NPWS

Lough Cahasy, Lough Baun and Roonah Lough SAC (site code: 001529)

Conservation objectives supporting document - coastal habitats

Version 1 - supplement 1

April 2026

IMPORTANT: This supplement, published in 2026, includes details relating to the EU habitat(s) **2110 Embryonic shifting dunes, 2130 Fixed coastal dunes with herbaceous vegetation ("grey dunes") and 21A0 Machairs (* in Ireland)** which were added as a Qualifying Interests for the site after the Site-Specific Conservation Objectives (Version 1) were published. This document should be read in conjunction with the Version 2 Site-Specific Conservation Objectives (NPWS, 2026), and with the Conservation objectives supporting document - Coastal habitats Version 1 (NPWS, 2017). Any references to this/these habitats in previously published Site-specific Conservation Objectives (SSCO), or SSCO supporting documents, including the mapping, are to be considered **superseded** by these updates.

Contents

Citation: NPWS (2026) Lough Cahasy, Lough Baun and Roonah Lough SAC (site code 001529) Conservation objectives supporting document - coastal habitats V1 - supplement 1. Conservation Objectives Supporting Document Series. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Dublin, Ireland.

1. Introduction

2110 Embryonic shifting dunes, 2130 Fixed coastal dunes with herbaceous vegetation ("grey dunes") and 21A0 Machairs (* in Ireland) were added as a Qualifying Interests to Lough Cahasy, Lough Baun and Roonah Lough SAC (site code: 001529) after the Site-Specific Conservation Objectives (Version 1) were published. This document sets out the SSCO(s) for the newly listed Qualifying Interest(s) for the site and acts as a supplement to the original SSCO Supporting Document.

2. Coastal habitats

2.1 2110 Embryonic shifting dunes

2.1.1 Site description of habitat

Situated two kilometres around the coast from Roonagh Quay/Emlagh Point, Lough Cahasy is one of a number of sedimentary lakes or lagoons fronted by a shingle bar. The surrounding landscape is rugged, situated on the edge of the Atlantic Ocean and at the foot of the mountains.

The foredunes are small in area and discontinuous, and are located in less exposed situations. This is typical of many dune systems along the western seaboard (Ryle *et al*., 2009).

2.1.2 Overall objective

The overall objective for '*Embryonic shifting dunes'* in Lough Cahasy, Lough Baun and Roonah Lough SAC (site code: 001529) is to '*maintain the Favourable conservation condition*'.

This objective is based on an assessment of the recorded condition of the habitat(s) under a range of attributes and targets. The assessment is divided into three main headings: (a) Area (b) Range and (c) Structure and Functions.

2.1.3 Area

Habitat area

Coastal habitats are generally dynamic and increase and decrease in area due to natural processes. These natural changes are not taken into account in conservation status assessments. Changes associated with human activities including destruction and restoration do contribute to the assessment of conservation status.

The foredunes were not extensive at Lough Cahasy. This was considered typical for the exposed western seaboard (Ryle *et al*., 2009), and no losses due to human activities were recorded. The total area of 2110 Embryonic shifting dunes in SAC 001529 is calculated at 0.92ha.

Target: Area stable or increasing, subject to natural processes, including erosion and succession.

2.1.4 Range

Habitat distribution

The 2110 Embryonic dunes were discontinuous and located in less exposed situations at the site, which was considered typical for the exposed conditions.

Target: No decline in the distribution of this habitat, unless it is the result of natural processes.

2.1.5 Structure and Functions

Structure and Functions for Embryonic shifting dunes are assessed on the basis of:

Physical structure: functionality and sediment supply

Target: Natural circulation of sediment and organic matter, absence of any physical obstructions or evidence of sediment extraction from the beach and its environs. Physical obstructions that have been in place and are unchanged since prior to 1994 are excluded from this target, unless they have a current adverse impact on sediment circulation.

Disturbance

Target: No more than 20% of the habitat should be subject to disturbance *e.g*. trampling, vehicle damage, removal of substrate.

Flowering and fruiting of any positive indicator species

Target: Present in 40% or more of stops.

Vegetation composition: typical species (positive indicators)

Target: At least one species occurs with a frequency of more than 40% of stops.

