

# National Parks and Wildlife Service

## *Conservation Objectives Series*

Lough Gara SPA 004048



**NPWS**

An tSeirbhís Páirceanna  
Náisiúnta agus Fiadhúlra  
National Parks and Wildlife  
Service

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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.

## Qualifying Interests

*\* indicates a priority habitat under the Habitats Directive*

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004048	Lough Gara SPA
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A038	Whooper Swan <i>Cygnus cygnus</i>
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A395	Greenland White-fronted Goose <i>Anser albifrons flavirostris</i>
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**Please note that this SPA is adjacent to Callow Bog SAC (000595). See map 2. The conservation objectives for this site should be used in conjunction with those for the adjacent site as appropriate.**



## Supporting documents, relevant reports & publications

*Supporting documents, NPWS reports and publications are available for download from: [www.npws.ie/Publications](http://www.npws.ie/Publications)*

### NPWS Documents

<b>Year :</b>	2013
<b>Title :</b>	A review of the SPA network of sites in the Republic of Ireland
<b>Author :</b>	NPWS
<b>Series :</b>	Published Report
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<b>Year :</b>	2019
<b>Title :</b>	Irish wetland bird survey: waterbird status and distribution 2009/10-2015/16
<b>Author :</b>	Lewis, L.J.; Burke, B.; Fitzgerald, N.; Tierney, T.D.; Kelly, S.
<b>Series :</b>	Irish Wildlife Manuals No. 106
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## Other References

<b>Year :</b>	1995
<b>Title :</b>	Impacts of hunting disturbance on waterbirds - a review
<b>Author :</b>	Madsen, J.; Fox, A.D.
<b>Series :</b>	Wildlife Biology 1(4):193-207
<b>Year :</b>	2016
<b>Title :</b>	Assessing connectivity with Special Protection Areas (SPAs)
<b>Author :</b>	Scottish Natural Heritage
<b>Series :</b>	Guidance Series Version 3 - June 2016
<b>Year :</b>	2018
<b>Title :</b>	A review of Greenland white-fronted geese in Ireland 1982/83 – 2011/12
<b>Author :</b>	Burke, B.; Egan, F.; Norriss, D.; Wilson, H.J.; Walsh, A.J.
<b>Series :</b>	Unpublished report
<b>Year :</b>	2019
<b>Title :</b>	Report of the 2018/19 international census of Greenland white-fronted geese
<b>Author :</b>	Fox, T.; Francis, I.; Walsh, A.; Norriss, D.
<b>Series :</b>	Unpublished report
<b>Year :</b>	2019
<b>Title :</b>	Report under the Article 12 of the Birds Directive Period 2008-2012
<b>Author :</b>	EEA
<b>Series :</b>	European Environment Agency. European Topic Centre on Biological Diversity. Pp 1-9
<b>Year :</b>	2020
<b>Title :</b>	Report of the 2019/20 international census of Greenland white-fronted geese
<b>Author :</b>	Fox, T.; Francis, I.; Walsh, A.; Norriss, D.
<b>Series :</b>	Unpublished report
<b>Year :</b>	2021
<b>Title :</b>	Population size, breeding success and habitat use of Whooper Swan <i>Cygnus cygnus</i> and Bewick's Swan <i>Cygnus columbianus bewickii</i> in Ireland: results of the 2020 International Swan Census
<b>Author :</b>	Burke, B.; McElwaine, J.G.; Fitzgerald, N.; Kelly, S.B.A.; McCulloch, N.; Walsh, A.J.; Lewis, L.J.
<b>Series :</b>	Irish Birds 43: 57-70
<b>Year :</b>	2021
<b>Title :</b>	Report of the 2020/21 international census of Greenland white-fronted geese
<b>Author :</b>	Fox, T.; Francis, I.; Walsh, A.; Norriss, D.; Kelly, S.
<b>Series :</b>	Unpublished report
<b>Year :</b>	2022
<b>Title :</b>	Report of the 2021/22 international census of Greenland white-fronted geese
<b>Author :</b>	Fox, T.; Francis, I.; Walsh, A.; Norriss, D.; Kelly, S.
<b>Series :</b>	Unpublished report
<b>Year :</b>	2023
<b>Title :</b>	Report of the 2022/23 international census of Greenland white-fronted geese
<b>Author :</b>	Fox, T.; Francis, I.; Walsh, A.; Norriss, D.; Kelly, S.
<b>Series :</b>	Unpublished report

