

National Parks and Wildlife Service

Conservation Objectives Series

Lough Owel SPA 004047



NPWS

An tSeirbhís Páirceanna
Náisiúnta agus Fiadhúlra
National Parks and Wildlife
Service

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Citation:

**NPWS (2025) Conservation Objectives: Lough Owel SPA 004047. Version 1.
National Parks and Wildlife Service, Department of Housing, Local Government
and Heritage.**

**Series Editors: Maria Long and Colin Heaslip
ISSN 2009-4086**

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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| 004047 | Lough Owel SPA |
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|------|-------------------------------|
| A056 | Shoveler <i>Anas clypeata</i> |
|------|-------------------------------|

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|------|-------------------------|
| A125 | Coot <i>Fulica atra</i> |
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|------|----------|
| A999 | Wetlands |
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Please note that this SPA overlaps with Lough Owel SAC (000688). See map 2. The conservation objectives for this site should be used in conjunction with those for the overlapping site as appropriate.

Supporting documents, relevant reports & publications

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

NPWS Documents

Year : 2013
Title : A review of the SPA network of sites in the Republic of Ireland
Author : NPWS
Series : Published Report

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

Year : 2018
Title : Habitat-and species mediated short-and long-term distributional changes in waterbird abundance linked to variation in European winter weather
Author : Pavón-Jordán, D.; Clausen, P.; Dagys, M.; Devos, K.; Encarnação, V.; Fox, A.D.; Frost, T.; et al.
Series : Diversity and Distributions, 1-15

Year : 2019
Title : Report under the Article 12 of the Birds Directive Period 2008-2012
Author : EEA
Series : European Environment Agency. European Topic Centre on Biological Diversity. Pp 1-9

Year : 2022
Title : Irish wetland bird survey: I-WeBS national and site trends report 1994/95 – 2019/20
Author : Kennedy, J.; Burke, B.; Fitzgerald, N.; Kelly, S.B.A.; Walsh, A.J.; Lewis, L.J.
Series : https://birdwatchireland.ie/app/uploads/2022/04/iwebs_trends_report.html

Conservation Objectives for : Lough Owel SPA [004047]

A056 Shoveler *Anas clypeata*

To restore the Favourable conservation condition of Shoveler in Lough Owel 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 Shoveler in Ireland has decreased by 11% from 1994/95 - 2019/20, as monitored via the Irish Wetland Bird Survey (I-WeBS) (Kennedy et al., 2022). In a robust statistical analysis of I-WeBS data, Kennedy et al. (2022) determined that the population of Shoveler that used Lough Owel SPA decreased by 44% between winters 1995/96 - 2019/20. The reported decline is significantly greater than the national population trend. In their analyses, Kennedy et al. (2022) used indices of the total count of a given species across the entire winter period, providing a more comprehensive assessment of change in the population that used the site compared to approaches such as a comparison of 5 year mean peak values |
| 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 |
| 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 | Foraging habitats include a range of wetlands, such as marshes, rivers, flood-waters, lakes, reservoirs, lagoons and estuaries, as well as grasslands. Shoveler are omnivorous and primarily forage at the surface (dabbling or up-ending) but also dive. The species demonstrates a highly specialised filter-feeding behaviour which allows it to consume a wide variety of planktonic prey items, including crustaceans, molluscs, insects, larvae and various plant materials. It can also dabble for these prey items |

| | | | |
|---------------------------------------|---|---|--|
| 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, Shoveler primarily utilise wetlands (see foraging habitats). 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 |
|---------------------------------------|---|---|--|

Conservation Objectives for : Lough Owel SPA [004047]

A125

Coot *Fulica atra*

To restore the Favourable conservation condition of Coot in Lough Owel 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 Coot in Ireland has decreased by 23% from 1994/95 - 2019/20, as monitored via I-WeBS (Kennedy et al., 2022). In a robust statistical analysis of I-WeBS data, Kennedy et al. (2022) determined that the population of Coot that used Lough Owel SPA decreased by 10% between winters 1995/96 - 2019/20. This result is less than the reported national population trend. In their analyses, Kennedy et al. (2022) used indices of the total count of a given species across the entire winter period, providing a more comprehensive assessment of change in the population that used the site compared to approaches such as a comparison of 5 year mean peak values. Population declines are likely linked, at least in part, to distribution shifts driven by climate change (see Pavón-Jordan et al., 2018) |
| 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 |
| 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; plants dominate the diet but it will also take invertebrate and vertebrate prey. It forages primarily in waterbodies, rarely foraging far from them. The species feeds at the surface and sub-surface of waterbodies by up-ending and diving. It prefers shallow, open, slow moving waterbodies with marginal, floating, emergent or bottom vegetation. Foraging habitats utilised by the Coot include rivers, canals, lakes, reservoirs, ponds, lagoons, estuaries, drainage channels and flooded lands. In winter, individuals forage alone or as part of large aggregations |

