

National Parks and Wildlife Service

Conservation Objectives Series

Aughrusbeg Machair and Lake SAC 001228



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

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Citation:

**NPWS (2021) Conservation Objectives: Aughrusbeg Machair and Lake SAC
001228. Version 1. National Parks and Wildlife Service, Department of Housing,
Local Government and Heritage.**

**Series Editors: Rebecca Jeffrey and Christina Campbell
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*

001228	Aughrusbeg Machair and Lake SAC
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoëto-Nanojuncetea
4010	Northern Atlantic wet heaths with <i>Erica tetralix</i>

Please note that this SAC is adjacent to West Connacht Coast SAC (002998). See map 2. The conservation objectives for this site should be used in conjunction with those for the adjacent site as appropriate.

Supporting documents, relevant reports & publications

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

NPWS Documents

Year :	2009
Title :	Ireland Red List No. 2: Non-marine molluscs
Author :	Byrne, A.; Moorkens, E.A.; Anderson, R.; Killeen, I.J.; Regan, E.C.
Series :	Ireland Red List series, NPWS
Year :	2010
Title :	Ireland Red List No. 4: Butterflies
Author :	Regan, E.C.; Nelson, B.; Aldwell, B.; Bertrand, C.; Bond, K.; Harding, J.; Nash, D.; Nixon, D.; Wilson, C.J.
Series :	Ireland Red List series, NPWS
Year :	2012
Title :	Ireland Red List No. 8: Bryophytes
Author :	Lockhart, N.; Hodgetts, N.; Holyoak, D.
Series :	Ireland Red List series, NPWS
Year :	2013
Title :	The status of EU protected habitats and species in Ireland. Volume 2. Habitats assessments
Author :	NPWS
Series :	Conservation assessments
Year :	2014
Title :	Guidelines for a national survey and conservation assessment of upland vegetation and habitats in Ireland, Version 2.0
Author :	Perrin, P.M.; Barron, S.J.; Roche, J.R.; O'Hanrahan, B.
Series :	Irish Wildlife Manuals, No. 79
Year :	2015
Title :	Habitats Directive Annex I lake habitats: a working interpretation for the purposes of site-specific conservation objectives and Article 17 reporting
Author :	O Connor, Á.
Series :	Unpublished document by NPWS
Year :	2016
Title :	Ireland Red List No. 10: Vascular Plants
Author :	Wyse Jackson, M.; FitzPatrick, Ú.; Cole, E.; Jebb, M.; McFerran, D.; Sheehy Skeffington, M.; Wright, M.
Series :	Ireland Red Lists series, NPWS
Year :	2019
Title :	The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitat Assessments
Author :	NPWS
Series :	Conservation assessments
Year :	in prep.
Title :	A study of lakes with Slender Naiad (<i>Najas flexilis</i>)
Author :	Roden, C.; Murphy, P.; Ryan, J.B.
Series :	Irish Wildlife Manuals

Other References

Year :	1983
Title :	Flora of Connemara and the Burren
Author :	Webb, D.A.; Scannell, M.J.P.
Series :	Royal Dublin Society, Dublin and Cambridge University Press, Cambridge
Year :	1999
Title :	A survey of Irish machair loughs
Author :	Roden, C.
Series :	Report to the National Heritage Council, Kilkenny
Year :	2009
Title :	Common Standards Monitoring guidance for upland habitats
Author :	JNCC
Series :	Joint Nature Conservation Committee, Peterborough
Year :	2013
Title :	Interpretation manual of European Union habitats- Eur 28
Author :	European Commission- DG Environment
Series :	European Commission
Year :	2016
Title :	A narrative for conserving freshwater and wetland habitats in England
Author :	Mainstone, C.; Hall, R.; Diack, I.
Series :	Natural England Research Reports Number 064
Year :	2017
Title :	Irish Vegetation Classification: Technical Progress Report No. 3
Author :	Perrin, P.
Series :	Report submitted to National Biodiversity Data Centre

Spatial data sources

Year :	2021
Title :	OSi Prime 2 water polygon file
GIS Operations :	WaterPolygons feature class clipped to the SAC boundary. Expert opinion used to identify Annex I habitat and to resolve any issues arising
Used For :	3130 (map 3)

Conservation Objectives for : Aughrusbeg Machair and Lake SAC [001228]

