

National Parks and Wildlife Service

Conservation Objectives Series

Four Roads Turlough SAC 001637



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*

001637 Four Roads Turlough SAC

3180 TurloughsE

Please note that this SAC overlaps with Four Roads Turlough SPA (004140). See map 2. The conservation objectives for this site should be used in conjunction with those for the overlapping 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
<hr/>	
Year :	2017
Title :	Conservation objectives supporting document: Turloughs* and Rivers with muddy banks with Chenopodium rubri p.p. and Bidention p.p. vegetation
Author :	O Connor, Á.
Series :	Conservation objectives supporting document
<hr/>	

Spatial data sources

Year : 2017

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

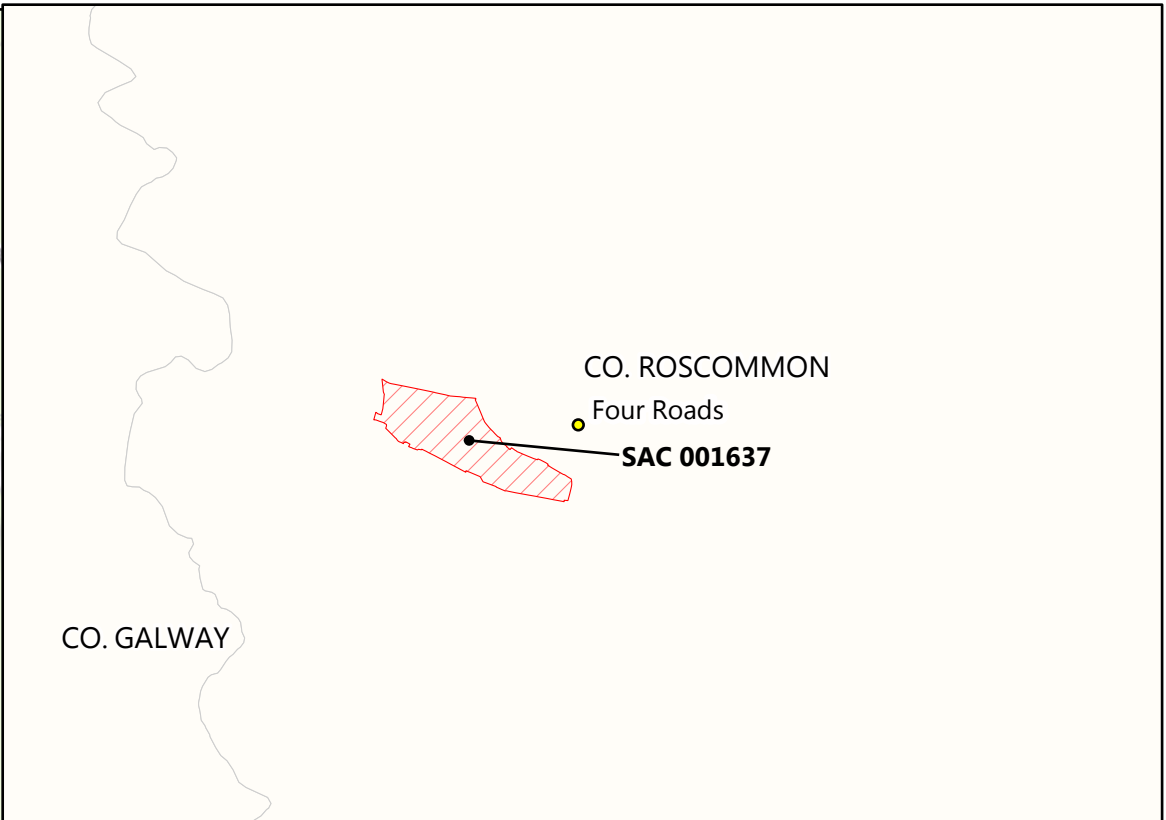
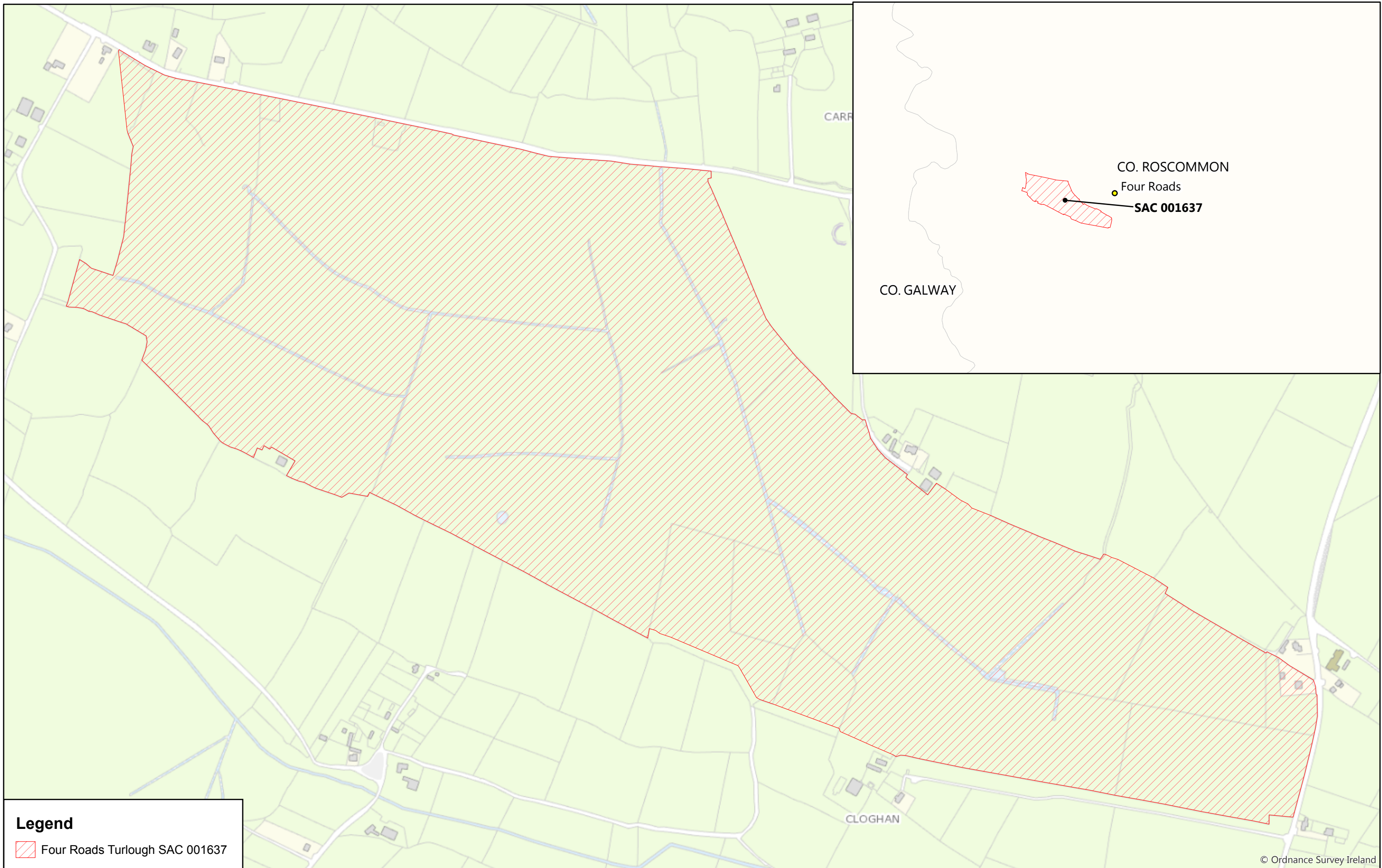
Used For : 3180 (map 3)