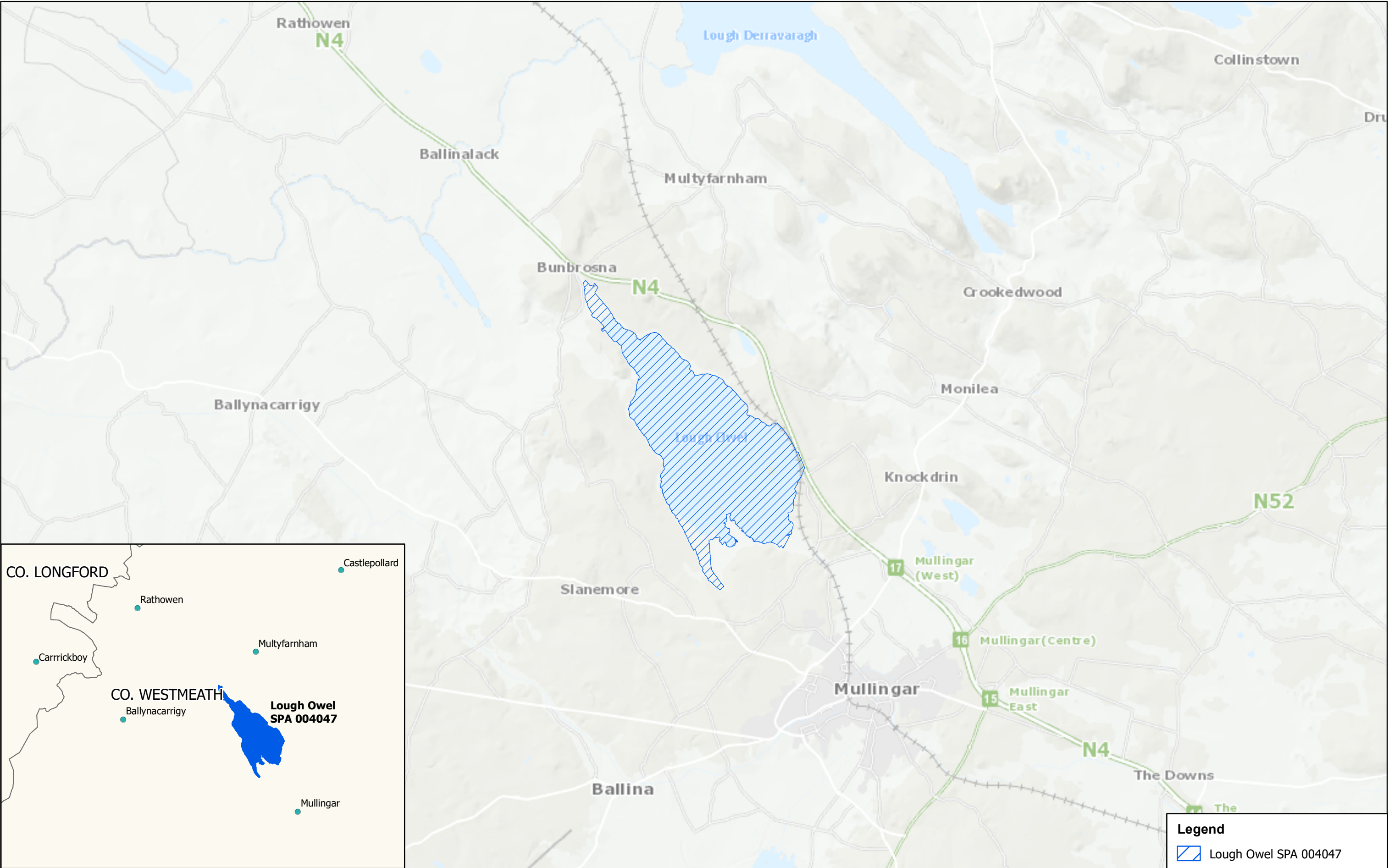
| | | | |
|---------------------------------------|---|---|---|
| Roost spatial distribution and extent | Location and hectares of roosting habitat | Sufficient number of locations, area and availability of suitable roosting habitat to support the population target | Roosting is a critical ecological requirement for the wintering population. When roosting overnight, Coot use a range of waterbodies, as noted for foraging habitat. 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 |
|---------------------------------------|---|---|---|

Conservation Objectives for : Lough Owel SPA [004047]


A999 Wetlands


To maintain the Favourable conservation condition of Wetland habitats in Lough Owel SPA as a resource for the regularly-occurring migratory waterbirds that utilise these areas. This is defined by the following list of attributes and targets:

| Attribute | Measure | Target | Notes |
|---|---|---|--|
| Wetland habitat area | Hectares | No significant loss to wetland habitat within the SPA, other than that occurring from natural patterns of variation | Any significant loss to the wetland habitat within the SPA would likely negatively impact the regularly-occurring migratory waterbirds that utilise this wetland habitat. Such loss of wetland habitat would likely reduce the diversity and abundance of waterbird species that the wetland can support. This, in turn, could negatively impact the Conservation Objectives for waterbird species listed as Special Conservation Interests in the SPA or other regularly-occurring migratory waterbird species |
| Wetland habitat quality and functioning | Quality and function of the wetland habitat | No significant impact on the quality or functioning of the wetland habitat within the SPA, other than that occurring from natural patterns of variation | Any significant impact on the quality, functioning and accessibility of the wetland habitat within the SPA would likely negatively impact the regularly-occurring migratory waterbirds that utilise this wetland habitat. Impacts on wetland quality, functioning and accessibility would likely reduce the diversity and abundance of waterbird species that the wetland can support. This, in turn, could negatively impact the Conservation Objectives for waterbird species listed as Special Conservation Interests in the SPA or other regularly-occurring migratory waterbird species |



Legend

 Lough Owel SPA 004047

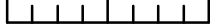
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**MAP 1:
LOUGH OWEL SPA
CONSERVATION OBJECTIVES
SPA DESIGNATION**

Map to be read in conjunction with the NPWS Conservation Objectives Document

**SITE CODE:
SPA 004047; version 3
CO. WESTMEATH**

0 0.5 1 2 Kilometres



The mapped boundaries are of an indicative and general nature only. Boundaries of designated areas are subject to revision.
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arna atáirgeadh faoin rannán mapála Náisiúnta d'uimhir cheadúnais Táilte Éireann CYAL50351092

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**Map version 1
Date: March 2024**

