

# National Parks and Wildlife Service

## *Conservation Objectives Series*

### Rahasane Turlough SPA 004089



An Roinn Tithíochta,  
Rialtais Áitiúil agus Oidhreachta  
Department of Housing,  
Local Government and Heritage

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**Citation:**

**NPWS (2023) Conservation Objectives: Rahasane Turlough SPA 004089. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.**

**Series Editors: Rebecca Jeffrey 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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|--------|---|
| 004089 | Rahasane Turlough SPA   |
| A038   | Whooper Swan <i>Cygnus cygnus</i>                                 |
| A050   | Wigeon <i>Anas penelope</i>                                       |
| A140   | Golden Plover <i>Pluvialis apricaria</i>                          |
| A156   | Black-tailed Godwit <i>Limosa limosa</i>                          |
| A395   | Greenland White-fronted Goose <i>Anser albifrons flavirostris</i> |
| A999   | Wetlands  |

**Please note that this SPA overlaps with Rahasane Turlough SAC (000322). 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](http://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 :** Unpublished report

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**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

### 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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**Year :** 2016  
**Title :** Assessing connectivity with Special Protection Areas (SPAs)  
**Author :** Scottish Natural Heritage  
**Series :** Guidance Series Version 3 - June 2016

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**Year :** 2016  
**Title :** Report of the 2015/16 international census of Greenland white-fronted geese  
**Author :** Fox, T.; Francis, I.; Walsh, A; Norriss, D.  
**Series :** Unpublished Report

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**Year :** 2017  
**Title :** Report of the 2016/17 international census of Greenland white-fronted geese  
**Author :** Fox, T.; Francis, I.; Walsh, A; Norriss, D.  
**Series :** Unpublished report

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**Year :** 2018  
**Title :** A review of Greenland white-fronted geese in Ireland 1982/83 – 2011/12  
**Author :** Burke, B.; Egan, F.; Norriss, D.; Wilson, H.J.  
**Series :** Unpublished report

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**Year :** 2018  
**Title :** Report of the 2017/18 international census of Greenland white-fronted geese  
**Author :** Fox, T.; Francis, I.; Walsh, A; Norriss, D.  
**Series :** Unpublished report

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**Year :** 2019  
**Title :** Annex B – Bird species' status and trends report format (Article 12) for the period 2013 – 2018  
**Author :** NPWS  
**Series :** Birds Directive - Article 12 Reporting

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**Year :** 2019  
**Title :** Report of the 2018/19 international census of Greenland white-fronted geese  
**Author :** Fox, T.; Francis, I.; Walsh, A; Norriss, D.  
**Series :** Unpublished report

**Year :** 2020  
**Title :** Report of the 2019/20 international census of Greenland white-fronted geese  
**Author :** Fox, T.; Francis, I.; Walsh, A.; Norriss, D.  
**Series :** Unpublished report

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**Year :** 2021  
**Title :** Population size, breeding success and habitat use of whooper swan *Cygnus cygnus* and Bewick's Swan *Cygnus columbianus bewickii* in Ireland: results of the 2020 international swan census  
**Author :** Burke, B.; McElwaine, J.G.; Fitzgerald, N.; Kelly, S.B.A.; McCulloch, N.; Walsh, A.J.; Lewis, L.J.  
**Series :** Irish Birds 43:57-70

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**Year :** 2022  
**Title :** Irish Wetland Bird Survey (I-WeBS)  
**Author :** Birdwatch Ireland  
**Series :** Irish wetland bird survey (I-WeBS) monitoring programme

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**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](https://birdwatchireland.ie/app/uploads/2022/04/iwebs_trends_report.html)

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**A038 Whooper Swan *Cygnus cygnus***

