

# Ramsar Information Sheet

Published on 7 March 2023 Update version, previously published on : 11 June 1996

# **Ireland**Lough Glen



Designation date 7 June 1996
Site number 849
Coordinates 53°38'51"N 07°34'21"W

Area 81,00 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

Glen Lough (Lough Glen) is a seasonal lake situated on the border of counties Westmeath and Longford. It is circa 80ha in size. Glen Lough was once a sizeable lake, however drainage during the 1960's resulted in a significant drop in the water table and there is currently very little open water, except during flooding in the winter months. Restoration works in more recent years have aimed to increase lake levels without affecting the drainage of upstream lands reliant on the maintained channel. The restoration works were facilitated by the creation of a berm along an existing drainage channel.

Marsh now dominates the site and the habitat may be better classified as permanent freshwater marshes with pools. However the site is greater than 8ha and the aim of recent restoration works is to bring the lake back to its former, more open water, habitat. Other habitats occurring within and around the lake include reed swamp, alkaline fen, wet woodland, wet and dry grassland, cutaway bog colonised by heath vegetation, scrub and wet willow woodland. Commercial conifer plantation dominates to the north of the site and includes plantation within the lake basin.

The Comogue River flows into and feeds the site from the northwest and the Black River flows to the south of the site. Historically the River Black flowed into and out of Glen Lough (prior to the drainage scheme that drained this lake) before flowing into the River Inny. However, the flow of the River Black has been altered and it is now connected to the Comogue River via a drainage channel. This channel drains into Glen Lough.

The site is designated as a Natura 2000 site (Special Protection Area) under the E.U. Birds Directive due to the presence of Whooper Swan an Annex I and migratory species which visits Ireland during the winter months. A range of other wintering waterbirds use the site for foraging and roosting during the winter months.

## 2 - Data & location

#### 2.1 - Formal data

#### 2.1.1 - Name and address of the compiler of this RIS

#### Responsible compiler

Institution/agency National Parks and Wildlife Service, Department of Housing, Local Government and Heritage

National Parks and Wildlife Service,

90 North King Street,

Postal address Smithfield, Dublin,

Ireland D07 N7CV

#### National Ramsar Administrative Authority

Institution/agency | National Parks and Wildlife Service, Department of Housing, Local Government and Heritage

National Parks and Wildlife Service,

90 North King Street, Smithfield, Dublin,

Postal address

Ireland D07 N7CV

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

From year 2004

To year 2019

#### 2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)

Lough Glen

Unofficial name (optional)

Glen Lough

#### 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 

(Update) B. Changes to Site area No change to area

(Update) For secretariat only. This update is an extension □

## 2.1.5 - Changes to the ecological character of the Site

(Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS?

#### 2.2 - Site location

## 2.2.1 - Defining the Site boundaries

#### b) Digital map/image

<2 file(s) uploaded>

Former maps 0

## Boundaries description

The boundary of Lough Glen Ramsar site was delineated as the same boundary as the original Special Protection Area in 1995. This site is contained within the boundaries of the EU Birds Directive (2009/147/EC) Special Protection Area for Glen Lough. Details of the SPA can be found on the NPWS website at: https://www.npws.ie/protected-sites. Within this area a number of GIS data layers were used to define the Ramsar habitats within the site. These included:

Within the site a number of GIS data layers were used to define the Ramsar habitats within the site. These included:

- NPWS data (Site-Specific Conservation Objectives)
- CORINE (Co-Ordinated Information on the Environment) land cover data sets (2012).
- Bing Maps Aerial © Harris Corp, Earthstar Geographics LLC © 2017 Intermap Earthstar Geographics SIO © 2017 Microsoft Corporation.
- Environmental Protection Agency of Ireland Rivers and Lakes layers data layers.

The mapped layers were inspected by a site visit to confirm the presence of the habitats. Habitat areas were subsequently estimated by reference to the available imagery and layers and should be considered representative but approximate.

## 2.2.2 - General location

a) In which large administrative region does Midlands Region (NUTS 3) the site lie?

b) What is the nearest town or population Mullingar Town centre?

## 2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries?

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party?

## 2.2.4 - Area of the Site

Official area, in hectares (ha): 81

Area, in hectares (ha) as calculated from 80.903 GIS boundaries

## 2.2.5 - Biogeography

Biogeographic regions

gp	
Regionalisation scheme(s)	Biogeographic region
Marine Ecoregions of the World (MEOW)	Atlantic
EU biogeographic regionalization	Atlantic

#### Other biogeographic regionalisation scheme

British Isles

Palearctic (WWF Terrestrial Ecoregions), Northern British Isles (FEOW)

## 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

Extensive drainage in the 1960s resulted in a dramatic drop in the water table at this site. As a result that there is now little open water, except during flooding in the winter months. While drainage works have Hydrological services provided changed the hydrology of the site and diminished its functions in terms of water storage, it still has a role in terms of water retention and flood control. Some remedial works have been carried out on the lake to offset previous drainage works.

