National Parks and Wildlife Service

Conservation Objectives Series

Poulaphouca Reservoir SPA 004063



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Introduction

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network.

European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the Natura 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

A site-specific conservation objective aims to define favourable conservation condition for a particular habitat or species at that site.

The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Notes/Guidelines:

- 1. The targets given in these conservation objectives are based on best available information at the time of writing. As more information becomes available, targets for attributes may change. These will be updated periodically, as necessary.
- 2. An appropriate assessment based on these conservation objectives will remain valid even if the targets are subsequently updated, providing they were the most recent objectives available when the assessment was carried out. It is essential that the date and version are included when objectives are cited.
- 3. Assessments cannot consider an attribute in isolation from the others listed for that habitat or species, or for other habitats and species listed for that site. A plan or project with an apparently small impact on one attribute may have a significant impact on another.
- 4. Please note that the maps included in this document do not necessarily show the entire extent of the habitats and species for which the site is listed. This should be borne in mind when appropriate assessments are being carried out.
- 5. When using these objectives, it is essential that the relevant backing/supporting documents are consulted, particularly where instructed in the targets or notes for a particular attribute.

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Qualifying Interests

* indicates a priority habitat under the Habitats Directive

004063	Poulaphouca Reservoir SPA	
A043	Greylag Goose Anser anser	
A183	Lesser Black-backed Gull Larus fuscus	

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Supporting documents, relevant reports & publications

Supporting documents, NPWS reports and publications are available for download from: www.npws.ie/Publications

NPWS Documents

Year: 2008

Title: An assessment of the distribution range of Greylag (Icelandic-breeding and feral populations)

in Ireland

Author: Boland, H.; Crowe, O.

Series: Report to the National Parks and Wildlife Service and the NIEA

Year: 2013

Title: A review of the SPA network of sites in the Republic of Ireland

Author: NPWS

Series: Unpublished Report

Year: 2019

Title: Irish wetland bird survey: waterbird status and distribution 2009/10-2015/16

Author: Lewis, L. J.; Burke, B.; Fitzgerald, N.; Tierney, T. D.; Kelly, S.

Series: Irish Wildlife Manuals No. 106

Year: 2022

Title: Greylag and pink-footed geese in Ireland 2017/18-19/20

Author: Burke, B.; Fitzgerald, N.; Kelly, S.; Lewis, L.J.

Series: Unpublished report to NPWS

Other References

Year: 1995

Title: Impacts of hunting disturbance on waterbirds - a review

Author: Madsen, J.; Fox, A.D.

Series: Wildlife Biology 1(4):193-207

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Conservation Objectives for: Poulaphouca Reservoir SPA [004063]

A043 Greylag Goose *Anser anser*

To restore the Favourable conservation condition of Greylag Goose in Poulaphouca Reservoir SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Winter population trend	Percentage change in number of individuals	Long term winter population trend is stable or increasing	The national population of wintering Greylag Goose in Ireland has decreased by 21% from 1999 - 2018, as monitored via the Irish Wetland Bird Survey (I-WeBS) (Lewis et al., 2019). During the baseline assessments to inform SPA designation, 701 Greylag Goose were estimated to be using this SPA (5 year mean of peak counts from I-WeBS monitoring for period 1995/96 - 1999/2000; see NPWS, 2013). More recent data showed a population of 158 Greylag Goose used the SPA during the period 2012/13 - 2016/17 (4 year mean of peak counts from I-WeBS monitoring). This represents a population decrease of 78% since the baseline period, greater than the national trend
Winter spatial distribution	Hectares, time and intensity of use	Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target	Distribution encapsulates the number of locations and area of potentially suitable habitat for the wintering population and its availability for use. The suitability and availability of habitat areas are likely to vary throughout the season, for example, due to variation in land management practices or the abundance of resources available (due to natural variation and other factors). This will affect the spatio-temporal patterns of use of the habitats by the wintering population
Disturbance at wintering site	Intensity, frequency, timing and duration	Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution	The impact of any significant disturbance (direct or indirect) to the wintering population will ultimately affect the achievement of targets for population trend and/or spatial distribution. Disturbance contributes to increased energetic expenditure which can result in increased likelihood of winter mortality or reduced fitness (if energy expenditure is greater than energy gain) and, in turn, negatively impact population trends (see, for example, Madsen and Fox, 1995). Factors such as intensity, frequency, timing and duration of a (direct or indirect) disturbance source must be taken into account to determine the potential impact upon the targets for population trend and spatial distribution
Barriers to connectivity and site use	Number, location, shape and hectares	Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA	Barriers limiting the population's access to this SPA or ecologically important sites outside the SPA will ultimately affect the achievement of targets for population trend and/or spatial distribution. Factors such as the number, location, shape and area of potential barriers must be taken into account to determine their potential impact. Access to ecologically important sites outside the SPA must also be considered as a single SPA may not satisfy all the ecological requirements of the wintering population, and it may require access to other SPAs or sites for certain activities, such as foraging when preferred foraging areas are unavailable due to disturbance, extensive flooding, or other factors