**To restore the favourable conservation condition of whooper swan in Rahasane Turlough SPA, which is defined by the following list of attributes and targets:**

| <b>Attribute</b>                      | <b>Measure</b>                             | <b>Target</b>   | <b>Notes</b>   |
|---------------------------------------|--|---|--|
| Winter population trend               | Percentage change in number of individuals | Long term winter population trend is stable or increasing   | The national population of whooper swan over-wintering in Ireland has increased in the long term, with a 40% population increase from 1991 to 2015 (Lewis et al., 2019). During the baseline assessments to inform SPA designation, 165 whooper swans were estimated to be using this SPA (5 year mean of peak counts for baseline period 1995/96 to 1999/2000; see NPWS, 2013). A population of 79 whooper swans was estimated to be using the SPA from 2015/16 to 2019/20 (5 year mean of peak counts from I-WeBS monitoring; I-WeBS, 2022). This represents a population decrease of 52% since the baseline period, which is contrary to the increasing national population 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  | The intensity, frequency, timing and duration of 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 over-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 over-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       | The number, location, shape and area of 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 and 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 over-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 is primarily permanent waterbodies, such as rivers, lakes, turloughs, lagoons and other open waterbodies. 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  |



**A050 Wigeon *Anas penelope***

**To maintain the favourable conservation condition of wigeon in Rahasane Turlough SPA, which is defined by the following list of attributes and targets:**

| <b>Attribute</b>                                  | <b>Measure</b>                             | <b>Target</b>   | <b>Notes</b>  |
|---|--|---|---|
| Winter population trend                           | Percentage change in number of individuals | Long term winter population trend is stable or increasing   | The national population of over-wintering wigeon in Ireland has declined by 18% from 1994/95 to 2019/20, as monitored via the Irish Wetland Bird Survey (I-WeBS; Kennedy et al., 2022). During the baseline assessments to inform SPA designation, 3,430 wigeon were estimated to be using this SPA (5 year mean of peak counts for baseline period 1995/96 to 1999/2000; see NPWS, 2013). A population of 3,650 wigeon was estimated to be using the SPA in recent years (5 year mean of peak counts from I-WeBS monitoring for periods 2015/16 to 2019/20; I-WeBS, 2022). This represents a stable or perhaps slightly increasing population trend (of 6%) since the baseline period, which is contrary to the recorded decrease in the national population 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  | The intensity, frequency, timing and duration of 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 over-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 over-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       | The number, location, shape and area of 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 and hectares, and forage biomass  | Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target  | This dabbling duck feeds primarily on aquatic vegetation, at surface level in waterbodies or at ground level in wetland habitats. Key forage materials include leaves, stems, stolons, roots, rhizomes, and seeds (including cereals). Key over-wintering habitats are marshes, lagoons, estuaries, coastal bays, lakes, rivers and river floodplains, turloughs and other wetland habitats, as well as pastures  |

|                                       |   |   |  |
|---------------------------------------|---|---|--|
| 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 | Wigeon rely primarily on wetlands or waterbodies for roosting. Roosting is a critical ecological requirement for the over-wintering population. When roosting overnight, this species typically utilises a similar range of habitats as noted for foraging. 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  |

## Conservation Objectives for : Rahasane Turlough SPA [004089]

### A140 Golden Plover *Pluvialis apricaria*

To restore the favourable conservation condition of golden plover in Rahasane Turlough 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 over-wintering golden plover in Ireland has declined by 54% from 1994/95 to 2019/20, as monitored via the Irish Wetland Bird Survey (I-WeBS; Kennedy et al., 2022). During the baseline assessments to inform SPA designation, 6,613 golden plover were estimated to be using this SPA (5 year mean of peak counts for baseline period 1995/96 to 1999/2000; see NPWS, 2013). A population of 3,220 golden plover was estimated to be using the SPA in recent years (5 year mean of peak counts from I-WeBS monitoring for periods 2015/16 to 2019/20; I-WeBS, 2022). This represents a population decline of 51% since the baseline period, which is in line with the recorded decrease in the national population 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  | The intensity, frequency, timing and duration of 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 over-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 over-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       | The number, location, shape and area of 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 and hectares, and forage biomass | Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target | This species forages exclusively at ground level and relies primarily on surface and sub-surface dwelling invertebrate prey, consuming a wide variety of prey items. The species is reliant on open habitats, including a wide range of wetland habitats such as the edges of lakes, turloughs, river floodplains, lagoons, estuaries, intertidal flats and other wetlands, as well as grasslands (wet grassland, semi-improved and improved grasslands), stubble fields and ploughed farmlands. While golden plover primarily forage diurnally, the species is also known to feed nocturnally on clear and moonlit nights   |
| 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    | Golden plover roost exclusively at ground level. Roosting is a critical ecological requirement for the over-wintering population. When roosting overnight, this species typically utilises a similar range of habitats as noted for foraging. 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  |