#### Other ecosystem services provided

Glen Lough is important for seasonal water retention for wetlands which has a significant hydrological influence in the context of maintaining wetland systems (though substantially modified) within the Ramsar site.

The various habitats encountered at Glen Lough include reed swamp, wet and dry grassland, cutaway bog colonised by heath vegetation, scrub and wet willow woodland. Lough Glen is designated as a Natura 2000 site (Special Protection Area) under the E.U. Birds Directive due to the presence of the Whooper Swan.

#### Criterion 2 : Rare species and threatened ecological communities

Rare (high conservation concern) wintering bird species are defined as:

Regularly occurring species (occurring in at least 3 out of 10 seasons of monitoring or 30% of seasons; based on I-Webs data from 2006/07 to 2015/16) and that are:

# Optional text box to provide further

- Red Listed in Ireland's national Red List (Birds of Conservation Concern in Ireland (BoCCI) published by Colhoun and Cummins (2013)
- Classified as VU in IUCN Global and/or European regional list
- Listed in Annex I of the European Union Birds Directive

#### Criterion 3 : Biological diversity

#### Justification

Glen Lough is an important site in the context of supporting the regional biodiversity of the area. It forms one of a cluster of midland lakes. These sites are of importance as a source of wetland dependent species dispersing to surrounding areas as well as for their significance in maintaining the characteristic regional biodiversity of the area. Recent research (Biochange 2011) has found that small, isolated wetlands often maintain high biodiversity. These sites are equally as worthy of conservation effort as the larger, more intact systems usually targeted for conservation action

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

The wetland habitats at this site, together with other nearby and associated wetland sites provide key foraging and roosting habitat for over-wintering waterbirds. Glen Lough is of particular important for Optional text box to provide further wintering Whooper Swan which are known to occur here in numbers of international importance and are information an Annex I species under the EU Birds Directive. The majority of Whooper Swans wintering in Ireland originate from the Icelandic breeding population (Lewis et al, 2019)

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

<no data available>

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

Phylum	Scientific name	Species qualifies under criterion 2 4 6 9 3 5 7	es Pop. rion Size	Period of pop. Est.	occurrence	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
Birds										
CHORDATA/ AVES	Anas clypeata	880000	□ 14	2011-2015					Red-listed in Birds of Conservation Concern in Ireland (Colhoun and Cummins 2013)	National (BoCCI) classification, part of wintering assemblage.
CHORDATA/ AVES	Anas crecca		61	2011-2015		LC			Amber-listed in Birds of Conservation Concern in Ireland (Colhoun and Cummins 2013)	Part of wintering assemblage, maintaining biodiversity.
CHORDATA/ AVES	Anas penelope		35	2011-2015					Red-listed in Birds of Conservation Concern in Ireland (Colhoun and Cummins 2013)	National (BoCCI) classification, part of wintering assemblage.
CHORDATA/ AVES	Cygnus cygnus	880000	119	2011-2015		LC			Listed on Annex I (Birds Directive), Amber-listed in Birds of Conservation Concern in Ireland (Colhoun and Cummins 2013)	Annex I listing, and National (BoCCI) classification, part of wintering assemblage.
CHORDATA/ AVES	Cygnus olor		8	2011-2015		LC			Amber-listed in Birds of Conservation Concern in Ireland (Colhoun and Cummins 2013)	Part of wintering assemblage, maintaining biodiversity.
CHORDATA/ AVES	Tachybaptus ruficollis		6	2011-2015		LC			Amber-listed in Birds of Conservation Concern in Ireland (Colhoun and Cummins 2013)	Part of wintering assemblage, maintaining biodiversity.
CHORDATA/ AVES	Vanellus vanellus		120	2011-2015		NT			Red-listed in Birds of Conservation Concern in Ireland (Colhoun and Cummins 2013), and Vulnerable classification IUCN Europe region)	National (BoCCI) and IUCN classifications, part of wintering assemblage.

<sup>1)</sup> Percentage of the total biogeographic population at the site

Wintering bird species listed under 3.3 have been selected based on an assessment of Irish Wetland Bird Survey data from the period 2006/07 to 2015/16. Lough Glen Ramsar Site is a Special Protection Area (SPA) for birds, however not all species listed for the SPA may be listed under 3.3 (or vice versa) as the SPA designation is based on other data and criteria.

