

National Parks and Wildlife Service

Conservation Objectives Series

Croaghill Turlough SAC 000255



An Roinn
Cultúir, Oidhreachta agus Gaeltachta

Department of
Culture, Heritage and the Gaeltacht



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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*

000255 Croaghill Turlough SAC

3180 TurloughsE

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
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Year :	2015
Title :	Turlough hydrology, ecology and conservation (Part 1)
Author :	Waldren, S. (ed.)
Series :	Unpublished report to NPWS
<hr/>	
Year :	2015
Title :	Turlough hydrology, ecology and conservation (Part 2)
Author :	Waldren, S. (ed.)
Series :	Unpublished report to NPWS
<hr/>	
Year :	2017
Title :	Conservation objectives supporting document: Turloughs* and Rivers with muddy banks with <i>Chenopodium rubri</i> p.p. and <i>Bidenton</i> 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
<hr/>	
Year :	1995
Title :	Additions to the Irish range of <i>Rorippa islandica</i> (Oeder ex Murray) Borbas
Author :	Goodwillie, R.
Series :	Irish Naturalists' Journal, 25(2): 57-59

Spatial data sources

Year : 2015

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 2)

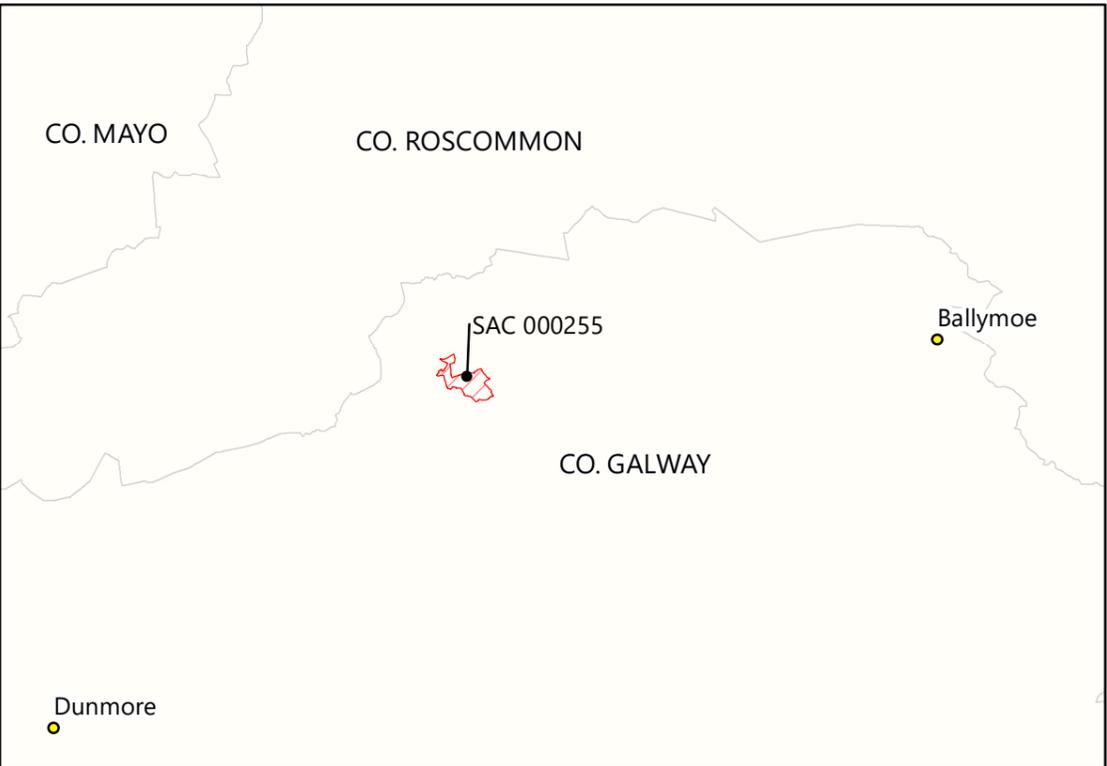
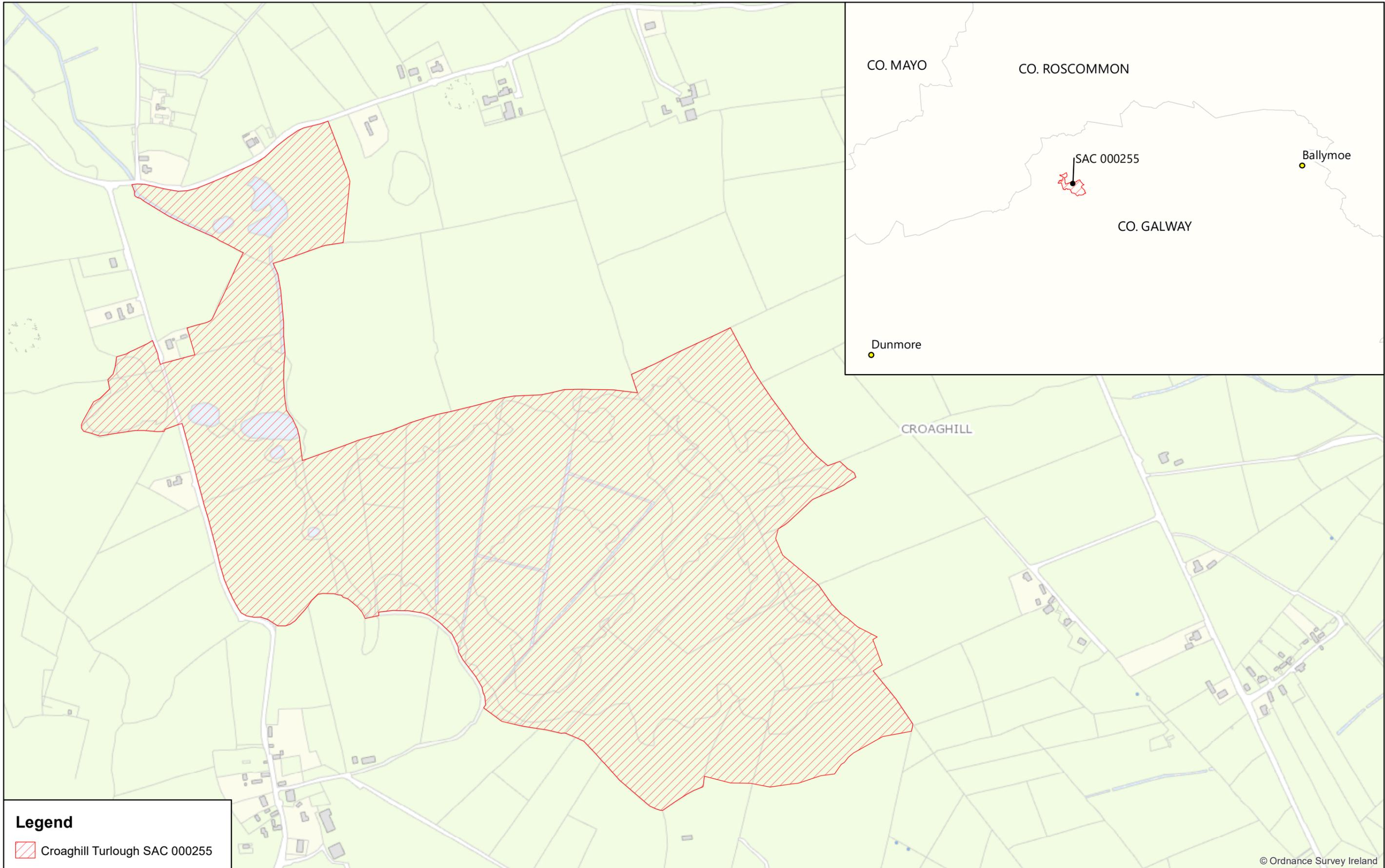
Conservation Objectives for : Croaghill Turlough SAC [000255]