3130 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoëto-Nanojuncetea

To maintain the favourable conservation condition of Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea in the Aughrusbeg Machair and Lake SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Habitat area	Hectares	Area stable or increasing, subject to natural processes	Lake habitat 3130 is found in Aughrusbeg Lough. This habitat occurs in clear-water lakes of intermediate alkalinity where <i>Isoetes lacustris</i> and <i>Potamogeton perfoliatus/praelongus</i> co-occur and is characterised by high species richness and a deep-water flora that can include slender naiad (<i>Najas flexilis</i>) (Roden et al., in prep.). Aughrusbeg was assessed as in good conservation condition in 2017 (Roden et al., in prep.). Habitat 3130 was in poor deteriorating conservation status across Ireland in the two reporting periods 2007-2018 (NPWS, 2013, 2019). The majority of lakes with 3130 appear to be damaged, and high conservation value 3130 lakes in good condition are extremely rare (Roden et al., in prep.). The lake surface area is the simplest measure of extent and should be stable or increasing. See map 3. For further information on all attributes and an overview of slender naiad-type lakes see Roden et al. (in prep.). See also O Connor (2015)
Habitat distribution	Occurrence	No decline, subject to natural processes	Aughrusbeg is a coastal lake with exceptional water clarity and a diverse flora typical of habitat 3130 but lacking <i>Najas flexilis</i> (Roden et al., in prep.). Habitat 3130 was surveyed in Aughrusbeg in 2017 (Roden et al., in prep.). Other surveys have included Webb and Scannell (1983) and Roden (1999). Further data are also available from the Environmental Protection Agency (EPA) (Water Framework Directive (WFD) monitoring)
Vegetation species richness	Occurrence	Maintain appropriate species richness	A total of 30 aquatic taxa was recorded from Aughrusbeg in 2017, including eight <i>Potamogeton</i> spp. and hybrids, <i>Nitella translucens</i> , <i>N. confervacea</i> , <i>Tolypella glomerata</i> and <i>Chara muscosa</i> (Roden et al., in prep.). There should be no decline in species richness (see Roden et al., in prep.). Roden et al. (in prep.) found that lake habitat 3130 has a varied and species-rich flora, with high conservation value examples having more than 30 species of aquatic macrophytes. Almost all lakes with more than 30 species had euphotic depth >3m (Roden et al., in prep.). The number of species recorded increases with sampling effort (Roden et al., in prep.)
Vegetation composition: typical species	Occurrence	Maintain typical species, in good condition, and demonstrating typical abundances and distribution	Maintain condition and extent of typical species, including <i>Potamogeton filiformis</i> , other <i>Potamogeton</i> spp., <i>Isoetes lacustris</i> , <i>Nitella translucens</i> , <i>N. confervacea</i> , <i>Chara muscosa</i> , other charophytes, etc. Note that <i>Najas flexilis</i> does not occur in Aughrusbeg (Roden et al., in prep.). Roden et al. (in prep.) described the typical species of lake habitat 3130 and those present in lakes in good condition. This habitat has a varied and species-rich flora with several rare species that can include <i>Baldellia ranunculoides</i> subsp. <i>repens</i> , <i>Hydrilla verticillata</i> , <i>Isoetes echinospora</i> , <i>Najas flexilis</i> , <i>Pilularia globulifera</i> , <i>Fissidens fontanus</i> , and also two uncertain charophyte taxa: <i>Chara muscosa</i> ; <i>Nitella spanioclema</i> . See also the Article 17 habitat assessments for 3130 (NPWS, 2013, 2019) and the lake habitats supporting document (O Connor, 2015)