3180 Turloughs


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


Attribute	Measure	Target	Notes
Habitat area	Hectares	Area stable at c.72ha or increasing, subject to natural processes	Approximate area of 72.1ha for Four Roads (or Cloonloughlin) turlough in Four Roads Turlough SAC based on Goodwillie (1992). See map 3 for recorded extent. Goodwillie (1992) described Four Roads turlough as a very flat basin, subject to less frequent flooding than the nearby Lisduff turlough (in Lisduff Turlough SAC 000610). See O Connor (2017) for information on all attributes and targets
Habitat distribution	Occurrence	No decline, subject to natural processes	See map 3
Hydrological regime	Various	Maintain/restore 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) described Four Roads turlough as an apparently dry site and stated that standing water remains longest at the western end where there was a narrow pond in April. It appears to flood quite predictably and dry out early (NPWS internal files). From aerial imagery, an extensive network of drains is evident within the turlough basin
Soil type	Hectares	Maintain variety, area and extent of soil types necessary to support turlough vegetation and other biota	Peat is a significant presence throughout Four Roads turlough (NPWS internal files)
Soil nutrient status: nitrogen and phosphorus	N and P concentration in soil	Maintain/restore nutrient status appropriate to soil types and vegetation communities	Fertiliser has been applied in the upper turlough basin in Four Roads Turlough SAC (NPWS internal files)
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	See O Connor (2017) for further details on this and all attributes
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). The eastern half of Four Roads turlough has been fertilised (NPWS internal files). An interim target of $\leq 20\mu\text{g/l}$ total phosphorus (TP) is suggested for Four Roads turlough; however, it may be necessary to achieve a target of $\leq 10\mu\text{g/l}$ TP to restore favourable condition
Active peat formation	Flood duration	Maintain active peat formation	Peat is a significant presence throughout Four Roads turlough, with occasional tree stumps in it (NPWS internal files)

Vegetation composition: area of vegetation communities	Hectares	Restore area of sensitive and high conservation value vegetation communities/units	See Goodwillie (1992) for a brief description of the vegetation communities at Four Roads turlough, which he described as "a eutrophic, grassy turlough". Goodwillie (1992) noted a small area of grazed <i>Schoenus nigricans</i> and <i>Carex panicea</i> in the north-west corner and large amounts of <i>Carex nigra</i> below this, which he considered likely to be community 6A (Dry <i>Carex nigra</i>). The vegetation of the upper eastern part is very uniform and dominated by <i>Agrostis stolonifera</i> , there are a few lower areas with <i>Carex rostrata</i> and <i>Menyanthes trifoliata</i> , and a very few pools with <i>Ranunculus trichophyllus</i> , <i>Baldellia ranunculooides</i> and <i>Apium inundatum</i> (NPWS internal files). No oligotrophic communities have been recorded and fertiliser use in the upper part of the turlough basin has significantly altered the vegetation (NPWS internal files)
Vegetation composition: vegetation zonation	Distribution	Maintain/restore vegetation zonation/mosaic characteristic of the site	See Goodwillie (1992) for a brief description of the vegetation of Four Roads turlough
Vegetation structure: sward height	Centimetres	Maintain/restore sward heights appropriate to the vegetation unit, and a variety of sward heights across the turlough	Heavy grazing pressure has been noted at Four Roads turlough, including poaching of the peat soil (NPWS internal files)
Typical species	Presence	Restore typical species within and across the turlough	It has been noted that the uniformity of the basin and fertilisation of the eastern half means that there is little of botanical interest in the vegetation of Four Roads turlough, but that it is used as a refuge and feeding area by herbivorous wildfowl and waders (NPWS internal files)
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

 Four Roads Turlough SAC 001637



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**MAP 1:
FOUR ROADS TURLOUGH SAC
CONSERVATION OBJECTIVES
SAC DESIGNATION**