Glen Lough is designated as a Natura 2000 site (Special Protection Area) due to the presence of the Whooper Swan (Cygnus cygnus). In the past the site was used by Internationally important numbers of wintering Whooper Swan. Historically the site was used by the midland flock of Greenland White-fronted Geese. It is also used by a range of other wintering waterbirds.

I-WeBS data (from the period 2006/07 to 2015/16) shows Whooper Swan flock numbers have fluctuated greatly with annual mean counts ranging from 20 to 194 (ie below the threshold for international importance). I-WeBs data (same period) show the site is also used by Mute Swan (Cygnus olor), Wigeon (Anas penelope), Teal (Anas crecca), Shoveler (Anas clypeata) and Northern lapwing (Vanellus vanellus). The Northern Lapwing, an intermittent visitor at the site, is 'Near Threatened' within Europe and Vulnerable globally on the IUCN red list. EUNIS lists the EU population of this species as Threatened. The EU population of the Shoveler, an intermittent visitor to the site, is listed as Depleted (EUNIS). The Wigeon, once present in large numbers at the site but whose abundance has decreased significantly, is deemed Threatened (EU population-EUNIS).

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

<no data available>

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

## 4.1 - Ecological character

Lough Glen is a modified lake water body. Owing to significant drainage in the 1960's the lake is now seasonal with little open water, except during flooding in the winter months. Sedge-dominated freshwater marsh now occupies the majority of what was once open water. Plant species present include Bottle Sedge (Carex rostrata), Water Horsetail (Equisetium fluviatile) and Canary Reed-grass (Phalaris arundinacea). Other habitats within and around the lake edge include reed swamp, alkaline fen, wet and dry grassland, cutaway bog colonised by heath vegetation, scrub and wet willow (Salix spp.) and broadleaved woodland. The ecological character of the site has been altered through implementation of the drainage scheme which significantly reduced the open water areas of the lake. Recent restoration measures designed to increase water levels aim to restore water levels to those closer to their original levels. The lake is surrounded by improved agricultural grassland, commercial conifer plantation and scrub. Significant areas of cutover raised bog also surround the site and some are within 250 meters of the site boundary.

## 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 >> P: Seasonal/ intermittent freshwater lakes	Seasonal lake	1	76	Representative
Fresh water > Marshes on peat soils >> U: Permanent Non- forested peatlands	Marsh, reed swamp and fen	2	76	Representative
Fresh water > Marshes on inorganic soils >> W: Shrub- dominated wetlands	Wet woodland	3	3	Representative

## 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)

## 4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)
a) Maximum elevation above sea level (in metres)
Entire river basin
Upper part of river basin 🗷
Middle part of river basin
Lower part of river basin
More than one river basin
Not in river basin
Constal

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

Shannon International River Basin District (SIRBD)

Upper Shannon Catchment, Inny (Shannon)\_SC\_050 Sub catchment, Black (Westmeath)\_020 Sub basin (Water Framework Directive; EPAMaps.ie).

#### 4.4.3 - Soil

Mineral   ✓	
<sup>(Update)</sup> Changes at RIS update No change  □ Increase  □ Decrease  □ Unknown  □	
Organic <b>☑</b>	
<sup>(Update)</sup> Changes at RIS update No change  □ Increase  □ Decrease  □ Unknown  □	
No available information ☐	
Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)?	

#### Please provide further information on the soil (optional)

A Grey Brown Podzolic soil is found from the limestone outcrop west along the shore to include the area of fen. The parent material is limestone drift with shales. This soil occurs dominantly on glacial till. Surface textures of loam to silt loam overlie a lower horizon with a clay loam to silty clay loam texture. The pH is generally high and this soil is well drained. The rest of the site is surrounded by "Fen peat improved soil". It is classified as a Histosol with Limnic meisaprist. The parent material is minerotrophic peat. This soil type is formed under base-rich groundwater conditions and the plant community is typically minerotrophic. The profile has an organic surface horizon and the structure is well developed at the surface but dis-improves with depth. The permanent water table occurs at around at around 70cm below the surface. It is a well-drained soil with moderate permeability.

#### 4.4.4 - Water regime

#### Water permanence

Presence?	Changes at RIS update
Usually permanent water present	No change

#### Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Water inputs from surface water	✓	No change
Water inputs from precipitation		No change

#### Water destination

Presence?	Changes at RIS update
Feeds groundwater	No change
To downstream catchment	No change

## Stability of water regime

Presence?	Changes at RIS update
Water levels fluctuating (including tidal)	No change

Please add any comments on the water regime and its determinants (if relevant). Use this box to explain sites with complex hydrology.