Vegetation composition: characteristic zonation	Occurrence	Maintain characteristic deep-water vegetation	The western sand-shelf at Aughrusbeg had dwarf vegetation of charophytes and <i>Potamogeton filiformis</i> , with other pondweeds and <i>Myriophyllum spicatum</i> in deeper water (Roden et al., in prep.). On rocky shores <i>Littorella</i> dominated followed by <i>Isoetes lacustris</i> and <i>Chara aspera</i> at 1-2.5m. The deep-water zone had <i>Nitella translucens</i> , <i>Fontinalis antipyretica</i> , <i>N. confervacea</i> and pondweeds. Roden et al. (in prep.) described the characteristic zonation (≥ 3 zones): a shallow water <i>Lobelia-Littorella</i> zone (0-1.5m); an <i>I. lacustris</i> zone (0.5-3m), both typical of oligotrophic lakes; a deep-water community of some/all of <i>Callitriche hermaphrodita</i> , <i>Hydrilla verticillata</i> , <i>Najas flexilis</i> , <i>P. berchtoldii</i> , <i>P. perfoliatus</i> , <i>P. pusillus</i> , <i>Nitella flexilis</i> , <i>N. confervacea</i> , <i>N. translucens</i> , the most sensitive element. Full development is when a distinct deep-water zone is present with ≥ 1 of its typical species having $>25\%$ cover
Vegetation distribution: maximum (euphotic) depth	Metres	Maintain maximum depth of vegetation, subject to natural processes	Maximum depth of vegetation or euphotic depth was 5.2m in Aughrusbeg in 2017, the deepest of any lake surveyed 2016-2018 (range 1.9-5.2m) (Roden et al., in prep.). The target for maximum depth of vegetation colonisation (euphotic depth) in 3130 lakes was set as at least >3 m (Roden et al., in prep.). Site-specific conditions must be considered, however, and the target for Aughrusbeg is set at >5 m. Maximum depth is considered to have declined in many lakes, owing to increased water colour. Lakes within undisturbed peatland are expected to have clear water and large maximum vegetation depth
Hydrological regime: water level fluctuations	Metres	Maintain appropriate hydrological regime necessary to support the habitat	Roden et al. (in prep.) found that, in summer, the <i>Littorella</i> zone is typically submerged, and stated that if more than half is exposed it is a matter of concern and water level should never be lower than the top of the <i>Isoetes</i> zone. Fluctuations in lake water level are typical in Ireland, but can be amplified by activities such as abstraction, drainage and overgrazing. Increased water level fluctuations can increase wave action, up-root vegetation, increase turbidity, alter the substratum and lead to release of nutrients from the sediment. Groundwater inputs are likely to be important for the characteristic deep-water zone. The hydrological regime of the lake must be maintained so that the area, distribution and depth of the lake habitat and its constituent/characteristic vegetation zones and communities are not reduced
Lake substratum quality	Various	Maintain appropriate substratum type, extent and chemistry to support the vegetation	Aughrusbeg has a complex morphology, with a large deposit of wind-blown sand to the west, forming a shallow shelf bordered by an abrupt drop of 4-6m, and the rest of the lake bed has rock, cobbles or boulders (Roden et al., in prep.). Roden et al. (in prep.) found that the habitat is generally dominated by bedrock, sand and loose stones, silt mud or hard peat, and stated that the appearance of large expanses of unconsolidated peat would indicate excessive sediment input. Groundwater inputs may be important for the substratum of the characteristic deep-water zone. Research is required to further characterise the chemical composition of the substratum

pH and Alkalinity	pH units, mg/l	Maintain appropriate water and sediment pH, alkalinity and cation concentrations to support the habitat, subject to natural processes	Roden et al. (in prep.) reported average alkalinity of 49.1mg/l at Aughrusbeg and pH of 7.8. The habitat is associated with intermediate alkalinity, largely between 20-80mg/l, but lower values may occur on Old Red Sandstone (Roden et al., in prep.). Surveyed lakes had average alkalinity of 25mg/l (range 5.5-73mg/l) (Roden et al., in prep.). In line with targets for <i>Najas flexilis</i> , median pH values should be greater than 7 pH units. Groundwater may influence sediment and water chemistry and be important for <i>Najas flexilis</i> and other characteristic flora, contributing base-poor water to obligate carbon dioxide photosynthesisers in more calcareous lakes and more base-rich water to highly oligotrophic lakes. Acidification by organic acids released from degraded peatland and conifer plantations may impact on the habitat. See also The European Communities Environmental Objectives (Surface Waters) (Amendment) Regulations 2019
Nutrients	mg/l P; mg/l N	Maintain/restore the concentration of nutrients in the water column to sufficiently low levels to support the habitat and its typical species	Roden et al. (in prep.) reported average total phosphorus (TP) of 0.015mg/l based on EPA 2008-15 data. EPA average TP was 0.011mg/l for 2013-15. Roden et al. (in prep.) found that the best quality lakes surveyed had average total phosphorus of <0.015mg/l TP. Lakes in good condition with high-frequency nutrient data had an overall average of 0.011mg/l TP (lake averages ranged 0.008-0.015mg/l TP). While Roden et al. (in prep.) suggested a target of <0.015mg/l TP, a precautionary target for good condition is set as ≤0.010mg/l or WFD High Status; however, vegetation attributes determine the overall conservation condition. See also The European Communities Environmental Objectives (Surface Waters) (Amendment) Regulations 2019. WFD High Status targets for total ammonia (annual average ≤0.04mg/l N and annual 95th percentile ≤0.09mg/l N) may also be appropriate
Water colour	mg/l PtCo	Maintain appropriate water colour to support the habitat	The water in Aughrusbeg is very clear with colour of 27 Hazen Units (Roden et al., in prep.). The habitat is found in clear water, and water colour (dissolved light-absorbing compounds) is negatively correlated with maximum vegetation (euphotic) depth; lakes with euphotic depth >3m had colour <40mg/l PtCo, while those with euphotic depth >3.5m had <35mg/l PtCo (Roden et al., in prep.). Water colour directly controls light penetration and, therefore, euphotic depth and vegetation extent. Roden et al. (in prep.) set good condition at <40mg/l PtCo; however, this was considered to be an impacted state some distance from reference condition. The primary source of increased colour in Ireland is peatland disturbance, e.g. through turf-cutting, overgrazing, plantation forestry. Further work is necessary to determine water colour in intact peatland catchments and sustainable levels for the habitat, which may be <30 or even <20mg/l PtCo
Dissolved organic carbon (DOC)	mg/l	Maintain appropriate organic carbon levels to support the habitat	Dissolved organic carbon (DOC) in the water column is linked to water colour and acidification (organic acids). It can provide a substrate (food source) for heterotrophic organisms, which can impact directly (e.g. shading) and indirectly (e.g. nutrient release) on the characteristic lake communities. Damage and degradation of peatland, e.g. through afforestation or turf-cutting, leading to decomposition of peat is likely to be the predominant source of dissolved and particulate organic carbon in Ireland