## Conservation Objectives for : Lough Gara SPA [004048]

### A038 Whooper Swan *Cygnus cygnus*

**To restore the Favourable conservation condition of Whooper Swan in Lough Gara 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 Whooper Swan wintering in Ireland has increased in the long term, with a 40% population increase from 1991 - 2015 (Lewis et al., 2019). During the baseline assessments to inform SPA designation, 321 Whooper Swan were estimated to be using this SPA (5 year mean of peak counts for baseline period 1995/96 - 1999/2000; see NPWS, 2013). A population of 105 Whooper Swan was estimated to be using Lough Gara SPA in recent years (4 year mean of peak counts from the Irish Wetland Bird Survey (I-WeBs) monitoring for the period 2017/18 - 2021/22; note: the count for the 2020/21 period was taken from Burke et al., 2021). This represents an estimated population decrease of 68% since the baseline period. This trend is in contrast to 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 is 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), which can 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

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 feeds on a wide range of aquatic and terrestrial vegetation. Key forage materials include: leaves, with significant consumption of grasses; seeds, including spilled grain; roots; tubers, including potatoes; shoots, including those from winter wheat and other cereals. Key foraging habitats are grasslands (including wet grassland, semi-improved grassland, and intensive grassland), arable stubble, winter cereals, rivers, lakes, turloughs and other wetland habitats. In general, the foraging distance of wintering Whooper Swan from night roosts is estimated to be less than 5km (Scottish Natural Heritage, 2016), although this will vary depending on site and landscape
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	Overnight roosting habitat consists primarily of permanent waterbodies, such as rivers, lakes, turloughs, lagoons and other open waterbodies. Roosting is a critical ecological requirement for the wintering population. 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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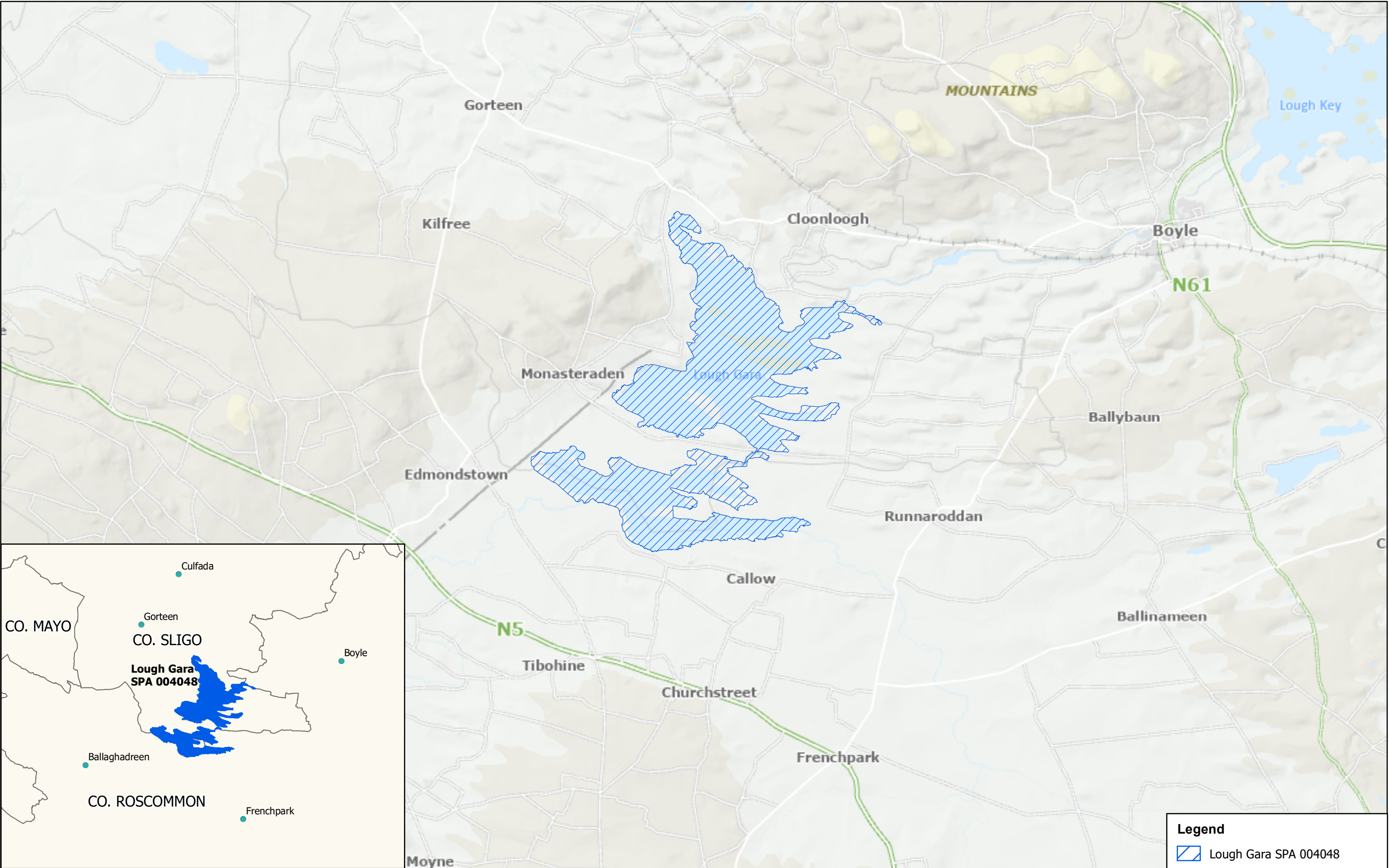
### A395 Greenland White-fronted Goose *Anser albifrons flavirostris*