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Forage spatial distribution, extent and abundance	Location, hectares, and forage biomass	Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	This species is primarily a grazer. Key foraging habitats include marshes, grasslands (particularly wet grasslands) and other wetland habitats, cereal stubble, estuaries, and lakes. Key forage resources are herbaceous plant materials accessible at ground level in terrestrial areas or from the surface of water bodies, including roots (of rushes and sedges, for example), grasses and other leaves, stems, tubers (such as potatoes), and (spilled) grain. At Poulaphouca Reservoir SPA, birds have been observed feeding on ryegrass, mustard and winter cereals, as well as on a nearby freshwater marsh (Boland and Crowe, 2008)
Roost spatial distribution and extent	Location and hectares of roosting habitat	Sufficient number of locations, area and availability of suitable roosting habitat to support the population target	Roosting is a critical ecological requirement for the wintering population. When roosting overnight, this species typically utilises lakes, estuaries and other open waterbodies. At Poulaphouca Reservoir SPA, birds have been recorded roosting on the reservoir (Boland and Crowe, 2008). Daytime roosting is also a common behaviour, where birds minimise activity levels to conserve energy, while benefitting from the vigilance of other flock members. A lack of sufficient and suitable roosting habitats can result in increased mortality risk, whether indirectly (e.g. via increased energy expenditure travelling to/from roost sites) or directly (e.g. via increased predation risk), or reduction in site use; this would ultimately affect the achievement of targets for population trend and/or spatial distribution
Supporting habitat: area and quality	Hectares and quality	Sufficient area of utilisable habitat available in ecologically important sites outside the SPA	The wintering population can make extensive use of suitable habitats in important areas outside the SPA, for foraging and roosting. The extent, availability and quality of these supporting habitats may be of importance for the resilience of the SPA population. Suitable supporting habitats include those highlighted in the attributes for foraging and roosting habitat

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Conservation Objectives for: Poulaphouca Reservoir SPA [004063]

A183 Lesser Black-backed Gull *Larus fuscus*

To maintain the Favourable conservation condition of Lesser Black-backed Gull in Poulaphouca Reservoir SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Winter population trend	Percentage change in number of individuals	Long term winter population trend is stable or increasing	During the baseline assessments to inform SPA designation, a population of 651 Lesser Blackbacked Gull were estimated to be using this SPA (5 year mean of peak counts from I-WeBS monitoring for period 1995/96 - 1999/2000; see NPWS, 2013). There is insufficient data available to generate a more recent estimate of the population of Lesser Black-backed Gull using this SPA, nor to determine a population trend for this species within the SPA
Winter spatial distribution	Hectares, time and intensity of use	Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target	Distribution encapsulates the number of locations and area of potentially suitable habitat for the wintering population and its availability for use. The suitability and availability of habitat areas are likely to vary throughout the season, for example, due to variation in land management practices or the abundance of resources available (due to natural variation and other factors). This will affect the spatio-temporal patterns of use of the habitats by the wintering population
Disturbance at wintering site	Intensity, frequency, timing and duration	Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution	The impact of any significant disturbance (direct or indirect) to the wintering population will ultimately affect the achievement of targets for population trend and/or spatial distribution. Disturbance contributes to increased energetic expenditure whic can result in increased likelihood of winter mortality or reduced fitness (if energy expenditure is greater than energy gain) and, in turn, negatively impact population trends (see, for example, Madsen and Fox, 1995). Factors such as intensity, frequency, timing and duration of a (direct or indirect) disturbance source must be taken into account to determine the potential impact upon the targets for population trend and spatial distribution
Barriers to connectivity and site use	Number, location, shape and hectares	Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA	Barriers limiting the population's access to this SPA or ecologically important sites outside the SPA will ultimately affect the achievement of targets for population trend and/or spatial distribution. Factors such as the number, location, shape and area of potential barriers must be taken into account to determine their potential impact
Forage spatial distribution, extent and abundance	Location, hectares, and forage biomass	Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	This species is omnivorous with an opportunistic, scavenging foraging strategy, with kleptoparasitism also noted. In winter, this species forages within marine, freshwater and terrestrial (open habitat) environments, and food sources include fish, invertebrates, rodents, birds, and fishing discards, well as other food scraps/waste. This species can switch foraging habitat depending on prey availability. Foraging methods include dipping-tosurface, surface-plunging, shallow-plunging, and surface pecking in aquatic environments, and scavenging, walking and pecking when on land

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Roost spatial distribution and extent	Location and hectares of roosting habitat	Sufficient number of locations, area and availability of suitable roosting habitat to support the population target	Roosting is a critical ecological requirement for the wintering population. The species is found in a wide variety of marine, freshwater and terrestrial (including inland) habitats during winter. Daytime roosting is also a common behaviour, where birds minimise activity levels to conserve energy, while benefitting from the vigilance of other flock members. A lack of sufficient and suitable roosting habitats can result in increased mortality risk, whether indirectly (e.g. via increased energy expenditure travelling to/from roost sites) or directly (e.g. via increased predation risk), or reduction in site use; this would ultimately affect the achievement of targets for population trend and/or spatial distribution
Supporting habitat: area and quality	Hectares and quality	Sufficient area of utilisable habitat available in ecologically important sites outside the SPA	The wintering population can make extensive use of suitable habitats in important areas outside the SPA, for foraging and roosting. The extent, availability and quality of these supporting habitats may be of importance for the resilience of the SPA population. Suitable supporting habitats include those highlighted in the attributes for foraging and roosting habitat

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