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

**SITE CODE:
SAC 001637; version 3.02. CO. ROSCOMMON**

0 60 120 180 240 300 Meters

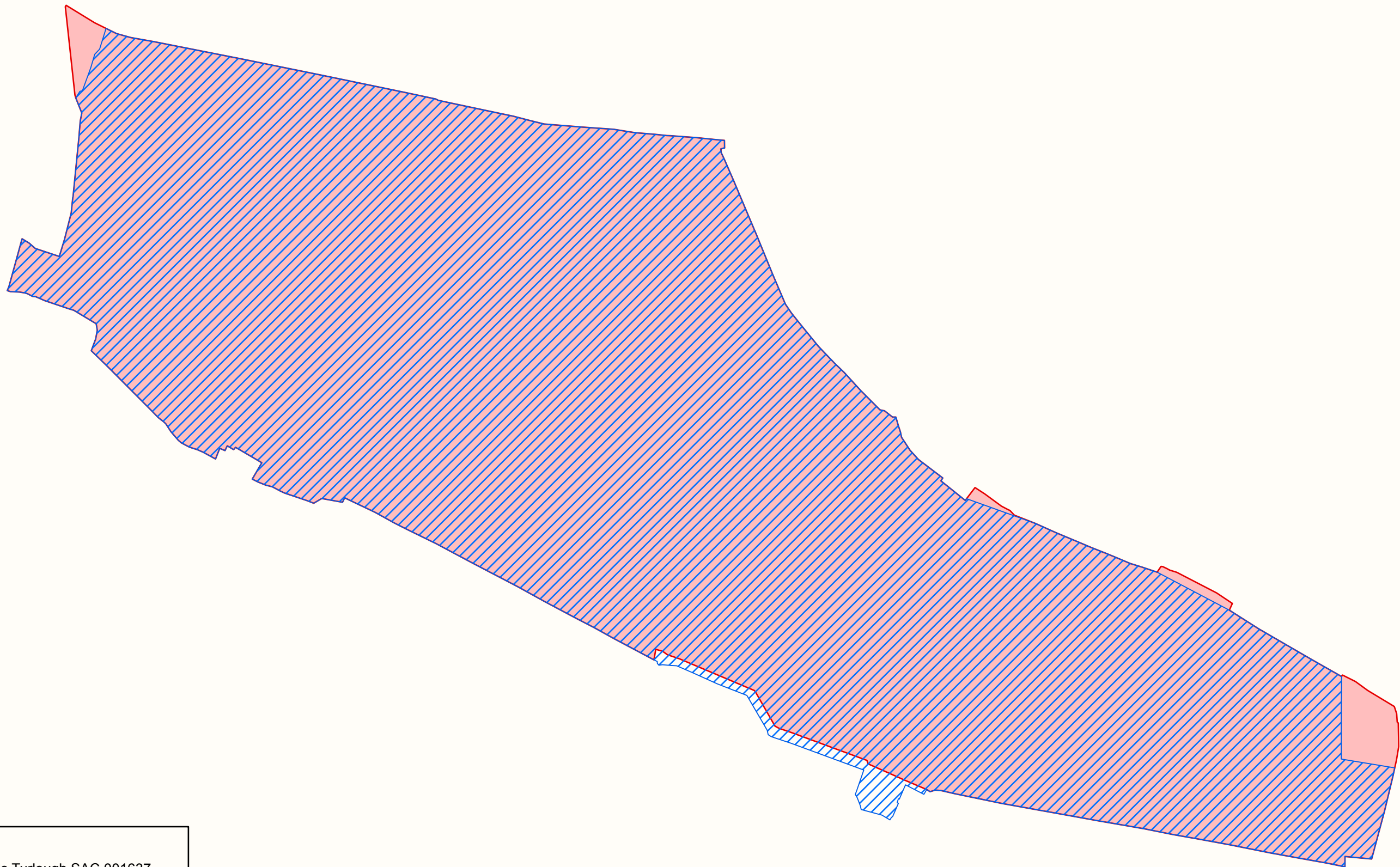
The mapped boundaries are of an indicative and general nature only. Boundaries of designated areas are subject to revision.
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**Map Version 1
Date: Nov 2017**

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Legend

- Four Roads Turlough SAC 001637
- Four Roads Turlough SPA 004140
- OSi Discovery Series County Boundary

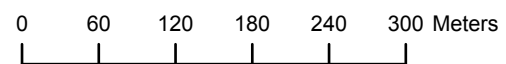


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**MAP 2:
FOUR ROADS TURLOUGH SAC
CONSERVATION OBJECTIVES
ADJACENT, ADJOINING AND
OVERLAPPING DESIGNATIONS**