3180 Turloughs

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

Attribute	Measure	Target	Notes
Habitat area	Hectares	Area stable at c.37ha or increasing, subject to natural processes	Based on the approximate area of 38.6ha for Croaghill turlough from Waldren (2015), of which 36.67ha lies within the boundary of Croaghill Turlough SAC. Croaghill was one of 22 Trinity College Dublin (TCD) turlough project study sites (Waldren, 2015). It was also studied by Goodwillie (1992). See map 2 for the recorded extent (based on Waldren, 2015). Croaghill turlough was assessed as being in inadequate conservation condition (Waldren, 2015). See also Coxon (1986) and Goodwillie (1995) and for information on Croaghill turlough. See O Connor (2017) for information on all attributes and targets
Habitat distribution	Occurrence	No decline, subject to natural processes	See map 2
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). The hydrological data suggest that Croaghill turlough experiences a single significant flooding event per annum (Waldren, 2015). Croaghill turlough is hydrologically linked to Coolcam turlough (SAC 000218) (Waldren, 2015)
Soil type	Hectares	Maintain variety, area and extent of soil types necessary to support turlough vegetation and other biota	Croaghill soils are moderately acidic and peaty, with low amounts of calcium carbonate (Waldren, 2015)
Soil nutrient status: nitrogen and phosphorus	N and P concentration in soil	Maintain/restore nutrient status appropriate to soil types and vegetation communities	Waldren (2015) found mean total nitrogen (TN) at Croaghill was towards the high end of the range for turloughs (and very variable among samples) with a mean of 15,883mg/kg TN, and total phosphorus was moderate at 896mg/kg TP
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	Percentage calcium carbonate content was low at Croaghill (3.8%) (Waldren, 2015)
Water quality	Various	Restore 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). Waldren (2015) recorded average TP of 25µg/l. Owing to the dominance of peat soils at Croaghill, ≤10µg/l TP is likely to be required to restore favourable condition
Active peat formation	Flood duration	Maintain active peat formation, where appropriate	More than 90% of the Croaghill turlough area is fen peat (Waldren, 2015)
Vegetation composition: area of vegetation communities	Hectares	Maintain area of sensitive and high conservation value vegetation communities/units	See Goodwillie (1992) and Waldren (2015) for information on vegetation communities at Croaghill
Vegetation composition: vegetation zonation	Distribution	Maintain vegetation zonation/mosaic characteristic of the site	See Goodwillie (1992) and Waldren (2015) for information on vegetation at Croaghill

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) and Waldren (2015) for information on vegetation at Croaghill
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) and Waldren (2015) for information on plant and aquatic invertebrate species at Croaghill. Northern yellow-cress (<i>Rorippa islandica</i>) occurs at Croaghill (Goodwillie, 1992, 1995)
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	See O Connor (2017) for further details on this and all attributes



Legend

 Croagh Hill Turlough SAC 000255



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MAP 1:
CROAGHILL TURLOUGH SAC
CONSERVATION OBJECTIVES
SAC DESIGNATION

