

# National Parks and Wildlife Service

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## *Conservation Objectives Series*

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Lisduff Turlough SAC 000609



An Roinn  
Cultúir, Oidhreachta agus Gaeltachta  

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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*

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000609 Lisduff Turlough SAC

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3180 TurloughsE

## 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

<b>Year :</b>	1992
<b>Title :</b>	Turloughs over 10ha - Vegetation survey and evaluation
<b>Author :</b>	Goodwillie, R.N.
<b>Series :</b>	Unpublished report to NPWS
<hr/>	
<b>Year :</b>	2015
<b>Title :</b>	Turlough hydrology, ecology and conservation (Part 1)
<b>Author :</b>	Waldren, S. (ed.)
<b>Series :</b>	Unpublished report to NPWS
<hr/>	
<b>Year :</b>	2015
<b>Title :</b>	Turlough hydrology, ecology and conservation (Part 2)
<b>Author :</b>	Waldren, S. (ed.)
<b>Series :</b>	Unpublished report to NPWS
<hr/>	
<b>Year :</b>	2017
<b>Title :</b>	Conservation objectives supporting document: Turloughs* and Rivers with muddy banks with <i>Chenopodium rubri</i> p.p. and <i>Bidention</i> p.p. vegetation
<b>Author :</b>	O Connor, Á.
<b>Series :</b>	Conservation objectives supporting document

### Other References

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	Unpublished Ph.D. Thesis, Trinity College Dublin

## Spatial data sources

**Year :** 2015  
**Title :** Turlough hydrology, ecology and conservation  
**GIS Operations :** Dataset clipped to SAC boundary. Expert opinion used as necessary to resolve any issues arising  
**Used For :** 3180 (map 2)

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## Conservation Objectives for : Lisduff Turlough SAC [000609]

