

Ramsar Information Sheet

Published on 1 November 2022 Update version, previously published on : 15 December 2014

Netherlands Alde Feanen



Designation date 30 December 1992 Site number 578

Coordinates 53°07'28"N 05°55'31"E

Area 2 124,00 ha

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

The Ramsar site Alde Feanen (2124 ha) is one of the few remnants of an extensive peat bog landscape. In the second half of the 17th century the excavation of peat started. This resulted in both a small scale landscape with alternating channels and land where the peat was laid to dry ("petgaten" and "legakkers") and larger lakes. Around 1900 the peat digging ended. The people impoldered and drained the small scale landscape and started cattle breeding. The present landscape is the result of this drainage. It is characterised by marsh vegetations, surrounded by "zomerpolders" (polders which only can be used in summer, because of the water level in winter) and "boezemlanden" (polder areas with natural drainage) crossed by many water courses. The site consists of open water, reed lands, peat bogs, wooded marshland and grasslands on remains of peat. The peat holes, which are often hidden between reeds and swamp forests, often have floating vegetations. In other places this process has progressed somewhat further into quaking bogs or blue grasslands. After the reed mowing management, an alder swamp forest developed in most peat bogs. The area was expanded by 48 hectares in 2007 as part of a LIFE project for the Root Vole, among others. The site is particularly important for the conservation of several peat habitat types and several species of fish, as well as resting and breeding bird species.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency | Wageningen Environmental Research PO Box 47 Postal address 6700 AA Wageningen The Netherlands

National Ramsar Administrative Authority

Institution/agency | Ministry of Agriculture Nature and Food Quality

Bezuidenhoutseweg 73 P.O. Box 20401 2500 EK The Hague Postal address The Netherlands

2.1.2 - Period of collection of data and information used to compile the RIS

From year 2015 To year 2020

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Alde Feanen Spanish)

2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

(Update) A. Changes to Site boundary Yes O No O (Update) B. Changes to Site area No change to area $^{ ext{(Update)}}$ For secretariat only: This update is an extension \square

2.1.5 - Changes to the ecological character of the Site

 $^{\text{(Update)}}\,6\text{b}$ i. Has the ecological character of the Ramsar Site (including $\,$ No applicable Criteria) changed since the previous RIS?

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image <1 file(s) uploaded>

Former maps 0

Boundaries description

The boundary of the Ramsar site is equal to the Natura 2000-site with the same name.

The boundaries of the Ramsar Site were delineated more accurately and aligned to the boundaries of the Natura 2000 site in 2013 reducing the area by 376 ha

2.2.2 - General location

a) In which large administrative region does the site lie? | Friesland

b) What is the nearest town or population Drachten in the municipality Smallingerland with a population of 56.040 in 2021 (Source: CBS, centre? Netherlands Statistics)

2.2.3 - For wetlands on national boundaries only

- a) Does the wetland extend onto the territory of one or more other countries? Yes O No \odot
- b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes O No lacktriangle

2.2.4 - Area of the Site

Official area, in hectares (ha): 2124

Area, in hectares (ha) as calculated from GIS boundaries

2124.03

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
EU biogeographic regionalization	Atlantic

Other biogeographic regionalisation scheme

The bio-geographic regions dataset used, contains the official delineations used in the Habitats Directive (92/43/EEC) and for the EMERALD Network set up under the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention).

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

Criterion 1: Representative, rare or unique natural or near-natural wetland types

Other reasons

The Netherlands was once covered with thousands of hectares of peat soil. For hundreds of years these peatlands were excavated because peat was the main fuel source. Although excavations have been halted, much of the remaining peatlands are being degraded due to drainage to make them suitable as pastureland for cows.

The Alde Feanen is a remnant of a once vast peat bog area. The area is not only important for carbon sequestration, but also provides habitat for rare flora and fauna.

☑ Criterion 2 : Rare species and threatened ecological communities

☑ Criterion 3 : Biological diversity

The Alde Feanen is designated as a Natura 2000 site (both SAC and SPA) and can therefore be considered important for maintaining the biodiversity of the Atlantic biogeographic region. Besides the species mentioned under criterion 2, the site has also been designated as a SAC for a range of habitat types (Annex I of HD, see section 3.4) and SPA for a number of bird species that are not Justification on Annex I of the BD.