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

**SITE CODE:
SAC 001637; version 3.02. SPA 004140; version 3.01.
CO. ROSCOMMON**

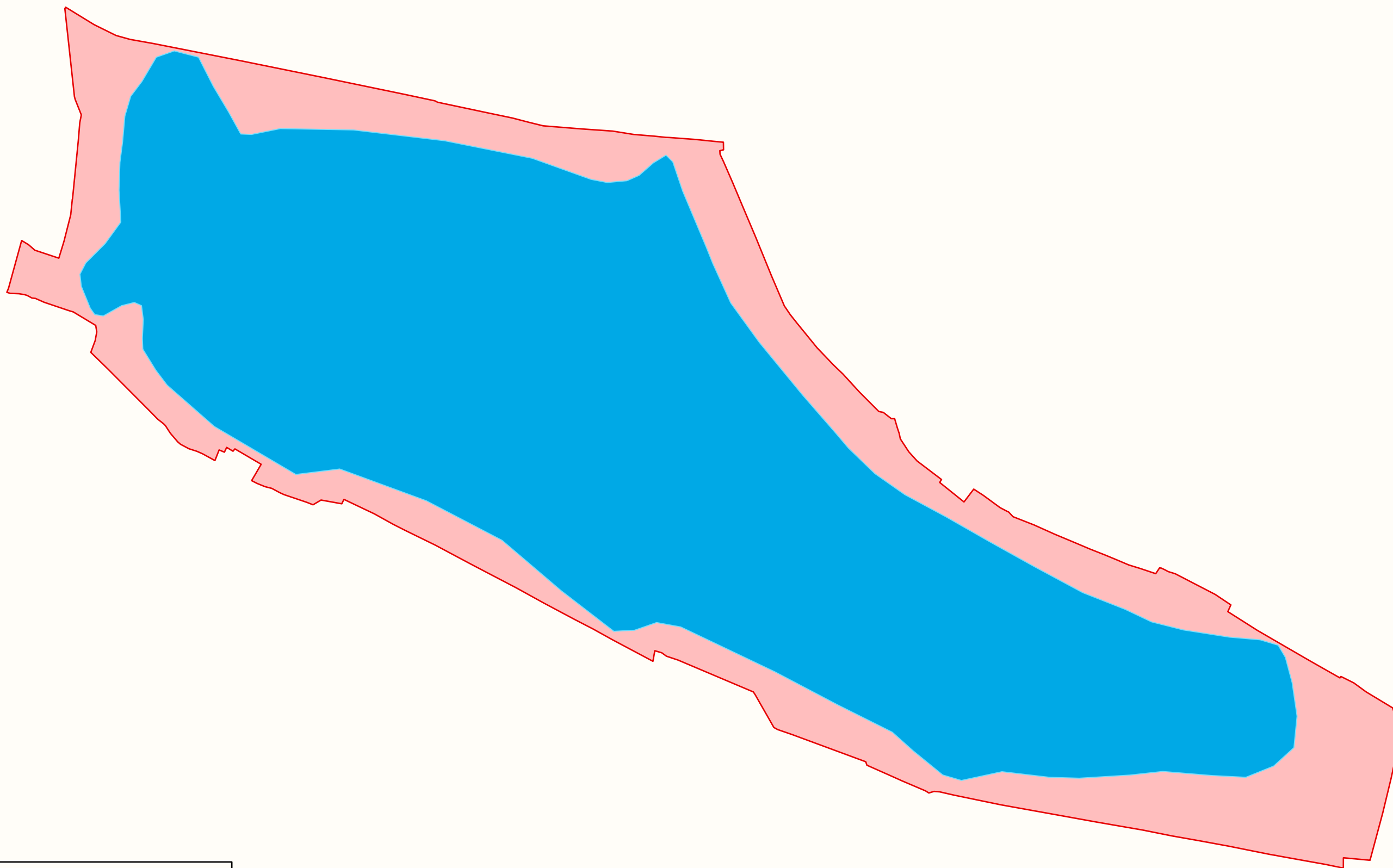


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**Map Version 1
Date: Nov 2017**



Legend

- Four Roads Turlough SAC 001637
- 3180 Turloughs




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**MAP 3:
FOUR ROADS TURLOUGH SAC
CONSERVATION OBJECTIVES
TURLOUGHs**

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

**SITE CODE:
SAC 001637; version 3.02. CO. ROSCOMMON**

0 70 140 210 280 350 Meters



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**Map Version 1
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