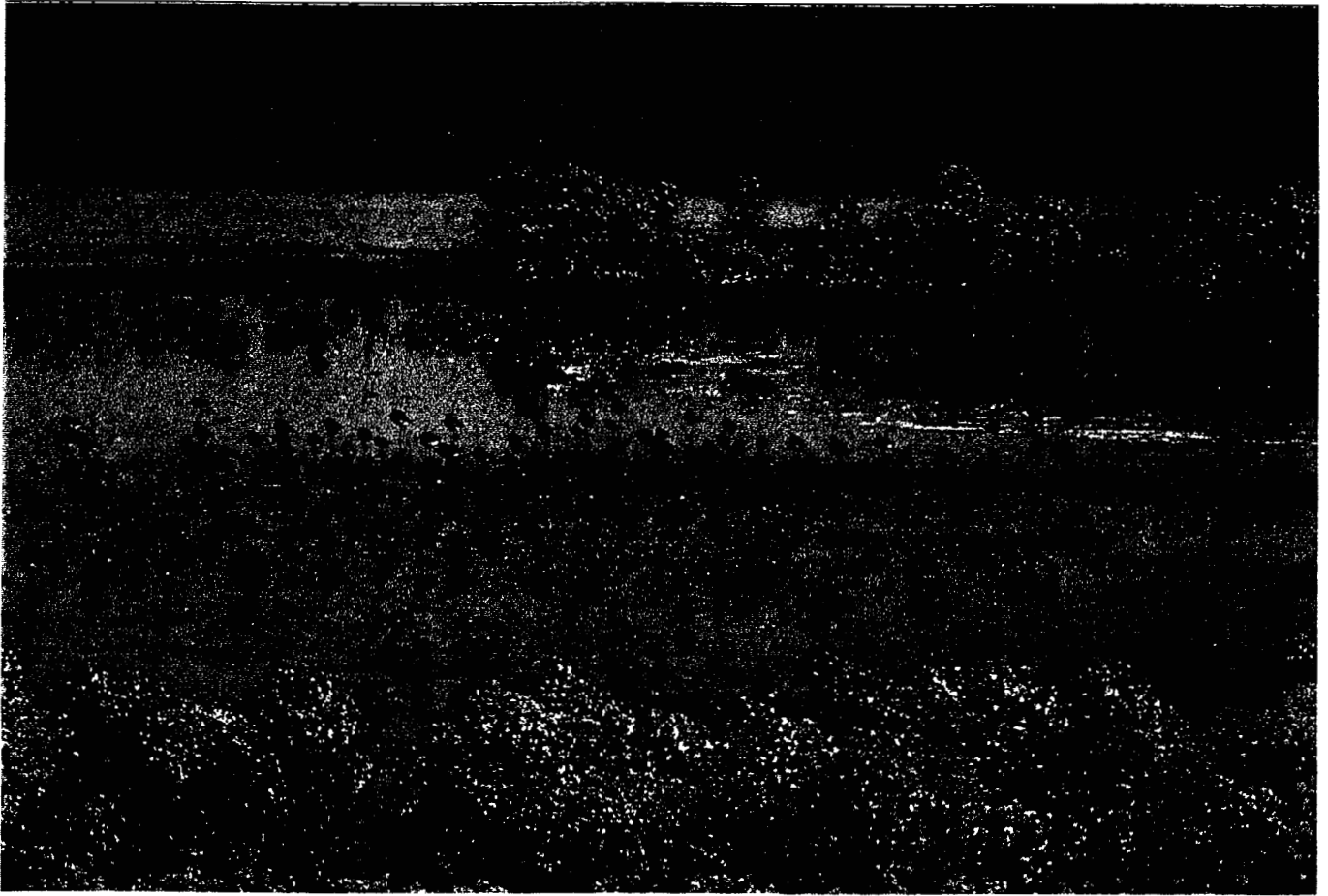


photo 3: In summer the shallow waters and mudflats attract thousands of waders

photographed by V.L. Wigbels  
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photo 4: Up to 40.000 Black-tailed Godwit's (*Limosa limosa*) in August and September