Vegetation composition: native negative indicator species

Target: No negative species occurs at a frequency of more than 60% of stops and combined cover of all negative species across the habitat is 5% or less and highest % cover of any negative species within any stop is 25% or less.

Vegetation composition: non-native species

Target: No non-native species occurs at a frequency of more than 20% of stops and no evidence that % cover is increasing.

Indicators of local distinctiveness: site-specific target features (including rare and notable species)

Target: No evidence of decline since designation.

The Structure and Functions were considered to be in good condition. All the criteria passed the Structure and Functions assessment for 2110 Embryonic shifting dunes. There was vigorous growth of embryo dunes at this site. There was some ongoing erosion and some disturbance from recreational pressure but the habitat was anticipated to remain in good condition (Ryle *et al*., 2009).

2.2 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*

2.2.1 Site description of habitat

This coastal site is situated on the seaward side of a number of lakes and interconnecting wetlands. The occurrence of large accumulations of sandy substrates at Lough Cahasy is characterised by fixed dune grassland. Most of the fixed dunes are fenced off and display the impacts of agricultural management. Large areas of the fixed dunes are grazed by cattle, while sheep and horses to a lesser extent were noted in damp grassland at the northern end of the site (Ryle *et al*., 2009).

2.2.2. Overall objective

The overall objective for *'Fixed coastal dunes with herbaceous vegetation (grey dunes)*'* in Lough Cahasy, Lough Baun and Roonah Lough SAC (site code: 001529) is to '*restore the Favourable conservation condition*'.

This objective is based on an assessment of the recorded condition of the habitat(s) under a range of attributes and targets. The assessment is divided into three main headings: (a) Area (b) Range and (c) Structure and Functions.

2.2.3. Area

Habitat area

Coastal habitats are generally dynamic and increase and decrease in area due to natural processes. These natural changes are not taken into account in conservation status assessments. Changes associated with human activities including destruction and restoration do contribute to the assessment of conservation status.

The total area of 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* in SAC 001529 is calculated at 38.23ha. No loss in area has been reported.

Target: Area should be stable or increasing, subject to natural processes, including erosion and succession.

2.2.4. Range

Habitat distribution

The occurrence of large accumulations of sandy substrates at Lough Cahasy is characterised by fixed dune grassland. Patches of sandy grassland extend over a considerable distance. Some remnant patches are far removed from the main distribution of the fixed dunes, located around Gortnagarryan strand and the two main carparks (Ryle *et al*., 2009).

Target: No decline in the distribution of this habitat, unless it is the result of natural processes.

2.2.5 Structure and Functions

Structure and Functions for Fixed coastal dunes with herbaceous vegetation (grey dunes)* are assessed on the basis of:

Physical structure: functionality and sediment supply

Target: Natural circulation of sediment and organic matter, absence of physical obstructions or evidence of sediment extraction from the beach and its environs. Physical obstructions that have been in place and are unchanged since prior to 1994 are excluded from this target, unless they have a current adverse impact on sediment circulation.

Disturbance

Target: No more than 20% of the habitat should be subject to disturbance *e.g.* trampling, vehicle damage, removal of substrate.

Bare sand

Target: Bare sand is present but does not exceed 10% of fixed dune habitat, subject to natural processes.

Vegetation structure: sward height

Target: Sward height is varied across the habitat. Between 30 and 70% of stops have an average height between 2-10cm. The remaining stops have taller sward, except for tracks, disturbed ground and by bare sand areas.

Flowering and fruiting of any positive indicator species

Target: Present in 40% or more of stops.

Vegetation composition: typical species (positive indicators)

Target: At least eight of the positive species occur with a frequency of more than 20% of stops and every stop contains at least four positive indicator species.

Vegetation composition: native negative indicator species

Target: No negative indicator species occurs at a frequency of more than 60% of stops and the total combined cover of all negative indicator species across the habitat is 5% or less and highest % cover of any negative indicator species within any stop is 25% or less.

Vegetation composition: non-native species

Target: No non-native species occurs at a frequency of more than 20% of stops and no evidence that % cover is increasing.

Vegetation composition: scrub/trees other than Juniper (*Juniperus communis*)

Target: Trees and scrub do not occur at a frequency of more than 60% of stops and combined cover across the habitat is 5%.

Vegetation composition: trees/saplings from adjacent plantations

Target: Present in or close to (*i.e.* within 20m) no more than 20% of stops.