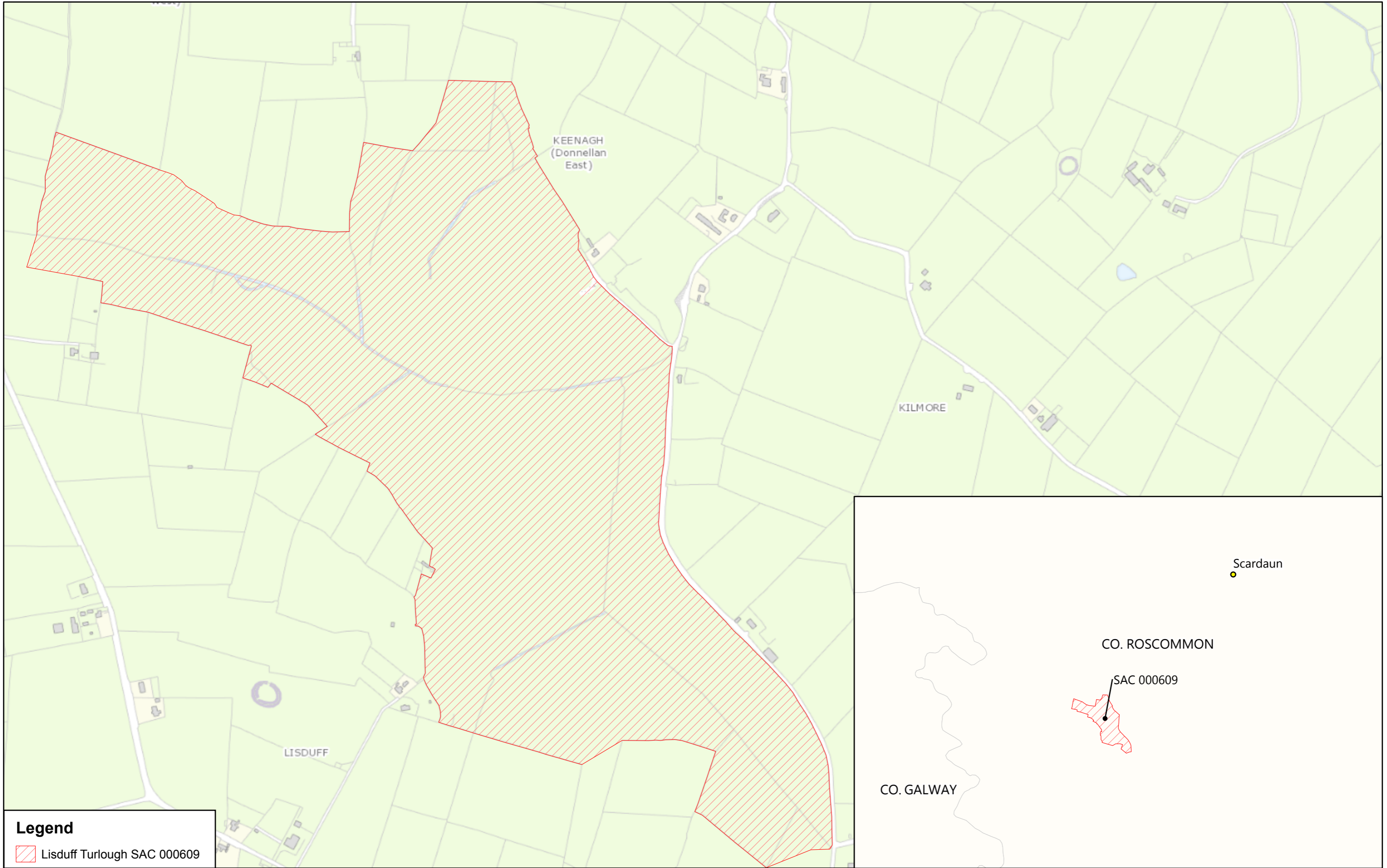
### 3180 Turloughs

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


Attribute	Measure	Target	Notes
Habitat area	Hectares	Area stable at c.53ha or increasing, subject to natural processes. See map 2	Based on the approximate area of 54ha for Lisduff turlough from Waldren (2015), of which 52.8ha lies within the boundary of Lisduff Turlough SAC. Lisduff was one of 22 Trinity College Dublin (TCD) turlough project study sites (Waldren, 2015). It was also studied by Coxon (1986) and Goodwillie (1992). See map 2 for the recorded extent. Lisduff turlough was assessed as being in favourable conservation condition (Waldren, 2015). 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). Lisduff turlough is shallow and flat, relatively slow to fill and drain, typically has one major flood event per annum and had the smallest water level fluctuations of the 22 turloughs studied (Waldren, 2015). Goodwillie (1992) stated that Lisduff turlough was relatively wet and that a few central ponds persist into July, even in a dry year. Goodwillie (1992) identified swallow holes/estavelles in the north-east, at the southern end and, possibly, along the east side. Goodwillie (1992) also noted that water enters Lisduff turlough overground from the north-west
Soil type	Hectares	Maintain variety, area and extent of soil types necessary to support turlough vegetation and other biota	Lisduff turlough had extensive areas of fen peat soil covering almost 86% of the turlough area (Waldren, 2015). Lisduff soils are alkaline and organic, with very high amounts of calcium carbonate (Waldren, 2015)
Soil nutrient status: nitrogen and phosphorus	N and P concentration in soil	Maintain nutrient status appropriate to soil types and vegetation communities	Waldren (2015) found mean total nitrogen (TN) at Lisduff turlough of 9,234mg/kg TN and total phosphorus (TP) of 432mg/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	Soils were alkaline at Lisduff turlough with a very high mean calcium carbonate content of 42.5% (Waldren, 2015)
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). Waldren (2015) recorded mean TP of 7.4µg/l and mean chlorophyll <i>a</i> of 1.4µg/l at Lisduff turlough indicating very good water quality
Active peat formation	Flood duration	Maintain active peat formation	Lisduff soils are organic and dominated by fen peat (Waldren, 2015). Goodwillie (1992) recorded significant areas of peat in the western half of Lisduff and stated that peat-cutting appeared to have occurred in some of the eastern section
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 Lisduff turlough


Vegetation composition: vegetation zonation	Distribution	Maintain vegetation zonation/mosaic characteristic of the site	See Goodwillie (1992) and Waldren (2015) for information on vegetation at Lisduff turlough
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 Lisduff turlough
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 Lisduff turlough
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	Two small areas of woodland/scrub were mapped along the margins of Lisduff turlough by Waldren (2015)





**Legend**

 Lisduff Turlough SAC 000609



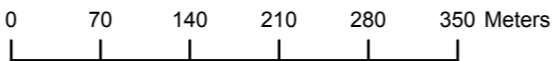
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**MAP 1:  
LISDUFF TURLOUGH SAC  
CONSERVATION OBJECTIVES  
SAC DESIGNATION**