photographed by V.L. Wigbels  
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photo 5: The Oostvaardersplassen inhabits one of the largest colonies of the Spoonbill (*Platalea leucordia*) in Western Europe

photographed by V.L. Wigbels

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photo 6: The Oostvaardersplassen inhabits one of the largest colonies of the Cormorant (*Phalacrocorax carbo*) in Western Europe

photographed by V.L. Wigbels

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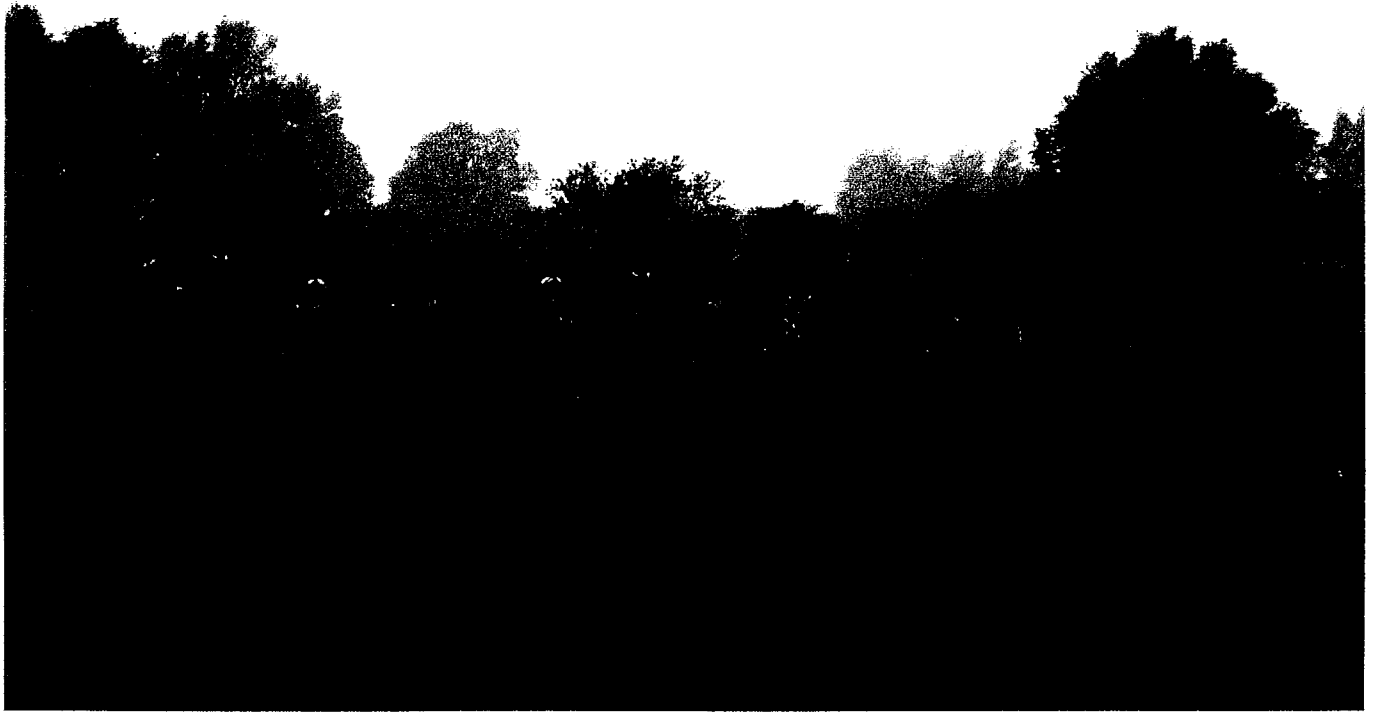


photo 7: Year-round grazing is very important to keep an open, short grassed landscape in order to favour gees, ducks, waders, harriers and so on.

photographed by V.L. Wigbels  
©BIOFAAN



photo 8: Besides Heck cattle and Red deer, Konik horses (closely related to the Tarpan) are introduced

photographed by V.L. Wigbels  
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photo 9: The Grey-lag goose (*Anser anser*) moults in the marshland in numbers up to 60.000. Their grazing maintains the most important half-open marsh landscape.