Turbidity	Nephelometric turbidity units/ mg/l SS/ other appropriate unit	Maintain appropriate turbidity to support the habitat	Turbidity can significantly affect the quantity and quality of light reaching rooted and attached vegetation and can, therefore, impact on lake habitats. The settlement of higher loads of inorganic or organic material on lake vegetation communities may also have impacts on sensitive, delicate species. Turbidity can increase as a result of re-suspension of material within the lake, higher loads entering the lake, or eutrophication. Particulate loads from peatlands are the most likely sources of increased turbidity in lakes with the habitat. Turbidity measurement and interpretation is challenging. As a result, it is likely to be difficult to set habitat-specific targets for turbidity in lakes
Transparency	Metres	Maintain appropriate Secchi transparency. There should be no decline in Secchi depth/transparency	The water in Aughrusbeg is very clear and Secchi depth was 2.5m (Roden et al., in prep.). Transparency relates to light penetration and, hence, to the depth of colonisation of vegetation. Roden et al. (in prep.) advised it is preferable to measure euphotic depth directly by observation, but noted that a decreasing trend in Secchi depth indicates declining water quality. Transparency can be affected by phytoplankton blooms, water colour and turbidity. Secchi depth in marl lakes in good condition is generally >6m. The OECD fixed boundary system set transparency targets for oligotrophic lakes of ≥ 6 m annual mean Secchi disk depth and ≥ 3 m annual minimum Secchi disk depth
Attached algal biomass	Algal cover	Maintain trace/absent attached algal biomass (<5% cover)	Natural algal blooms may occur at Aughrusbeg owing to maritime influence (Roden et al., in prep.). <i>Aegagropila linnaei</i> (<i>Cladophora aegagropila</i>) balls were found in the deep water (Roden, 1999). Nutrient enrichment can favour epiphytic and epipelic algae that can out-compete the submerged vegetation. Roden et al. (in prep.) noted that occasional blooms of filamentous algae occur in 3130 lakes in the absence of excess nutrients, especially species of the orders Zygnematales or Oedogoniales, but that drifting masses of <i>Cladophora</i> species may indicate a decline in water quality. In general, the cover abundance of attached algae in lakes with 3130 should be trace/absent (<5% cover)
Fringing habitat: area and condition	Hectares	Maintain the area and condition of fringing habitats necessary to support the natural structure and functioning of habitat 3130	Aughrusbeg is surrounded by wet heath, intermixed with dry heath and rock outcrops, and with machair to the west. Heterogeneous lake fringes with a range of natural and semi-natural habitats are preferable. Restoration or maintenance of open, species-rich fen, marsh and grassland can be particularly important. Fringing habitats along lakes intergrade with and support the structure and functions of the lake habitat. Equally, fringing wetland habitats are dependent on the lake, particularly its water levels, and support invertebrate and plant communities and species of high diversity and conservation concern. See also Mainstone et al. (2016)