The Comogue River flows into and feeds the site from the Northwest. Lough Glen was once a sizeable lake, however because of arterial drainage there is currently very little open water, some flooding of the lake does occur in winter months. Restoration works carried out by the creation of a berm aim to rectify this. Historically the River Black flowed into and out of Glen Lough before flowing to the River Inny. However, the flow of the River Black has been altered and it is now connected to the Comogue River via a drainage channel. The permanent water table occurs at around at around 70cm below the surface.

## 4.4.5 - Sediment regime

Sediment regime unknown (ECD) Water turbidity and colour Hazen (Colour) 71.17 (ECD) Light - reaching wetland Transparency 1.79m. (ECD) Water temperature 11.80

F.4.6 - Water pH	
Circumneutral (pH: 5.5-7.4) ■	
(Update) Changes at RIS update No change ● Increase O Decrease O Unknown O	
Unknown	
Please provide further information on pH (optional):	
6.70	

What is the Site like?, S4 - Page 2

#### 4.4.7 - Water salinity

Fresh (<0.5 g/l) ■	
<sup>(Update)</sup> Changes at RIS update No change <b>②</b> Increase <b>○</b> Decrease <b>○</b> Unknown <b>○</b>	
Unknown □	
ECD) Dissolved gases in water	
Dissolved Oxygen 96.63%, 10.56mg/L;	

#### 4.4.8 - Dissolved or suspended nutrients in water

Unknown 🗹

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

The River Black feeds into this site and under the Water Framework Directive the River Black is classed as being of 'Poor' status. EPA monitoring over 2012-2014 recorded the following:

Magnesium - unspecified 1.51 mg/L;

Nitrate (as N)0.10 mg/L; Nitrite (as N) 0.00 mg/L;

ortho-Phosphate (as P) - unspecified 0.01 mg/L; Potassium - unspecified 0.50 mg/L;

Silica (as Si)0.70 mg/L;

Sodium - unspecified 10.68 mg/L;

Sulphate 2.30 mg/L

(ECD) Dissolved organic carbon	8.75mg/L
(ECD) Water conductivity	82.27 μS/cm

#### 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 of site itself:

Surrounding area has greater urbanisation or development 
Surrounding area has higher human population density

Surrounding area has more intensive agricultural use 
Surrounding area has significantly different land cover or habitat types

Please describe other ways in which the surrounding area is different:

Glen Lough is surrounded by intensive agricultural land, forestry plantation and cutover raised bog. Fertiliser, nutrient and sediment run-off is likely, with implications for plant communities within the lake. Any further planting would be of concern as this could remove feeding areas used by the swans, geese and herbivorous wildfowl. The conifer plantation is likely to have interfered with the hydrology of the site, in addition to impacts resulting from significant drainage in the 1960's.

## 4.5 - Ecosystem services

#### 4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Wetland non-food products	Other	Medium

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	Medium
Pollution control and detoxification	Water purification/waste treatment or dilution	Low
Hazard reduction	Flood control, flood storage	Low

#### **Cultural Services**

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Picnics, outings, touring	Low
Recreation and tourism	Nature observation and nature-based tourism	Low
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	Medium
Scientific and educational	Long-term monitoring site	Medium

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	Medium

Within the site:	100
0.4-14-414-	1000
Outside the site:	1000

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes O No O Unknown  $\odot$ 

## 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	
iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples	
iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland	

<no data available>

## 4.6 - Ecological processes

<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

lic owners	

Category National/Federal		Within the Ramsar Site	In the surrounding area
	National/Federal government	✓	

#### Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)		<b>✓</b>

#### 5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:

National Parks & Wildlife Service (NPWS), Department of Housing, Local Government and Heritage. Westmeath County Council. Environmental Protection Agency (EPA).

Coillte Teoranta.

Provide the name and/or title of the person or people with responsibility for the wetland:

Maurice Eakin

National Parks and Wildlife Service, Department of Housing, Local Government and Heritage

90 North King Street,

Postal address:

Smithfield, Dublin, Ireland D07 N7CV

E-mail address: maurice.eakin@housing.gov.ie

## 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	High impact	High impact	✓	unknown	<b>₽</b>	unknown

9							
	Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
	Wood and pulp plantations	High impact	High impact	<b>/</b>	No change	<b>/</b>	unknown

## Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Agricultural and forestry effluents	unknown impact	unknown impact	✓	No change	✓	No change

