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Conservation Objectives Series

Ballinturly Turlough SAC 000588

An Roinn
Cultúir, Oidhreachta agus Gaeltachta

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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***

000588	Ballinturly Turlough SAC
3180	Turloughs*

Please note that this SAC is adjacent to River Suck Callows SPA (004097). 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 :	1992
Title :	Turloughs over 10ha - Vegetation survey and evaluation
Author :	Goodwillie, R.N.
Series :	Unpublished report to 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 :	2017
Title :	Conservation objectives supporting document: Turloughs* and Rivers with muddy banks with Chenopodion rubri p.p. and Bidention p.p. vegetation
Author :	O Connor, Á.
Series :	Conservation objectives supporting document

Other References

Year :	1986
Title :	A study of the geology, hydrology and geomorphology of turloughs
Author :	Coxon, C.
Series :	Unpublished Ph.D. Thesis, Trinity College Dublin

Spatial data sources

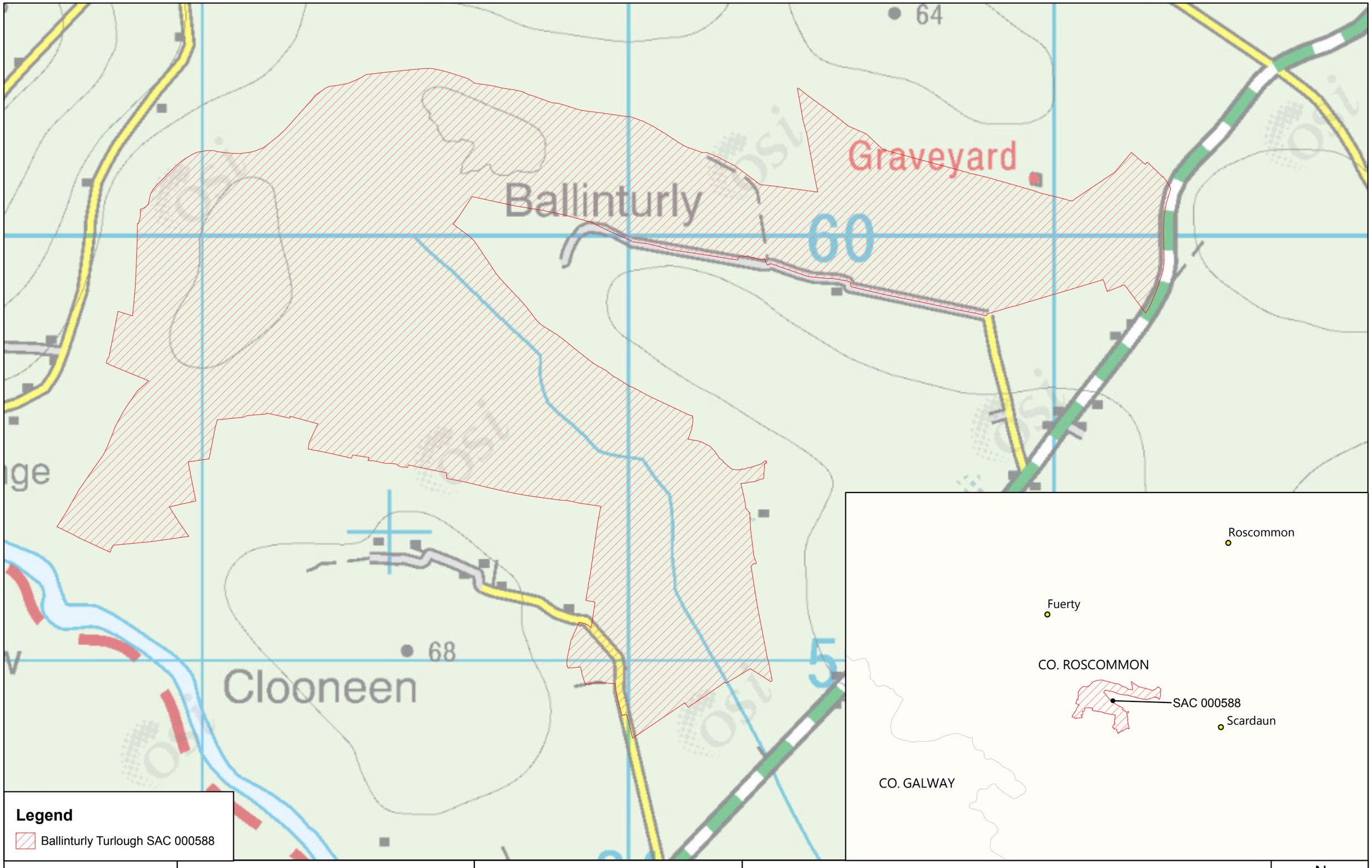
Year :	2016
Title :	Goodwillie (1992) Turloughs over 10 hectares: vegetation survey and evaluation
GIS Operations :	Goodwillie map scanned and georectified. Turlough as outlined on map digitised. New turlough dataset clipped to SAC boundary. Expert opinion used as necessary to resolve any issues arising
Used For :	3180 (map 3)