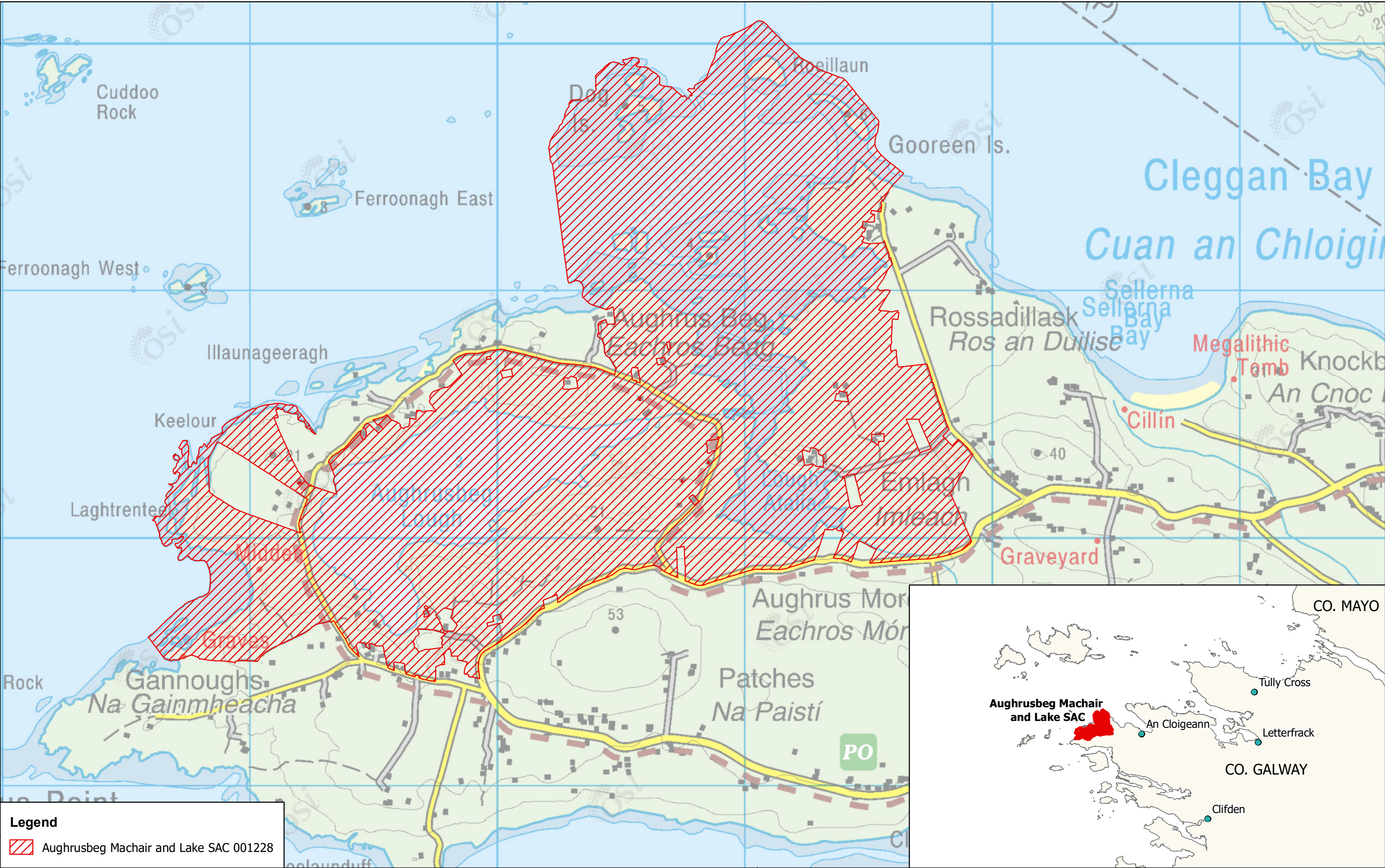
Conservation Objectives for : Aughrusbeg Machair and Lake SAC [001228]