## Conservation Objectives for : Rahasane Turlough SPA [004089]

### A156 Black-tailed Godwit *Limosa limosa*

To maintain the favourable conservation condition of black-tailed godwit in Rahasane Turlough 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 over-wintering black-tailed godwit in Ireland has increased by 92% from 1994/95 to 2019/20, as monitored via the Irish Wetland Bird Survey (I-WeBS; Kennedy et al., 2022). During the baseline assessments to inform SPA designation, 437 black-tailed godwit were estimated to be using this SPA (5 year mean of peak counts for baseline period 1995/96 to 1999/2000; see NPWS, 2013). A population of 1,283 black-tailed godwit was estimated to be using the SPA in recent years (5 year mean of peak counts from I-WeBS monitoring for periods 2015/16 to 2019/20; I-WeBS, 2022). This represents an estimated population increase of 194% since the baseline period, which is similar to the increasing 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  | The intensity, frequency, timing and duration of 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 over-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 over-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       | The number, location, shape and area of 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 and hectares, and forage biomass | Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target | This species forages exclusively at ground level and avoids tall, dense vegetation and water deeper than it can stand in. The species relies primarily on surface and sub-surface dwelling invertebrate prey, but also consumes plant materials (e.g. cereal grain). This species consumes a wide variety of invertebrate prey, including polychaete worms, molluscs, crabs, amphipods and larvae (e.g. of <i>Tipulidae</i> ). The species is reliant on open habitats, including a wide range of wetland habitats, such as marshes, the shores of lakes and turloughs, river floodplains, lagoons, intertidal estuarine flats (preferring mud flats) and other coastal wetlands, as well as grasslands (wet grassland, semi-improved and improved grasslands)                             |
| 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    | This species roosts exclusively at ground level. Roosting is a critical ecological requirement for the over-wintering population. When roosting overnight, this species typically utilises a similar range of habitats as noted for foraging. 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 to the resilience of the SPA population. Suitable supporting habitats include those highlighted in the Notes for foraging habitat and roosting habitat  |

## Conservation Objectives for : Rahasane Turlough SPA [004089]

### A395 Greenland White-fronted Goose *Anser albifrons flavirostris*

To restore the favourable conservation condition of Greenland White-fronted goose in Rahasane Turlough 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, monitored annually by NPWS, has declined by circa 13% between 1985 and 2018 (NPWS, 2019). It is understood that a single flock of Greenland white-fronted goose uses both the Rahasane Turlough and Cregganna Marsh SPAs (see Burke et al., 2018). During the baseline assessments to inform SPA designation, a flock of 157 geese were estimated to be using the Rahasane Turlough and Cregganna Marsh SPAs (5 year mean of peak counts for baseline period 1994/95 to 1998/99; see NPWS, 2013). This flock declined to 73 geese in recent years (5 year mean of peak counts from NPWS monitoring for period 2015/16 to 2019/20; see Fox et al., 2016-2020). This represents a population decline of 54% since the baseline period. This corresponds to a report by Burke et al. (2018) that reported a long term decline in the Rahasane Turlough and Cregganna Marsh population from the late 1990s to winter 2011/12 |
| 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  | The intensity, frequency, timing and duration of 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 over-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 over-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       | The number, location, shape and area of 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  |