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

**SITE CODE:  
SAC 000609; version 3. CO. ROSCOMMON**

0 70 140 210 280 350 Meters

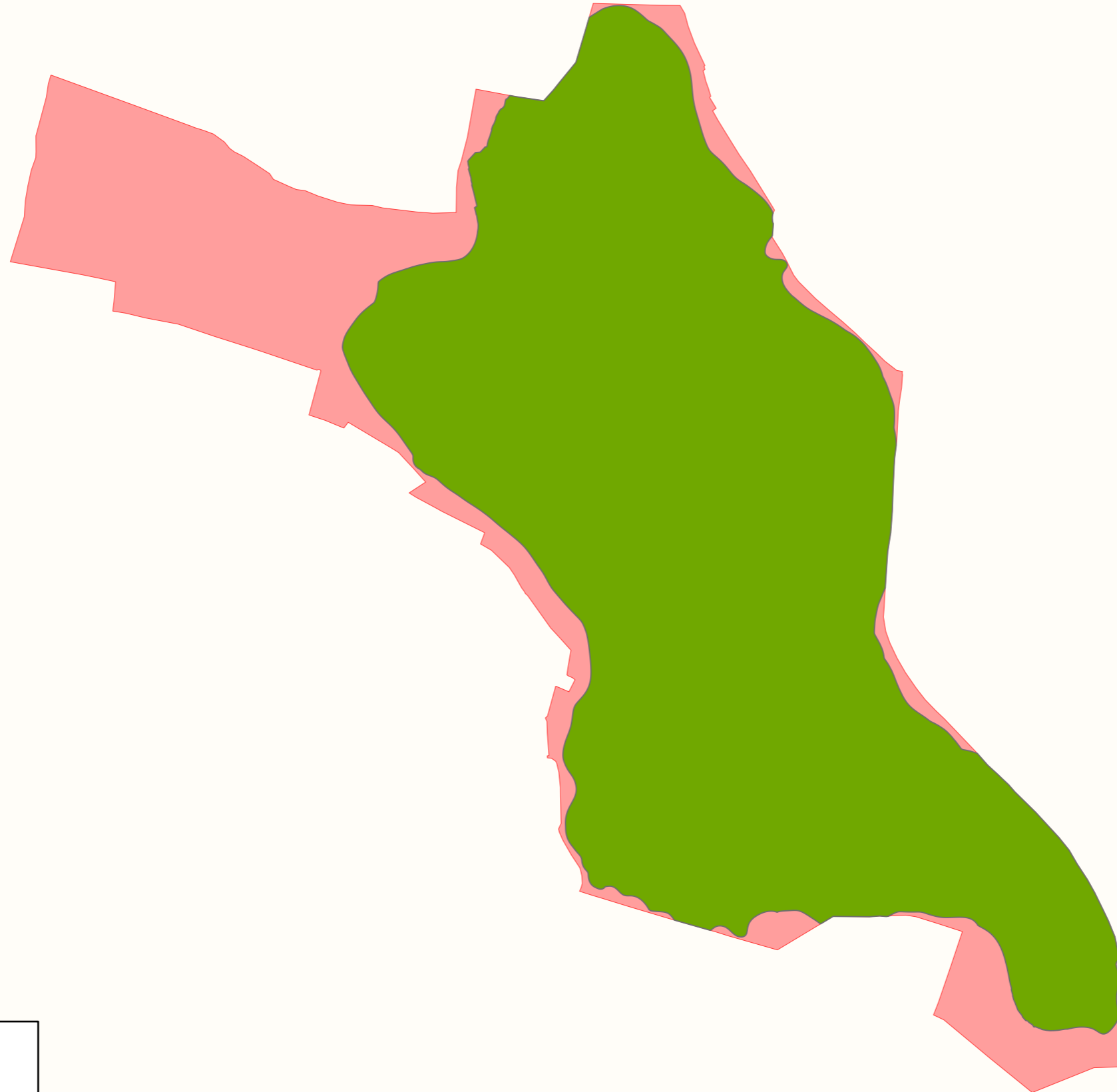


The mapped boundaries are of an indicative and general nature only. Boundaries of designated areas are subject to revision.  
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**Map Version 1  
Date: Sept 2017**



**Legend**

- 3180 Turloughs
- Lisduff Turlough SAC 000609
- OSi Discovery Series County Boundary

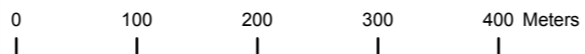


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**MAP 2:  
LISDUFF TURLOUGH SAC  
CONSERVATION OBJECTIVES  
TURLOUGHs**

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

**SITE CODE:  
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**Map Version 1  
Date: Sept 2017**