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

SITE CODE:
SAC 000255; version 3.01. CO. GALWAY

0 50 100 150 200 250 Meters

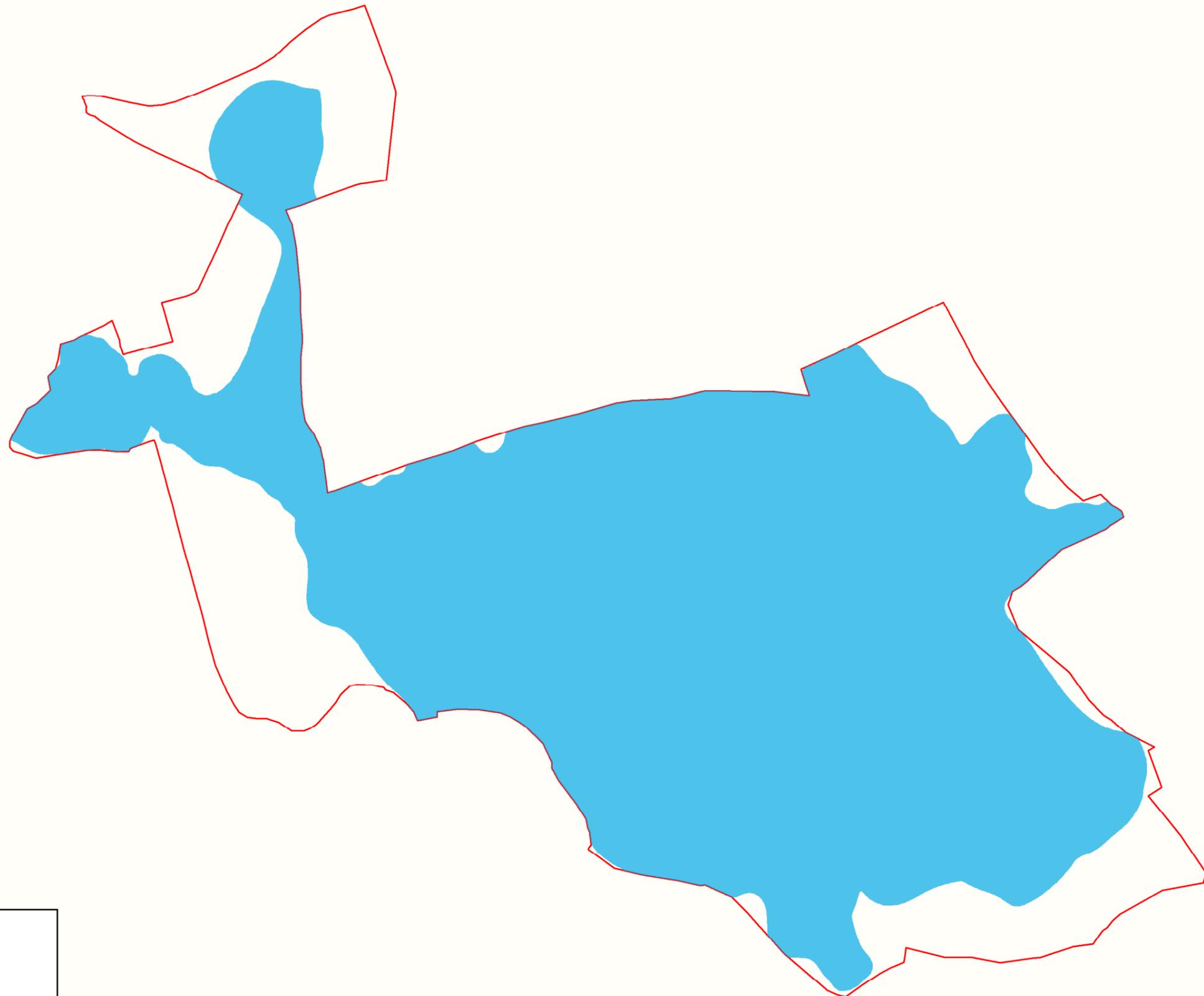
The mapped boundaries are of an indicative and general nature only. Boundaries of designated areas are subject to revision.
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Map Version 1
Date: Aug 2017

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Legend

- 3180 Turlough
- Croaghill Turlough SAC 000255
- OSi Discovery Series County Boundary

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**MAP 2:
CROAGHILL TURLOUGH SAC
CONSERVATION OBJECTIVES
TURLOUGH**

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

**SITE CODE:
SAC 000255; version 3.01. CO. GALWAY**

0 50 100 150 200 250 Meters

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**Map Version 1
Date: Aug 2017**