photographed by V.L. Wigbels  
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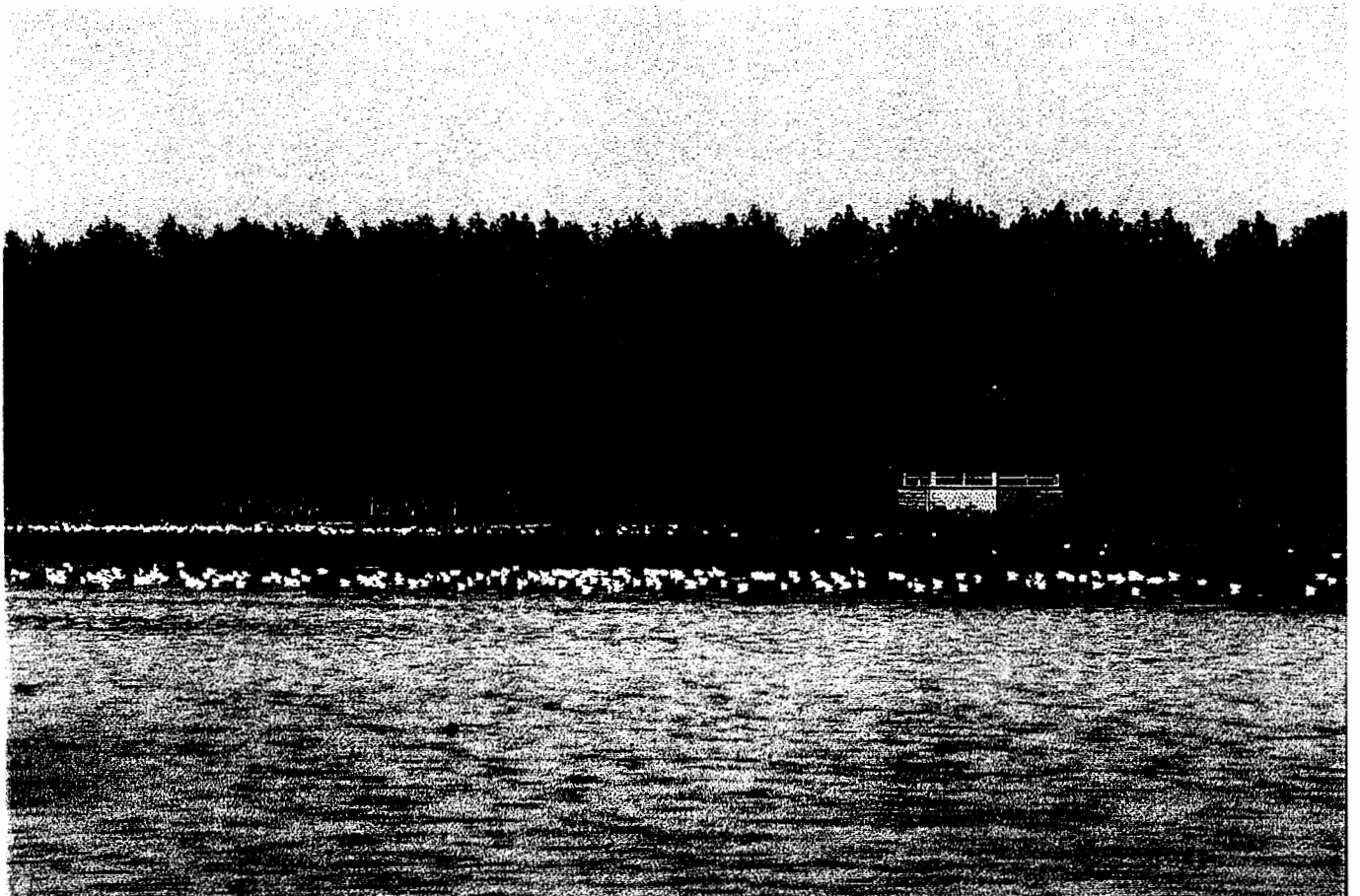


photo 10: The reserve's abundant wildlife attracts already more than 100.000 visitors a year. Staatsbosbeheer is improving and extending the-already good facilities.

photographed by V.L. Wigbels  
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