Criterion 4 : Support during critical life cycle stage or in adverse conditions

Optional text box to provide further

The Ramsar site is also part of the Natura 2000 network in the European Union. It is designated as a Special Protection Area (SPA) for the functions that it provides to specific breeding and non-breeding bird species (e.g. migratory, hibernating, sleeping, resting, foraging). The site is also designated as a Special Area of Conservation (SAC) for specific non-bird species (and habitat types, see section 3.4). See also Natura2000 - For detailed information please see Natura 2000 data sheet: https://www.natura2000.nl/gebieden/friesland/alde-feanen

https://natura2000.eea.europ a.eu/Natura2000/SDF.aspx?site=NL3009001

☑ Criterion 5: >20,000 waterbirds

Overall waterbird numbers 40,073

Start year 2015

End year 2020

Source of data: Sovon, Dutch Centre for Field Ornithology

Optional text box to provide further | Start season 2015/2016. End season 2019/2020. Peak numbers for all five seasons > 20,000. Average information 40,073 individuals.

☑ Criterion 6 : >1% waterbird population

	The 1% waterbird population thresholds are based on the 7th Edition of the Conservation Status Repor
Optional text box to provide further	The 1% waterbird population thresholds are based of the 7th Edition of the Conservation Status Repor
information	(CSR7).

☑ Criterion 8 : Fish spawning grounds, etc.

The site is also designated as a Special Area of Conservation (SAC) for several fish species and is part of the Natura 2000 network within the European Union.

3.2 - Plant species whose presence relates to the international importance of the site

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Plantae								
TRACHEOPHYTA/ LILIOPSIDA	Hammarbya paludosa	V					National red list species	
TRACHEOPHYTA/ MAGNOLIOPSIDA	Pedicularis palustris	V			LC		National red list species	
Fungi								
BASIDIOMYCOTA / AGARICOMYCETES	Gyrodon lividus	/					National red list species	

3.3 - Animal species whose presence relates to the international importance of the site

3.3 - Anima	ıl species wi	าose pre	esenc	ce relate	es to	the internation	onal imp	oorta	nce of	the site		
Phylum	Scientific name	Species qualifies under criterion 2 4 6	, co	Species ontributes under criterion	Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
Others												
ARTHROPODA/ INSECTA	Leucorrhinia pectoralis							LC			National red list species	The site is also designated as a Special Area of Conservation (SAC) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / MAMMALIA	Microtus oeconomus							LC			National red list species, endemic to the Netherlands	The site is also designated as a Special Area of Conservation (SAC) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ MAMMALIA	Myotis dasycneme	2 20						NT			EU Habitats Directive Annex II	The site is also designated as a Special Area of Conservation (SAC) for this species and is part of the Natura 2000 network within the European Union.
Fish, Mollusc a	and Crustacea											
CHORDATA/ ACTINOPTERYGII	Cobitis taenia							LC			EU Habitats Directive Annex II	The site is also designated as a Special Area of Conservation (SAC) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ ACTINOPTERYGII	Cottus gobio	~~						LC			EU Habitats Directive Annex II	The site is also designated as a Special Area of Conservation (SAC) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ ACTINOPTERYGII	Misgurnus fossilis							LC			National red list species	The site is also designated as a Special Area of Conservation (SAC) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ ACTINOPTERYGII	Rhodeus amarus	~~						LC			National red list species	The site is also designated as a Special Area of Conservation (SAC) for this species and is part of the Natura 2000 network within the European Union.
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Phylum	Scientific name	qu u cri	ecies alifies nder terior	1	Spec contril und crite	butes ler	Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
Birds										<u> </u>				
CHORDATA/ AVES	Acrocephalus schoenobaenus				Z 🗆					LC				The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Anas acuta	2					152	2015/16-2019/20	0.3	LC			National red list species (as breeding bird).	Reference population: North-west Europe.
CHORDATA/ AVES	Anas clypeata	V 5					522	2015/16-2019/20	0.8	LC			National red list species (as breeding bird).	Reference population: North-west & Central Europe (win). The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Anas crecca	V 5					956	2015/16-2019/20	0.2	LC			National red list species (as breeding bird).	Reference population: crecca, North-west Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Anas penelope	✓.					8609	2015/16-2019/20	0.6				National red list species (as breeding bird).	Reference population: Western Siberia & NE Europe/NW Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Anas strepera						839	2015/16-2019/20	0.7	LC				Reference population: strepera, North-west Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Anser albifrons						10471	2015/16-2019/20	0.9	LC				Reference population: albifrons, NW Siberia & NE Europe/North-west Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Anser anser						669	2015/16-2019/20	0.1	LC				Reference population: anser, NW Europe/South-west Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / AVES	Ardea alba						68	2015/16-2019/20	0.1	LC				Reference population: alba, W, C & SE Europe/Black Sea & Mediterranean.
CHORDATA/ AVES	Ardea purpurea	S					0	2015/16-2019/20	0	LC			National red list species (as breeding bird).	Reference population: purpurea, West Europe & West Mediterranean/West Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Aythya ferina	✓.					38	2015/16-2019/20	0	VU				Reference population: North-east Europe/North-west Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Aythya fuligula		20		77		424	2015/16-2019/20	0	LC				Reference population: North-west Europe (win). The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.