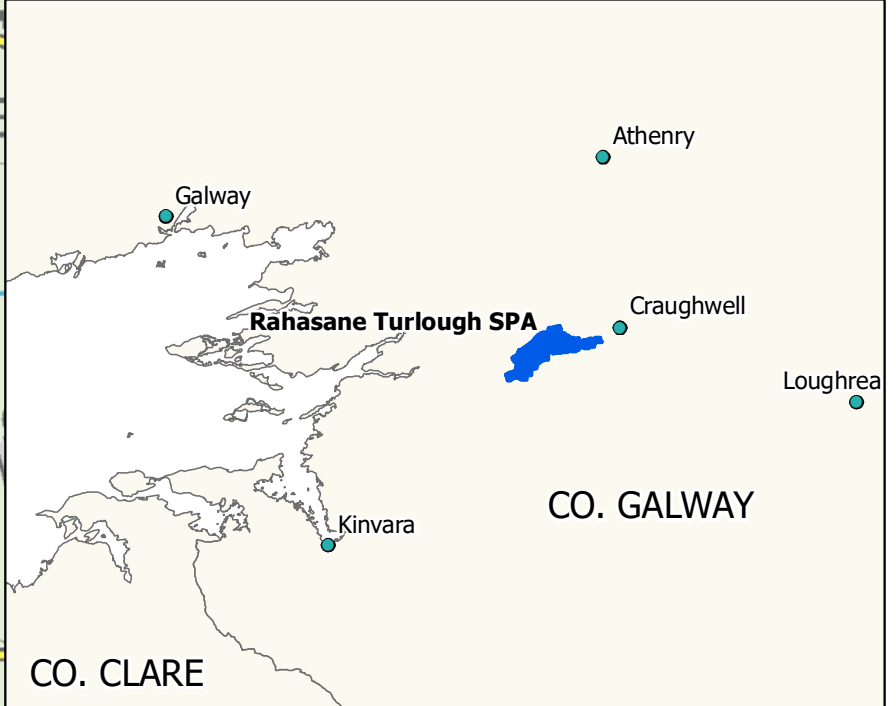
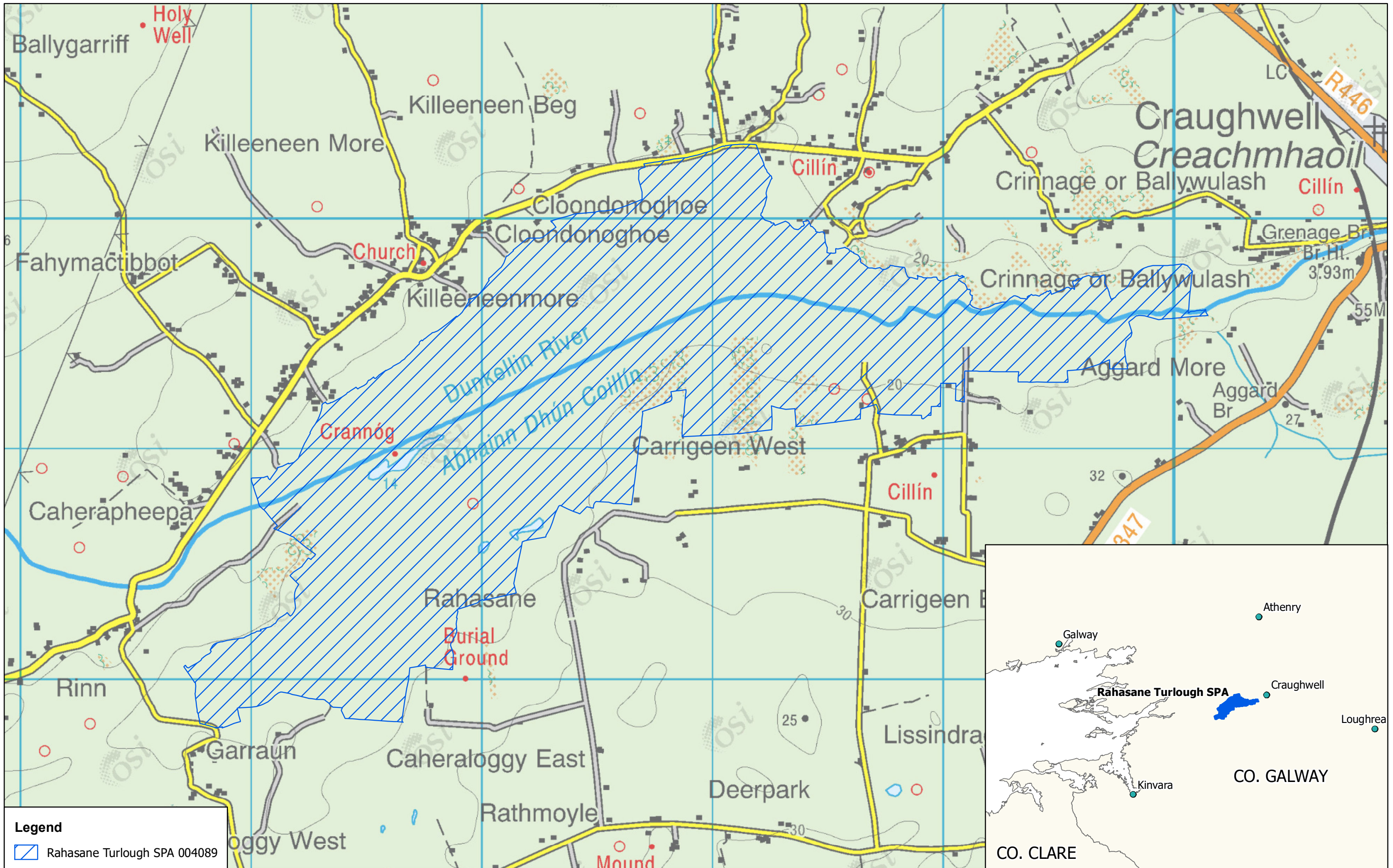
|   |   |  |  |
|---|---|--|--|
| Forage spatial distribution, extent and abundance | Location and hectares, and forage biomass | Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target | This species is a grazer, feeding on a wide range 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 over-wintering Greenland white-fronted goose from night roosts is estimated at 5 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  |