## 5.2.2 - Legal conservation status

Pegional (international) legal designations

rtegional (international) legal designations			
Designation type	Name of area	Online information url	Overlap with Ramsar Site
EU Natura 2000	Glen Lough Special Protection Area. Site Code:004045	https://www.npws.ie/protected-si tes/spa/004045	whole

## Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Lough Iron-Glen Lough	http://datazone.birdlife.org/sit e/factsheet/lough-iron-and-glen- lough- iba-ireland	whole

## 5.2.3 - IUCN protected areas categories (2008)

la Strict Nature Reserve

_	Ib Wilderness Area: protected area managed mainly for wilderness protection
	Il 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

Logar protoction		
Measures	Status	
Legal protection	Implemented	

#### Habitat

Measures	Status
Catchment management initiatives/controls	Implemented
Habitat manipulation/enhancement	Implemented
Hydrology management/restoration	Implemented
Land conversion controls	Implemented

#### Species

Measures	Status
Threatened/rare species	Implemented
management programmes	implemented

#### **Human Activities**

Turran Activites		
Measures	Status	
Regulation/management of recreational activities	Implemented	
Livestock management/exclusion (excluding fisheries)	Implemented	
Harvest controls/poaching enforcement	Implemented	
Regulation/management of wastes	Implemented	

#### Other

The Lough Glen Ramsar site lies within the Glen Lough SPA. Under European and national legislation, Ireland must maintain at favourable conservation status areas designated as Special Protection Areas. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites. Conservation objectives of this site have been set for the SPA; these can be accessed on NPWS.ie. They are in summary:

 The main objective is to maintain or restore the favourable conservation condition of the bird species i.e. Whooper Swan (Cygnus cygnus) for which the SPA has been selected.

Legislation in the Republic of Ireland affords protection to bird species outside of designated sites e.g. all wild bird species are afforded protection by The Wildlife Act 1976.

Waterfowl shooting is under license only, managed by the National Parks & Wildlife Service.

A River Basin District plan details effective measures for improved water management, the site falls within the Shannon International River Basin District (SIRBD).

A Biodiversity Action Plan for County Westmeath which includes Glen Lough has been prepared.

## 5.2.5 - Management planning

Is there a site-specific management plan for the site? No

Has a management effectiveness assessment been undertaken for the

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 opposesses 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:

The site has a bird hide which bird watchers use regularly.

#### 5.2.6 - Planning for restoration

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

#### Further information

The NPWS have commenced woodland planting at Lough Glen Ramsar site.

#### 5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Water regime monitoring	Implemented
Plant species	Implemented
Water quality	Implemented
Birds	Implemented

Glen Lough is routinely surveyed as part of I-WeBS, which provides comprehensive counts of the bird species using the site during the winter months.

Under the Water Framework Directive water quality of the catchment is monitored at regular intervals by the EPA and/or local authority. As a EU Natura 2000 site, it is required under Article 12 and 17 of the EU Birds and Habitats Directives respectively, that the status and trends of the conservation objectives within the site are monitored and reported on every 6 years.

The site is regularly inspected by the National Parks and Wildlife Service Conservation Rangers for the area.

## 6 - Additional material

## 6.1 - Additional reports and documents

#### 6.1.1 - Bibliographical references

Colhoun, K. and Cummins, S. 2013. Birds of conservation concern in Ireland 2014-2019. Irish Birds 9: 523-544.

Kingston, N. (2012) Checklist of protected & rare species in Ireland. Unpublished National Parks & Wildlife Service Report.

Lewis, L. J., Burke, B., Fitzgerald, N., Tierney, T. D. & Kelly, S. (2019) Irish Wetland Bird Survey: Waterbird Status and Distribution 2009/10-2015/16. Irish Wildlife Manuals, No. 106. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland. NPWS (2016) Conservation objectives for Glen Lough SPA [004045]. Generic Version 5.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs. NPWS,

NPWS (2015) Glen Lough SPA Natura 2000 Form. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

NPWS (2014) Site Synopsis for Glen Lough SPA [004045]. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

Natura Impact Report in support of the Appropriate Assessment of Longford County Development Plan 2015-2021. CAAS for Longford County

Biodiversity Action Plan for County Westmeath (2014-2020) (www.westmeathcoco.ie/)

IUCN 2014. IUCN Red List of Threatened Species. Version 2014.2. . Downloaded on June 2017.

Birdwatchlreland.ie

Birdlife.org

http://eunis.eea.europa.eu

http://www.ramsar.org The Irish Wetland Bird Survey (I-WeBS).

#### 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

vi. other published literature

<no data available>

## 6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site



Lough Glen ( NPWS, 03-07



Lough Glen ( NPWS, 03-07-

## 6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 1996-06-07