3180 Turloughs

To maintain the favourable conservation condition of Turloughs* in Ballinturly Turlough SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Habitat area	Hectares	Area stable at c.124ha or increasing, subject to natural processes. See map 3	Ballinturly turlough, estimated at approximately 124.98ha, of which 124.4ha occurs within the boundary of Ballinturly Turlough SAC, was the fourth largest turlough studied by Goodwillie (1992). See map 3 for recorded extent. Goodwillie (1992) described Ballinturly turlough as having a V-shaped basin with a predominantly flat floor and a shallow, semi-permanent lake to the west. See also Coxon (1986). See O Connor (2017) for information on all attributes and targets
Habitat distribution	Occurrence	No decline, subject to natural processes	The habitat occurs throughout Ballinturly Turlough SAC. See map 3
Hydrological regime	Various	Maintain appropriate natural hydrological regime necessary to support the natural structure and functioning of the habitat	Hydrological regime is sub-divided into more detailed attributes (groundwater contribution, flood duration, frequency, area and depth, and permanently flooded/wet areas) and targets in O Connor (2017). Goodwillie (1992) states that the main inflow to Ballinturly turlough is from a boggy area to the south-east, but there is also intermittent flow from the south-west. All water flows towards the semi-permanent lake in the west. Goodwillie (1992) recorded a line of depressions along the centre of the northern limb that act as swallow holes, but states that the main swallow hole is where the northern limb joins the body of the turlough. There is some standing water in the quarried area to the north-east. The oligotrophic nature of Ballinturly turlough suggests limited/no inputs from the River Suck
Soil type	Hectares	Maintain variety, area and extent of soil types necessary to support turlough vegetation and other biota	Goodwillie (1992) and Coxon (1986) state that peaty soils predominate at Ballinturly turlough, with 80cm depth of peat over marl to the west, peat in the southern limb, and 15-20cm peaty soil over rock in the higher levels. Goodwillie (1992) also recorded out-cropping bedrock at the north-eastern end of Ballinturly turlough, and an associated small amount of quarrying. Loose rocks were common elsewhere
Soil nutrient status: nitrogen and phosphorus	N and P concentration in soil	Maintain nutrient status appropriate to soil types and vegetation communities	See O Connor (2017) for further details on this and all attributes
Physical structure: bare ground	Presence	Maintain sufficient wet bare ground, as appropriate	See O Connor (2017) for further details on this and all attributes
Chemical processes: calcium carbonate deposition and concentration	Calcium carbonate deposition rate/soil concentration	Maintain appropriate calcium carbonate deposition rate and concentration in soil	Marl is overlain by peat in the west of Ballinturly turlough and old peat cuttings have exposed the marl (Goodwillie, 1992). Goodwillie (1992) also noted that the lake has a marly surface
Water quality	Various	Maintain appropriate water quality to support the natural structure and functioning of the habitat	Water quality is sub-divided into more detailed attributes (nutrients, colour, phytoplankton and epiphyton biomass) and targets in O Connor (2017). The oligotrophic vegetation communities found at Ballinturly turlough demonstrate that it requires oligotrophic, 'high status' water. Goodwillie (1992) stated "a special feature of the site is the presence of some of the group of species indicative of extreme oligotrophy, for example *Potamogeton polygonifolius* and *Eleocharis multicaulis*", both of which are associated with the highly calcareous turloughs of the eastern Burren