4010 Northern Atlantic wet heaths with *Erica tetralix*


To maintain the favourable conservation condition of Northern Atlantic wet heaths with *Erica tetralix* in Aughrusbeg Machair and Lake SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Habitat area	Habitat area	Area stable or increasing, subject to natural processes	Northern Atlantic wet heaths with <i>Erica tetralix</i> has not been mapped in detail for Aughrusbeg Machair and Lake SAC and thus the exact total area of the qualifying habitat in the SAC is currently unknown. It has been documented that good quality wet heath surrounds the northern, southern and eastern sides of Aughrusbeg Lake, intermixed with areas of dry heath associated with rock outcrops (NPWS internal files)
Habitat distribution	Occurrence	No decline, subject to natural processes	See the notes on habitat area above
Ecosystem function: soil nutrients	Soil pH and appropriate nutrient levels at a representative number of monitoring stops	Maintain soil pH and nutrient status within natural ranges	Relevant nutrients and their natural ranges are yet to be defined. However, nitrogen deposition is noted as being relevant to this habitat (NPWS, 2019)
Community diversity	Abundance of variety of vegetation communities	Maintain variety of vegetation communities, subject to natural processes	The entire diversity of wet heath vegetation communities within this SAC is unknown. Further information on vegetation communities associated with this habitat in the uplands is presented in Perrin et al. (2014). See also the Irish Vegetation Classification (Perrin, 2017; www.biodiversityireland.ie/projects/ivc-classification-explorer/)
Vegetation composition: cross-leaved heath	Occurrence within 20m of a representative number of monitoring stops	Cross-leaved heath (<i>Erica tetralix</i>) present within a 20m radius of each monitoring stop	Attribute and target based on Perrin et al. (2014). Cross-leaved heath is the only characteristic species of the habitat listed in European Commission (2013). Whilst it is seldom abundant in wet heaths, its presence at high frequencies is considered one of the few characteristics common between the varied communities of this habitat (JNCC, 2009)
Vegetation composition: positive indicator species	Percentage cover at a representative number of 2m x 2m monitoring stops	Cover of positive indicator species at least 50%	Attribute and target based on Perrin et al. (2014), where the list of positive indicator species for this habitat is also presented. Positive indicator species recorded in the habitat in the SAC include glaucous sedge (<i>Carex flacca</i>), bog asphodel (<i>Narthecium ossifragum</i>), round-leaved sundew (<i>Drosera rotundifolia</i>) and tormentil (<i>Potentilla erecta</i>) (NPWS internal files)
Vegetation composition: lichens and bryophytes	Percentage cover at a representative number of 2m x 2m monitoring stops	Total cover of <i>Cladonia</i> and <i>Sphagnum</i> species, <i>Racomitrium lanuginosum</i> and pleurocarpous mosses at least 10%	Attribute and target based on Perrin et al. (2014). A plentiful lichen/bryophyte layer is characteristic of this habitat
Vegetation composition: ericoid species and crowberry	Percentage cover at a representative number of 2m x 2m monitoring stops	Cover of ericoid species and crowberry (<i>Empetrum nigrum</i>) at least 15%	Attribute and target based on Perrin et al. (2014). A dwarf shrub layer with ericoid species is characteristic of this habitat (crowberry is only rarely present). Low cover of these species would be indicative of chronic overgrazing, burning, etc.
Vegetation composition: dwarf shrub species	Percentage cover at a representative number of 2m x 2m monitoring stops	Cover of dwarf shrubs less than 75%	Attribute and target based on Perrin et al. (2014). A dwarf shrub layer is characteristic of wet heaths, but the vegetation should be a mixture of dwarf shrub and graminoid species with higher cover of dwarf shrubs being potentially indicative of drainage
Vegetation composition: negative indicator species	Percentage cover at a representative number of 2m x 2m monitoring stops	Total cover of negative indicator species less than 1%	Attribute and target based on Perrin et al. (2014), where the list of negative indicator species for this habitat is also presented