**A999 Wetlands**

**To maintain the favourable conservation condition of wetlands in Rahasane Turlough SPA, which is defined by the following list of attributes and targets:**

| <b>Attribute</b>                        | <b>Measure</b>                              | <b>Target</b>   | <b>Notes</b>   |
|---|---|---|--|
| 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**  
 RAHASANE Turlough SPA 004089

**An Roinn Tithíochta, Rialtais Áitiúil agus Oidhreacht**  
 Department of Housing, Local Government and Heritage

**MAP 1: RAHASANE TURLOUGH SPA CONSERVATION OBJECTIVES SPA DESIGNATION**  
 Map to be read in conjunction with the NPWS Conservation Objectives Document

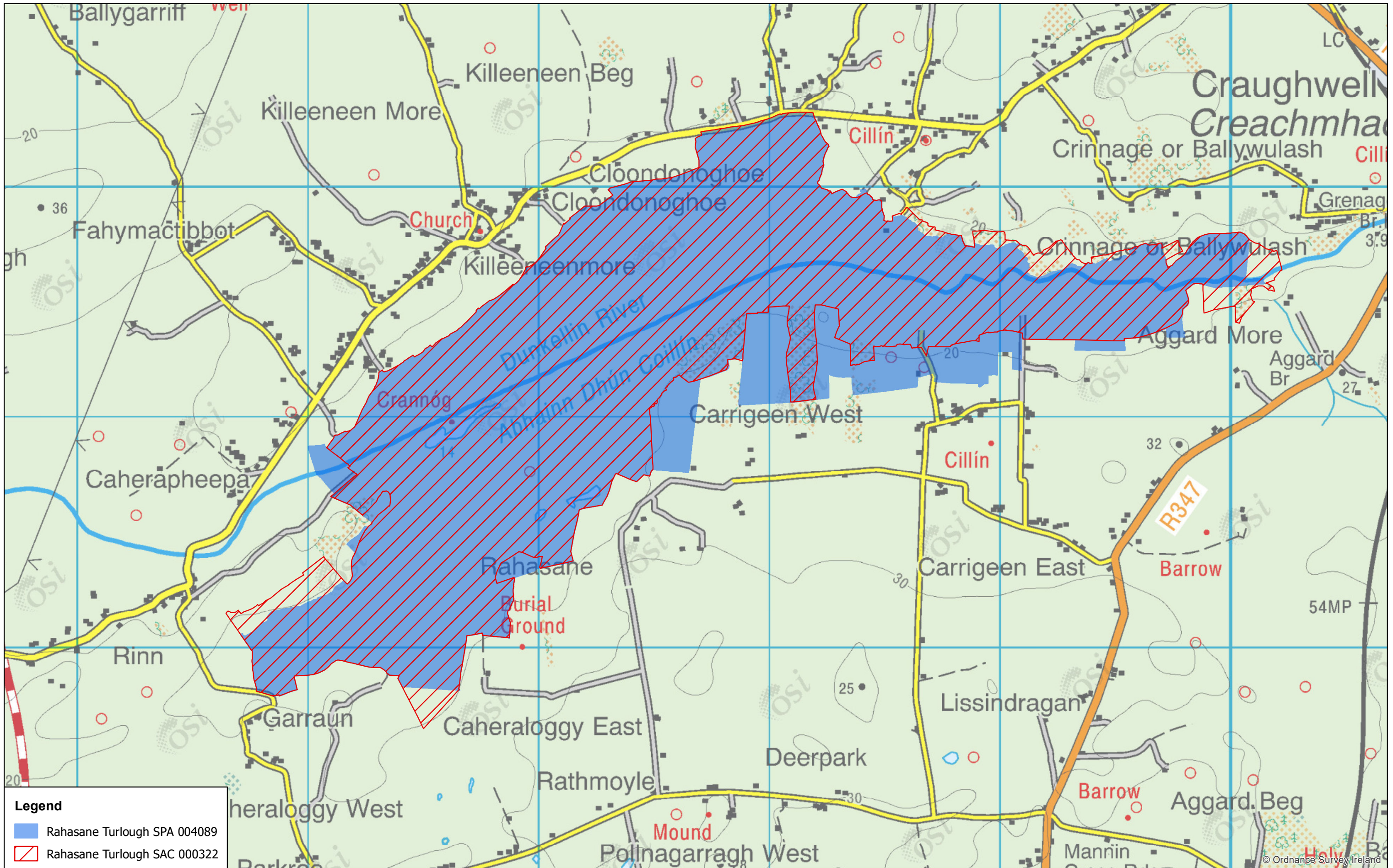
**SITE CODE: SPA 004089; version 3 CO GALWAY**

0 125 250 500 Metres

The mapped boundaries are of an indicative and general nature only. Boundaries of designated areas are subject to revision.  
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Níl sna teorainneacha ar na léarscáileanna ach nod garshuíomhach ginearálta. Féadfar athbheithnithe a déanamh ar theorainneacha na gceantar comharthaith. Suirbhéarachtá Ordonáis na hÉireann Ceadúnas Uimh OSI-NMA-014. © Suirbhéarachtá Ordonáis na hÉireann Rialtas na hÉireann

**Map version 1**  
 Date: January 2023



**Legend**

- Rahasane Turlough SPA 004089
- Rahasane Turlough SAC 000322

An Roinn Tithíochta,  
Rialtais Áitiúil agus Oidhreachta  
Department of Housing,  
Local Government and Heritage

**MAP 2:  
RAHASANE TURLOUGH SPA  
CONSERVATION OBJECTIVES  
OVERLAPPING SITE**

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

**SITE CODE:  
SPA 004089; version 3  
CO GALWAY**

0 125 250 500 Metres

The mapped boundaries are of an indicative and general nature only. Boundaries of designated areas are subject to revision.  
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Níl sna teorainneacha ar na léarscáileanna ach nod garshuíomhach ginearálta. Féadfar athbheithnithe a déanamh ar theorainneacha na gceantar comharthaith. Suirbhéarachta Ordoínáis na hÉireann Ceadúnas Uimh OSI-NMA-014. © Suirbhéarachta Ordoínáis na hÉireann Rialtas na hÉireann

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Map version 1  
Date: January 2023