**To restore the Favourable conservation condition of Greenland White-fronted Goose in Lough Gara 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 Greenland White-fronted Goose has declined by 13% between 1985 - 2018 (EEA, 2019). During the baseline assessments to inform SPA designation, 510 geese were estimated to be using this SPA (5 year mean of peak counts for baseline period 1994/95 - 1998/99; see NPWS, 2013). A population of 118 geese were estimated to using the SPA in recent years (5 year mean of peak counts 2018/19 - 2022/23 from Greenland White-fronted Goose annual census reports see Fox et al., 2019, 2020, 2021, 2022 and 2023). This represents a 77% decline in the SPA population since the baseline period which is significantly 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

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 a grazer, feeding on a wide range of vegetation. Key forage materials include roots, tubers (such as potatoes), shoots (such as winter wheat), stolons, rhizomes, leaves (such as grasses), and seed such as (spilled) grain. Key habitats include peat bogs (including raised bogs and blanket bogs), grasslands (such as wet grassland, callows, semi-improved grassland, and intensive grassland), arable stubble, winter cereal fields, coastal grasslands, and occasionally salt marsh. In general, the foraging distance of wintering Greenland White-fronted Goose from night roosts is estimated at 5km to 8km (Scottish Natural Heritage, 2016), although this will vary depending on site and landscape
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	Overnight roosting habitat mainly consists of permanent waterbodies, such as lakes, estuaries, bays, and other open waterbodies. When roosting in waterbodies, this species can roost on above-water features such as sandbanks. Roosting is a critical ecological requirement for the over-wintering population. 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. Some important feeding sites used by the geese at Lough Gara fall outside the SPA, including: grasslands at Derrybeg, Ross and Rathtermun, as well as grasslands at the upper lake and Callow Lake (Burke et al., 2018)





**Legend**

 Lough Gara SPA 004048