Phylum	Scientific name	Specie qualifie under criterio 2 4 6	s o	Species contributes under criterion	Pop. Size	Period of pop. Est.	% occurrence 1)	IUCN Red List	CITES Appendix	CMS Appendix I	Other Status	Justification
CHORDATA / AVES	Botaurus stellaris	~~			42	2015/16-2019/20	0.5	LC			National red list species (as breeding bird).	Reference population: stellaris, W Europe, NW Africa (bre). The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Branta leucopsis			9900	23174	2015/16-2019/20	1.9	LC				Reference population: Russia/Germany & Netherlands. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union. Pop: RUSSIA/GERMANY & NETHERLANDS
CHORDATA/ AVES	Chlidonias niger			7200	0	2015/16-2019/20	0	LC				Reference population: niger, Europe & Western Asia/Atlantic coast of Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA / AVES	Circus aeruginosus							LC				The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Cygnus olor				107	2015/16-2019/20	0.1	LC				Reference population: North-west Mainland & Central Europe.
CHORDATA/ AVES	Limosa limosa	2 2 2			4861	2015/16-2019/20	6.2	NT			National red list species (as breeding bird).	Reference population: limosa, Western Europe/NW & West Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union. Pop: LIMOSA
CHORDATA / AVES	Locustella luscinioides	990						LC			National red list species (as breeding bird).	The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Mergellus albellus			7200	112	2015/16-2019/20	0.4	LC				Reference population: North-west & Central Europe (win). The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Phalacrocorax carbo			7200	915	2015/16-2019/20	0.1	LC				Reference population: sinensis, Northern & Central Europe. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Philomachus pugnax			7200	332	2015/16-2019/20	0	LC			National red list species (as breeding bird).	Reference population: Northern Europe & Western Siberia/West Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.
CHORDATA/ AVES	Porzana porzana			7200	2	2015/16-2019/20	0	LC			National red list species (as breeding bird).	Reference population: Europe/Africa. The site is also designated as a Special Protection Area (SPA) for this species and is part of the Natura 2000 network within the European Union.

1) Percentage of the	total biogeographic	population at the site
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Bird data are provided by SOVON, Dutch Centre for Field Ornithology.
The 1% waterbird population thresholds are based on the 7th Edition of the Conservation Status Report (CSR7).