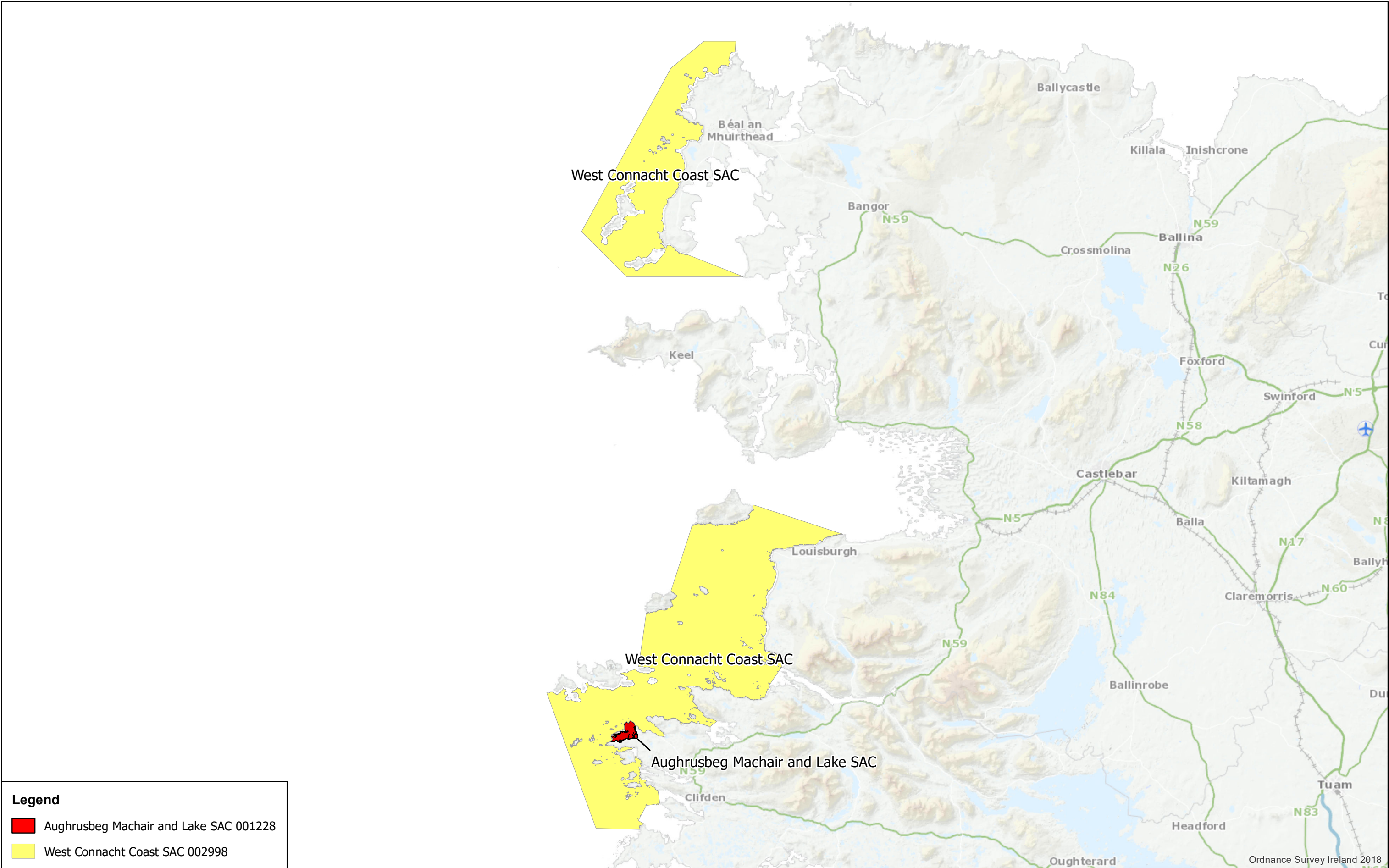
Vegetation composition: non-native species	Percentage cover at, and in local vicinity of, a representative number of 2m x 2m monitoring stops	Cover of non-native species less than 1%	Attribute and target based on Perrin et al. (2014). Non-native species can be invasive and have deleterious effects on native vegetation. A low target is set as non-native species can spread rapidly and are most easily dealt with when still at lower abundances
Vegetation composition: native trees and shrubs	Percentage cover in local vicinity of a representative number of monitoring stops	Cover of scattered native trees and shrubs less than 20%	Attribute and target based on Perrin et al. (2014). High cover of native trees and shrubs would indicate that the habitat may be succeeding towards scrub or woodland due to lack of grazing or due to the habitat drying out
Vegetation composition: bracken	Percentage cover in local vicinity of a representative number of monitoring stops	Cover of bracken (<i>Pteridium aquilinum</i>) less than 10%	Attribute and target based on Perrin et al. (2014). High cover of bracken would indicate that the habitat may be succeeding towards a dense bracken community
Vegetation composition: soft rush	Percentage cover in local vicinity of a representative number of monitoring stops	Cover of soft rush (<i>Juncus effusus</i>) less than 10%	Attribute and target based on Perrin et al. (2014). High cover of soft rush would suggest undesirable hydrological conditions. Note, however, that poor flushes dominated by soft rush can naturally occur in mosaic with this habitat. Discrete areas of this separate habitat should not be considered here
Vegetation structure: <i>Sphagnum</i> condition	Condition at a representative number of 2m x 2m monitoring stops	Less than 10% of the <i>Sphagnum</i> cover is crushed, broken and/or pulled up	Attribute and target based on Perrin et al. (2014). High levels of disturbed <i>Sphagnum</i> would indicate undesirable levels of grazers
Vegetation structure: signs of browsing	Percentage of shoots browsed at a representative number of 2m x 2m monitoring stops	Less than 33% collectively of the last complete growing season's shoots of ericoids, crowberry (<i>Empetrum nigrum</i>) and bog-myrtle (<i>Myrica gale</i>) showing signs of browsing	Attribute and target based on Perrin et al. (2014)
Vegetation structure: burning	Occurrence in local vicinity of a representative number of monitoring stops	No signs of burning in sensitive areas, into the moss, liverwort or lichen layer or exposure of peat surface due to burning	Attribute and target based on Perrin et al. (2014), where the list of sensitive areas for this habitat is also presented
Physical structure: disturbed bare ground	Percentage cover at, and in local vicinity of, a representative number of 2m x 2m monitoring stops	Cover of disturbed bare ground less than 10%	Attribute and target based on Perrin et al. (2014). Disturbance can include hoof marks, wallows, human footprints and vehicle and machinery tracks. Excessive disturbance can result in loss of characteristic species and presage erosion for heaths and peatlands
Physical structure: drainage	Percentage area in local vicinity of a representative number of monitoring stops	Area showing signs of drainage from heavy trampling, tracking or ditches less than 10%	Attribute and target based on Perrin et al. (2014). Drainage can result in loss of characteristic species and transition to drier habitats
Indicators of local distinctiveness	Occurrence and population size	No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat	This includes species on the Flora (Protection) Order, 2015 and/or Red Lists (Byrne et al., 2009; Regan et al., 2010; Lockhart et al., 2012; Wyse Jackson et al., 2016, etc.)