Indicators of local distinctiveness: site-specific target features (including rare and notable species)

Target: No evidence of decline since designation.

The Structure and Functions were in poor condition due to the dunes having a largely rank and agriculturally disturbed dune grassland (Ryle *et al*., 2009).

Pressures included restructuring of field boundaries, intensification of agricultural activities in some areas and in other areas a reduction in grazing pressure, which have resulted in the rank marram dominated sward and the presence of negative indicator species such as Common Ragwort (*Senecio jacobaea*) (Ryle *et al*., 2009).

2.3 21A0 Machairs (* in Ireland)

2.3.1 Site description of habitat

The machair is not very extensive at Lough Cahasy and is largely concentrated along the southern end of the site around Lough Cahasy itself. A smaller area of intensively grazed machair grassland occurs at the foot of the fixed dunes (Ryle *et al*., 2009).

2.3.2 Overall objective

The overall objective for *'Machairs*'* in Lough Cahasy, Lough Baun and Roonah Lough SAC (site code: 001529) is to '*restore the Favourable conservation condition*'.

This objective is based on an assessment of the recorded condition of the habitat(s) under a range of attributes and targets. The assessment is divided into three main headings: (a) Area (b) Range and (c) Structure and Functions.

2.3.3 Area

Habitat area

Coastal habitats are generally dynamic and increase and decrease in area due to natural processes. These natural changes are not taken into account in conservation status assessments. Changes

associated with human activities including destruction and restoration do contribute to the assessment of conservation status.

The total area of 21A0 Machair in SAC 001529 is calculated at 14.32ha. No evidence of habitat loss has been recorded.

Target: Area stable or increasing, subject to natural processes, including erosion and succession.

2.3.4 Range

Habitat distribution

Machair is widely distributed and primarily occurs within three distinct areas in the SAC, in a matrix with lagoon and other coastal habitats.

Target: No decline in the distribution of this habitat, unless it is the result of natural processes.

2.3.5 Structure and Functions

Structure and Functions for Machairs* are assessed on the basis of:

Physical structure: functionality and sediment supply

Target: Natural circulation of sediment and organic matter, absence of any physical obstructions or evidence of sediment extraction from the beach and its environs. Physical obstructions that have been in place and are unchanged since prior to 1994 are excluded from this target, unless they have a current adverse impact on sediment circulation.

Disturbance

Target: No more than 20% of the habitat should be subject to disturbance *e.g*. trampling, vehicle damage, removal of substrate.

Physical structure: hydrological and flooding regime

Target: Hydrological regime supports typical seasonal fluctuations.

Bare ground

Target: Bare ground is present but does not exceed 5% of Machair habitat, subject to natural processes.

Flowering and fruiting of any positive indicator species

Target: Present in 40% or more of stops.

Vegetation structure: sward height

Target: Sward height of at least 8cm in July/August.

Vegetation composition: typical species (positive indicators)

Target: At least six of the positive species occur with a frequency of more than 20% of stops and every stop contains at least three positive species.

Vegetation composition: bryophytes

Target: Minimum cover of 1% at every stop.

Vegetation composition: native negative indicator species

Target: No negative indicator species occurs at a frequency of more than 40% of stops and the total combined cover of all negative indicator species across the habitat is 5% or less and highest % cover of any negative indicator species within any stop is 25% or less.

Vegetation composition: non-native species

Target: No non-native species occurs at a frequency of more than 20% of stops and no evidence that % cover is increasing.

Vegetation composition: scrub/trees

Target: No more than 5% cover or under control.

Indicators of local distinctiveness: site-specific target features (including rare and notable species)

Target: No evidence of decline since designation.

The Structure and Functions passed all of the criteria and was considered good. There is great variation within the habitat in terms of species diversity, which reflected the agricultural management of the area and the impact of ever-changing shingle/sand bar and rising waters of the lagoons/coastal lakes (Ryle *et al.,* 2009). Although the habitat was in good condition when it was assessed, some of the agricultural activities observed were considered likely to result in degradation of the habitat.