3.4 - Ecological communities whose presence relates to the international importance of the site

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Natural eutrophic lakes with magnopotamion or Hydrocharition-type vegetation	Ø		The site is also designated as a Special Area of Conservation (SAC) for this habitat type and is part of the Natura 2000 network within the European Union.
Molinia meadows on calcareous, peaty or clayey-silt laden soils (Molinion caeruleae)	2		The site is also designated as a Special Area of Conservation (SAC) for this habitat type and is part of the Natura 2000 network within the European Union.
Calcareous fens with Cladium mariscus and species of the Caricion davallianae	Ø	Priotity habitat type	The site is also designated as a Special Area of Conservation (SAC) for this habitat type and is part of the Natura 2000 network within the European Union.
Bog woodland	Ø	Priority habitat type	The site is also designated as a Special Area of Conservation (SAC) for this habitat type and is part of the Natura 2000 network within the European Union.
Transition mires and quaking bogs	Ø		The site is also designated as a Special Area of Conservation (SAC) for this habitat type and is part of the Natura 2000 network within the European Union.
Northern Atlantic wet heaths with Erica tetralix	Ø		The site is also designated as a Special Area of Conservation (SAC) for this habitat type and is part of the Natura 2000 network within the European Union.
Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels X	Ø		The site is also designated as a Special Area of Conservation (SAC) for this habitat type and is part of the Natura 2000 network within the European Union.

Optional text box to provide further information

The site is also designated as a Special Area of Conservation (SAC) for the habitat types listed above and is part of the Natura 2000 network within the European Union.

4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

Alde Feanen is one of the few remnants of an extensive peat bog landscape. It consists of open water, reed lands, peat bogs, wooded marshland and grasslands on remains of peat. The channels (petgaten), that mostly lay hidden in reed and swamp forests, are in various stages of becoming land. In some channels floating vegetations occur, in other places quaking bog and Molinia meadows develop. After termination of the reed cutting activities, most channels close with swamp forest.

Plant communities of European interest that occur are:

- Lemno-Nitelletum capillarys
- Potametum lucentis
- Stratiotetum
- Cicuto-Caricetum pseudocyperi
- Cladietum marisci
- Cirsio dissecti-Molinietum
- Carici elongatae alnetum
- Thelypterido-Alnetum

The Alde Feanen is also a very important breeding area for birds of peat marshes, some of which occur here on the edge of their distribution in the Netherlands (Black tern) or even Europe (Purple heron). Other important marsh birds are Great Cormorant, Bittern, Marsh Harrier, Spotted Crake, Savi's Warbler and Sedge Warbler. The site is also valuable for birds of wet grasslands like Spotted Crake and Ruff. It is also the only breeding place of the Black-necked Grebe in the peat bog area. For migrating birds it is mainly important as foraging and resting area for Ruff and Black-tailed Godwit, ducks and geese.

Nowadays outdoor recreation is an important source of income for the villages around the Alde Feanen.

4.2 - What wetland type(s) are in the site?

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Fresh water > Lakes and pools >> O: Permanent freshwater lakes		2	637.2	Representative
Fresh water > Lakes and pools >> Tp: Permanent freshwater marshes/ pools		3	424.8	Rare
Fresh water > Marshes on peat soils >> Xp: Permanent Forested peatlands		4	212.4	Rare

Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type
4: Seasonally flooded agricultural land		1	849.6
9: Canals and drainage channels or ditches			

4.3 - Biological components

4.3.1 - Plant species

<no data available>

4.3.2 - Animal species

<no data available>

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion			
C: Moist Mid-Latitude climate with mild winters	Cfb: Marine west coast (Mild with no dry season,			
	warm summer)			