Legend

 Aughrusbeg Machair and Lake SAC 001228

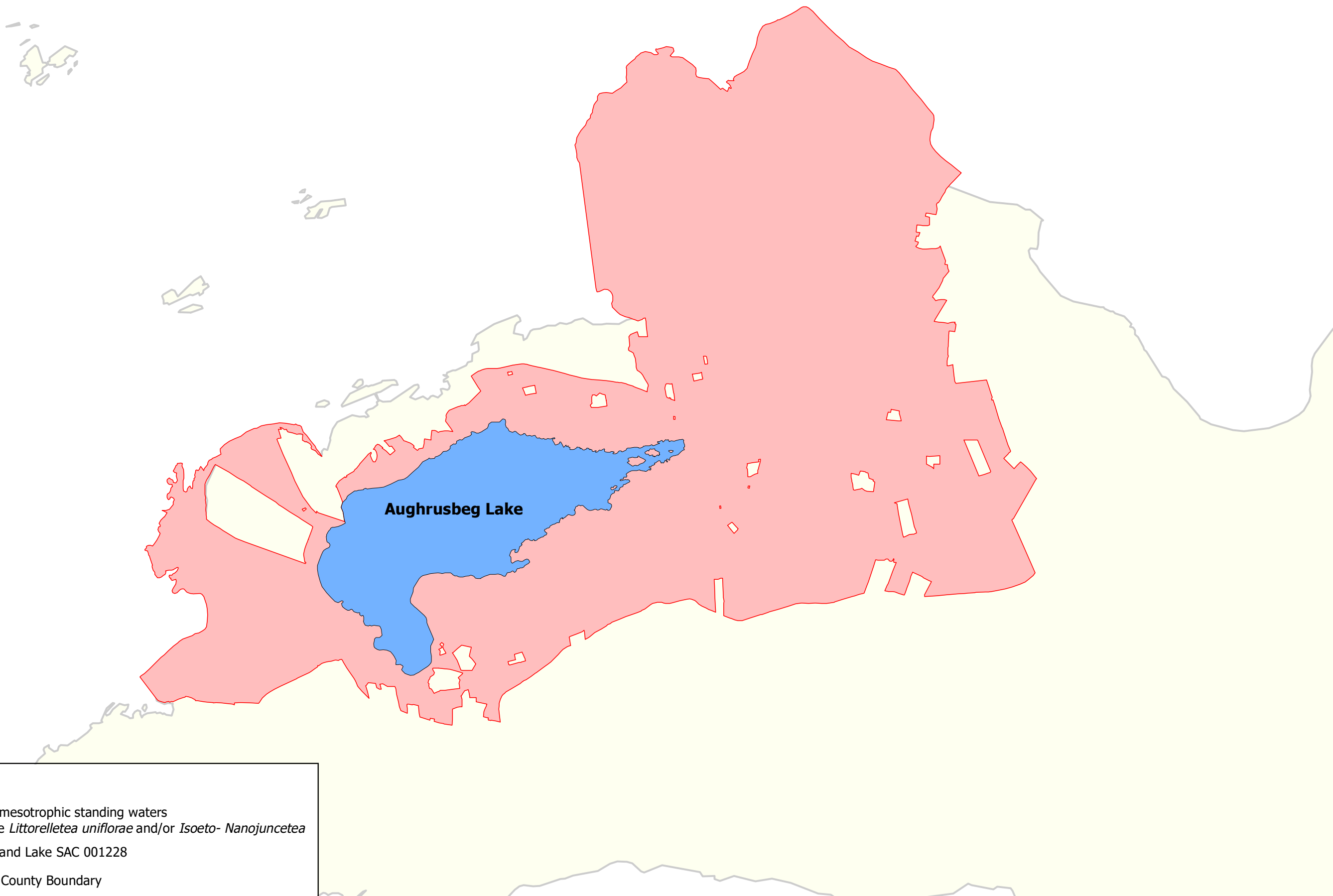




Legend

Aughrusbeg Machair and Lake SAC 001228

West Connacht Coast SAC 002998



Legend

- 3130 Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto- Nanojuncetea*
- Aughrusbeg Machair and Lake SAC 001228
- OSI Discovery Series County Boundary



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

MAP 3: AUGHRUSBEG MACHAIR AND LAKE SAC CONSERVATION OBJECTIVES INDICATIVE LAKE HABITATS

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

SITE CODE:
SAC 001228; version 3.02.
CO. GALWAY

0 0.125 0.25 0.5 Kilometres

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 athbhreithnithe a déanamh ar theorainneacha na gceantar comharthaíthe. Suirbhéarachta Ordonáis na hÉireann Ceadúnas Uimh OSI-NMA-014. © Suirbhéarachta Ordonáis na hÉireann Rialtas na hÉireann



Date: October 2021