3. References

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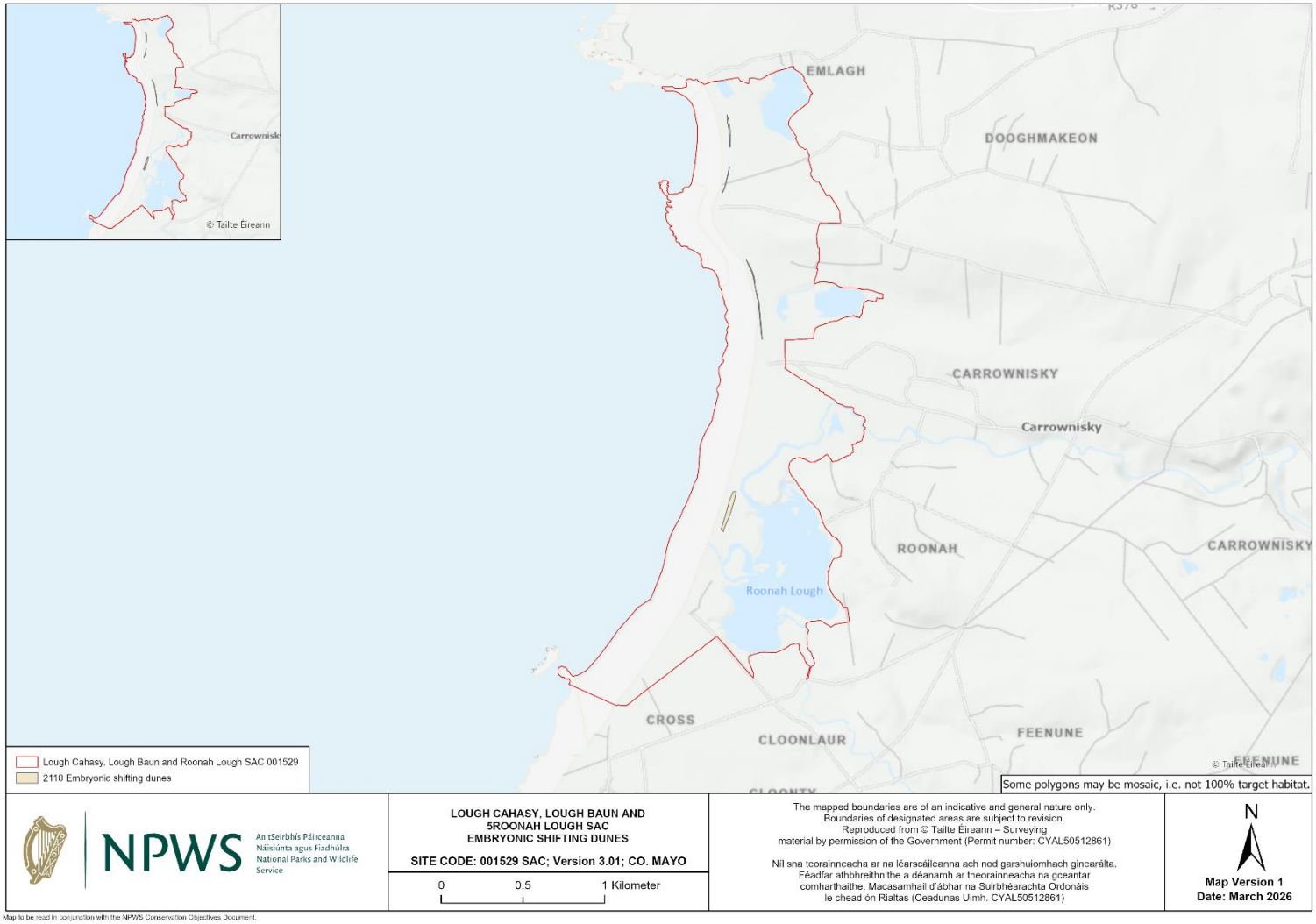
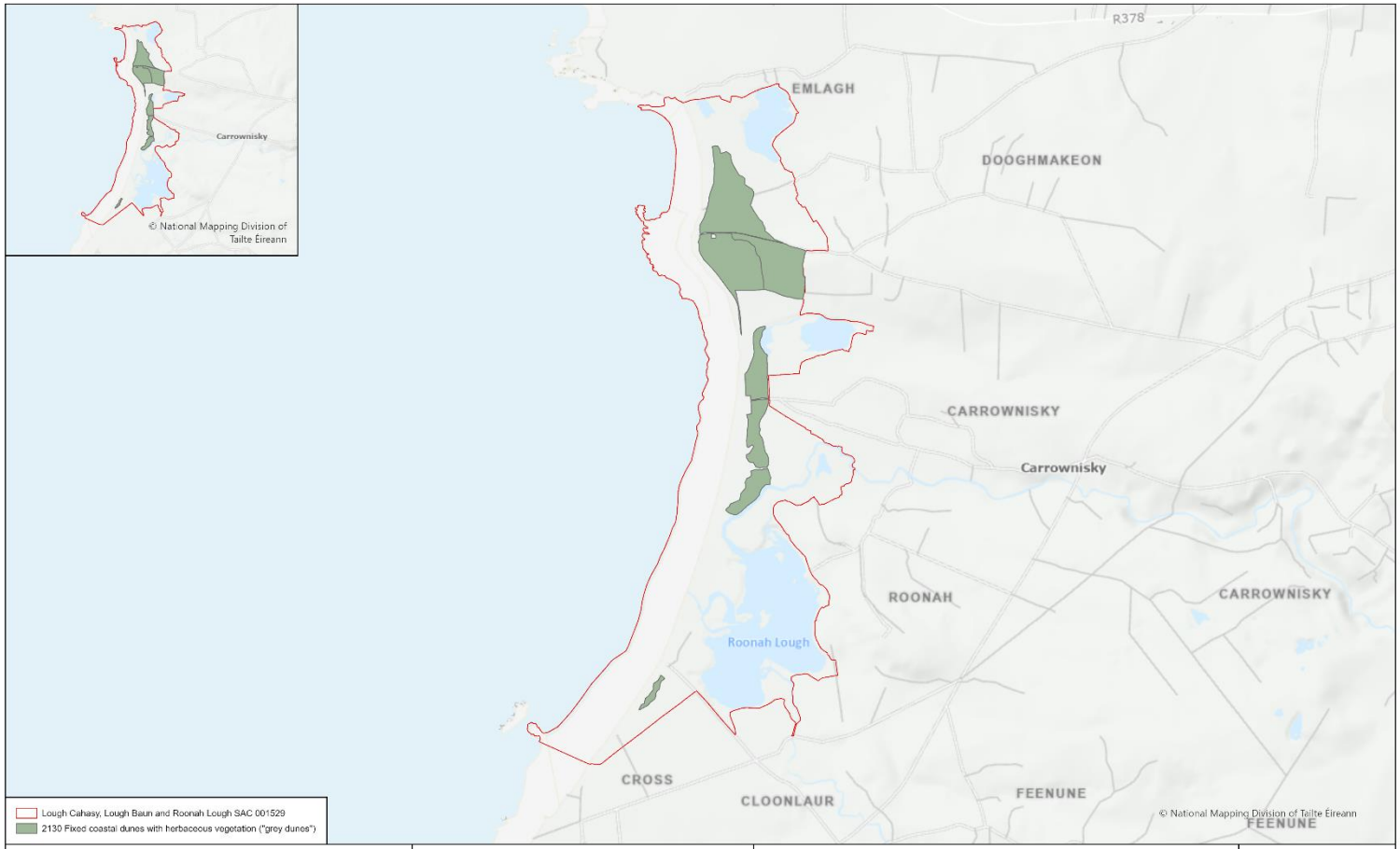
Perrin, P.M., Waldren, S., Penk, M.R. and O'Neill, F.H. (2017) Saltmarsh Function and Human Impacts in Relation to Ecological Status (SAMFHIRES). EPA Research Report, Wexford, Ireland.

Ryle, T., Murray, A., Connolly, K. and Swann, M. (2009) Coastal Monitoring Project 2004-2006. Unpublished report to the National Parks and Wildlife Service, Dublin.

Appendix 1 – Distribution map of Embryonic shifting dunes in Lough Cahasy, Lough Baun and Roonah Lough SAC (001529)



Appendix 2 – Distribution map of Fixed coastal dunes with herbaceous vegetation (grey dunes)* in Lough Cahasy, Lough Baun and Roonah Lough SAC (001529)



Appendix 3 – Distribution map of Machairs* in Lough Cahasy, Lough Baun and Roonah Lough SAC (001529)