		(Cbf) and montane (EH).
1.4.2 - Geomorphic sett	ting	
a) Minimum elevation ab	oove sea level (in metres)	
a) Maximum elevation ab	pove sea level (in	
	metres)	
		Entire river basin
		art of river basin
		art of river basin
		art of river basin ☑ n one river basin □
	N	Not in river basin
		Coastal 🗆
river Rhine	or basins. If the site lies in a	a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.
1.4.3 - Soil		
		Organic 🗹
	(Update) Change	es at RIS update No change
		able information
Are soil types subject to	change as a result of changi	ing hydrological Yes O No ⊚
Conditio	ons (e.g., increased salinity o	or acidification)?
Please provide further inform		verticing mainly between 1750 and 1000
		vations mainly between 1750 and 1900.
 i ne general soil type. 	s are: Alluvial, Brown to	orest soils and montane soils. The general land use is forestry, pasture farming, arable farming,
inproductive land (high		orest soils and montane soils. The general land use is forestry, pasture farming, arable farming,
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inproductive land (high 4.4.4 - Water regime Water permanence Presence? Usually permanent water present Water destination Presence? Marine Feeds groundwater Stability of water regime Presence? Water levels largely stable Please add any comments of the winter water is drain	Changes at RIS update Changes at RIS update No change No change Changes at RIS update No change On the water regime and its dead to the Wadden Sea	
inproductive land (high 4.4.4 - Water regime Water permanence Presence? Usually permanent water present Water destination Presence? Marine Feeds groundwater Stability of water regime Presence? Water levels largely stable Please add any comments of the winter water is drain	Changes at RIS update Changes at RIS update No change No change Changes at RIS update No change On the water regime and its dead to the Wadden Sea	determinants (if relevant). Use this box to explain sites with complex hydrology. a. The average water depth is 1,2 meters. The water level is kept at 0,5 m – NAP.
inproductive land (high 1.4.4 - Water regime Vater permanence Presence? Usually permanent water present Vater destination Presence? Marine Feeds groundwater Stability of water regime Presence? Water levels largely stable Please add any comments of In winter water is drain The hydrological value	Changes at RIS update Changes at RIS update No change No change Changes at RIS update No change Changes at RIS update No change con the water regime and its desired to the Wadden Seares of the Alde Feanen in	determinants (if relevant). Use this box to explain sites with complex hydrology. a. The average water depth is 1,2 meters. The water level is kept at 0,5 m – NAP.
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4.4.7 - Water salinity

Fresh (<0.5 g/l)	₩
(Update) Changes at RIS update	No change Increase Decrease Unknown O
Unknown	

4.4.8 - Dissolved or suspended nutrients in water

Eutrophic	
(Update) Changes at RIS update	No change Increase Decrease Unknown O
Unknown	

Please provide further information on dissolved or suspended nutrients (optional):

Probably no change although the dissolved or suspended nutrients in water were not exactly known at the time of completing this database.

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the i) broadly similar O ii) significantly different O site itself:

Surrounding area has greater urbanisation or development $\ensuremath{\checkmark}$

Surrounding area has higher human population density 🗹

Surrounding area has more intensive agricultural use

Surrounding area has significantly different land cover or habitat types

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Food for humans	Sustenance for humans (e.g., fish, molluscs, grains)	Medium
Wetland non-food products	Livestock fodder	Medium
Wetland non-food products	Reeds and fibre	Medium

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	Medium
Hazard reduction	Flood control, flood storage	Medium

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Water sports and activities	High
Recreation and tourism	Recreational hunting and fishing	Medium
Recreation and tourism	Picnics, outings, touring	High
Scientific and educational	Educational activities and opportunities	Medium
Scientific and educational	Long-term monitoring site	High

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganizms, the genes they contain, and the ecosystems of which they form a part	High
Nutrient cycling	Carbon storage/sequestration	High

Optional text box to provide further information

The hydrological values of the Alde Feanen include flood control and groundwater replenishment.	
Diary farming 5 - 35%, Reed cutting 5 - 35%, Commercial fisheries 5 - 35%, Angling 5 - 35%, Exploration and extraction of oil or gas <5%, Residential (scattered) <5%, Leisure and tourism 5 - 35%, Nautical sports, Water management >95%. Approximately 250,000 visitors a year.	
Ongoing biodiversity monitoring is one of the obligatory activities in relation to the designated Natura2000 habitat types and/or species. SOVON, the Dutch Bird Research Organisation, coordinates for instance a continues national bird monitoring program in which it coopera with 7000 volunteers, research institutes and organisations in the monitoring of birds throughout the Netherlands (among which the Alde Feanen).	
Visitors centre, excursions, hide, information booklet.	
Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes O No O Unknown ●	
4.5.2 - Social and cultural values	
i) the site provides 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) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland	

<no data available>

4.6 - Ecological processes

iii) the ecological character of the wetland depends on its interaction $\hfill\Box$

iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological $\hfill\Box$

with local communities or indigenous peoples

character of the wetland

<no data available>

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

		owners	
I UL	JIIC	OWITEIS	HIIP

Category	Within the Ramsar Site	In the surrounding area
Provincial/region/state government	/	