Active peat formation	Flood duration	Maintain active peat formation	Goodwillie (1992) recorded 80cm peat over marl to the west of Ballinturly turlough as well as peat in the southern limb. Coxon (1986) noted 15-20cm of peaty soil over rock in the higher parts of Ballinturly turlough. Old peat cuttings were recorded to the south and west of the site (Goodwillie, 1992)
Vegetation composition: area of vegetation communities	Hectares	Maintain area of sensitive and high conservation value vegetation communities/units	See Goodwillie (1992) for information on vegetation communities at Ballinturly turlough, which had a total of 16 communities including "the largest area of Poor grassland (2B) and the second largest of both Sedge fen (5D) and Wet *Carex nigra* (6B) of any site"
Vegetation composition: vegetation zonation	Distribution	Maintain vegetation zonation/mosaic characteristic of the site	See Goodwillie (1992) for information on vegetation at Ballinturly turlough, which had "a good range of the upper and middle vegetation found in turloughs"
Vegetation structure: sward height	Centimetres	Maintain sward heights appropriate to the vegetation unit, and a variety of sward heights across the turlough	See Goodwillie (1992) for information on vegetation at Ballinturly turlough. According to Goodwillie (1992), sheep mainly graze the drier areas, with some cattle, with animals being generally absent from the lake. Some poaching was recorded in peaty areas at the south-east
Typical species	Presence	Maintain typical species within and across the turlough	Typical species is sub-divided into more detailed attributes (terrestrial, wetland and aquatic plants, invertebrates and birds) and targets in O Connor (2017). See Goodwillie (1992) for information on plant species at Ballinturly turlough, which includes the Near Threatened slender-tufted sedge (*Carex acuta*) (Wyse Jackson et al., 2016)
Fringing habitats: area	Hectares	Maintain marginal fringing habitats that support turlough vegetation, invertebrate, mammal and/or bird populations	See O Connor (2017) for further details on this and all attributes
Vegetation structure: turlough woodland	Species diversity and woodland structure	Maintain appropriate turlough woodland diversity and structure	Goodwillie (1992) recorded hawthorn (*Crataegus monogyna*)-dominated woodland in the south-west corner of Ballinturly turlough, with a little buckthorn (*Rhamnus cathartica*) on dry ground with limestone outcrops



Legend

Ballinturly Turlough SAC 000588

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MAP 1:
BALLINTURLY TURLOUGH SAC
CONSERVATION OBJECTIVES
SAC DESIGNATION

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

SITE CODE:
SAC 000588; version 3.01. CO. ROSCOMMON

0 100 200 300 400 Meters

N

Map Version 1
Date: Sept 2017

SAC 000588

SPA 004097

Legend

- Ballinturly Turlough SAC 000588
- River Suck Callows SPA 004097
- OSi Discovery Series County Boundary

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MAP 2:
BALLINTURLY TURLOUGH SAC
CONSERVATION OBJECTIVES
ADJACENT DESIGNATIONS

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

SITE CODE:
SAC 000588; version 3.01. SPA 004097; version 3.
CO. ROSCOMMON / CO. GALWAY

0 2 4 6 8 Kilometers

N

Map Version 1
Date: Sept 2017

Legend

- Ballinturly Turlough SAC 000588
- OSi Discovery Series County Boundary
- 3180 Turloughs

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MAP 3:
BALLINTURLY TURLOUGH SAC
CONSERVATION OBJECTIVES
TURLOUGHS

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

SITE CODE:
SAC 000588; version 3.01.
CO. ROSCOMMON

0 100 200 300 400 Meters

N

Map Version 1
Date: Sept 2017