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	2	2

Provide further information on the land tenure / ownership regime (optional):

within the Ramsar site:

The site is owned by It Fryske Gea (2181 ha) and Natuurmonumenten (3 ha); the remainder is in private ownership.

in the surrounding area: several private owners

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:	See https://www.itfryskegea.nl/natuurgebied/nationaal-park-alde-feanen/
Provide the name and/or title of the person or people with responsibility for the wetland:	See https://www.itfryskegea.nl/natuurgebied/nationaal-park-alde-feanen/
Postal address:	Head office: It Fryske Gea, P.O. Box 3, 9244 ZN Beetsterzwaag, tel. +31 (0)512 38 14 48.
E-mail address:	info@itfryskegea.nl

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Drainage	Medium impact	Medium impact	✓	No change	✓	No change

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Recreational and tourism activities	Medium impact	Medium impact	>	No change		No change

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Air-borne pollutants	High impact	High impact	✓	No change	 ✓	No change
Agricultural and forestry effluents	Medium impact	Medium impact	2	No change	2	No change

5.2.2 - Legal conservation status

Regional (international) legal designations

Regional (international) legal designations			
Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000	Alde Feanen	https://www.natura2000.nl/gebied en/friesland/alde-feanen	whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
National Ecological Network (NEN)	Alde Feanen	https://www.government.nl/topics /nature-and-biodiversity/nationa l- ecological-network-nen	whole
National Park	Alde Feanen	https://www.np-aldefeanen.nl/	whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Alde Feanen	http://datazone.birdlife.org/sit e/factsheet/1233	whole
Important Plant Area	Alde Feanen	https://atlasnatuurlijkkapitaal. nl/important-plant-areas	partly
Other non-statutory designation	KBA Alde Feanen	http://www.keybiodiversityareas. org/site/factsheet/1233	whole

5.2.3 - IUCN protected areas categories (2008)

	la Strict Nature Reserve
	Ib Wilderness Area: protected area managed mainly for wilderness protection
¥	II National Park: protected area managed mainly for ecosystem protection and recreation
	III Natural Monument: protected area managed mainly for conservation of specific natural features
¥	IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
	V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
	VI Managed Resource Protected Area: protected area managed mainly

5.2.4 - Key conservation measures

Legal protection

Legal protection		
Measures	Status	
Legal protection	Implemented	

Habitat

Measures	Status
Habitat manipulation/enhancement	Implemented
Improvement of water quality	Implemented
Hydrology management/restoration	Implemented

Species

Measures	Status
Threatened/rare species management programmes	Implemented

Human Activities

Measures	Status	
Regulation/management of recreational activities	Implemented	
Communication, education, and participation and awareness activities	Implemented	
Research	Implemented	

5.2.5 - Management planning

Is there a site-specific management plan for the site? Yes

Has a management effectiveness assessment been undertaken for the site? Yes \odot No \circ

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning Yes O No

processes with another Contracting Party?

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site.

Visitors centre, excursions, hide, information booklet.

URL of site-related webpage (if relevant): https://www.bij12.nl/onderwerpen/natuur-en-landschap/natura-2000-beheerplannen/13-alde-feanen/

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? Yes, there is a plan

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Birds	Implemented
Animal species (please specify)	Implemented
Plant community	Implemented

Ongoing biodiversity monitoring is one of the obligatory activities in relation to the designated Natura2000 habitat types and/or species. SOVON, the Dutch Bird Research Organisation, coordinates for instance a continues national bird monitoring program in which it cooperates with 7000 volunteers, research institutes and organisations in the monitoring of birds throughout the Netherlands (among which the Alde Feanen).

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

The site equals the Natura 2000-boundaries. Voor up-to-date information and references about the site see https://www.natura2000.nl/gebieden/friesland/alde-feanen.

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

ii. a detailed Ecological Character Description (ECD) (in a national format)

iii. a description of the site in a national or regional wetland inventory

iv. relevant Article 3.2 reports

v. site management plan

<1 file(s) uploaded>

vi. other published literature

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



- (Erik van Dijk , -)

6.1.4 - Designation letter and related data

Designation letter

<2 file(s) uploaded>

Date of Designation 1992-12-30