

Summary of findings from the Survey of Potential Turloughs 2015

Report for:
NPWS, 7 Ely Place, Dublin 2

Volume I: Main Report



Overview of partially flooded turlough at Site 23 Drumcaran 3/Loughvella, Co. Clare.
Photo by J. Martin.

October 2015

F.H. O'Neill & J.R. Martin



Botanical, Environmental & Conservation Consultants Ltd.
43 Herbert Lane, Dublin 2, D02 TE86
Tel: 01 6619713

Website: www.botanicalevironmental.com

Email: info@botanicalevironmental.com



DOCUMENT CONTROL SHEET

Client	NPWS. Project Officer: Deirdre Lynn
Project title	Survey of Potential Turloughs
Project number	PRJ109
Document title	Summary of findings from the Survey of Potential Turloughs 2015.
Citation	O'Neill, F.H. & Martin, J.R. (2015). Summary of findings from the Survey of Potential Turloughs 2015. Unpublished Report for National Parks & Wildlife Service. Volume I: Main Report.

Author(s)	Reviewed by	Approved by	Version	Issue date
F. O'Neill, J. Martin	S. Kimberley	J. Martin	Draft	28/10/2015
F. O'Neill, J. Martin	J. Martin	J. Martin	Final 1.0	23/11/2015

Table of Contents

VOLUME I: Main Report

- 1 Introduction 1
- 2 Methodology..... 1
- 3 Results..... 3
- 4 Discussion..... 8
- 5 Conclusions 8
- 6 References 9
- Appendix 1: Full names of Annex I habitats noted during this survey 10
- Appendix 2: Photographs of the data elements from the survey. 11
- Appendix 3: Data sheet used in the survey 17

VOLUME II: Site Reports

1 Introduction

BEC Consultants were commissioned by the Department of Arts, Heritage and the Gaeltacht (DAHG) to conduct a survey of potential turloughs. Irish turloughs can be defined as topographic depressions in karst which are intermittently inundated on an annual basis, mainly from groundwater, and have a substrate and/or ecological communities that are characteristic of wetlands (Working Group on Groundwater, 2004). Turloughs are listed as a priority habitat (Annex I habitat *3180) under Annex I of the EU Habitats Directive (92/43/EEC). Therefore Ireland is required, under Article 17 of the Habitats Directive, to report on the conservation status of the habitat every six years. The latest National Conservation Assessment (NCA) (NPWS 2013) for habitat *3180 Turloughs utilised a combination of verified field survey records and potential records derived from aerial imagery interpretation, Ordnance Survey Ireland maps and the Geological Survey Ireland karst database. The purpose of this survey was to improve the quality of these data for the next conservation status report, prioritising the survey of sites with the potential to increase the recorded range of the habitat. The survey therefore provided additional information on the distribution and range of turloughs, as well as data on associated vegetation communities and notable species, and expanded the list of verified turlough sites available for future survey and ecological research.

2 Methodology

This project required the field survey of between 120 and 180 potential turlough sites between April and September 2015 with the aim of determining whether they were turloughs or not. Survey priority was given to sites which would extend the range or distribution of Annex I habitat *3180 Turloughs.

Prior to survey, comparisons were made of the flooding extent on the site over a series of aerial images (e.g. Bing maps, ESRI satellite imagery). The EPA rivers and streams GIS layers (available from www.epa.ie) were checked for the presence of surface water inputs and outputs.

During the field survey, prior to surveying each site, every effort was made to contact local landowners and residents to ascertain the seasonal hydrological behaviour of the feature. This local knowledge was found to be invaluable in expanding the information available to the surveyors and helping them to make a more informed assessment of the site.

The key questions asked of local people were (a) does the area flood in winter, (b) does it dry out completely, or nearly so, in summer; and (c) does the source of the flooding seem to come mainly from surface water (e.g. rain, rivers, streams entering the basin) or up from underground, such as from springs or groundwater. Locals sometimes volunteered information on the presence of swallow holes on site. Information on the presence of fish was also found to be useful in discounting permanent lakes as turloughs.

Following an initial walkover, an assessment was then made of whether the site constituted a turlough or not. Coxon (1987b) regarded the key characteristics of a turlough as:

- a minimum flooding depth of 0.5 m for part of the year
- a generally dry floor for part of the year
- flooding via springs or estavelles
- emptying to groundwater.

Sites in which more than 50% of the flood-zone consisted of permanent water were generally deemed not to be turloughs unless there was evidence that the seasonally flooded area formed a separate feature from the permanent water area.

Sites where the vegetation consisted mainly of swamp vegetation such as *Phragmites australis* or *Typha latifolia* swards were deemed not to be turloughs as the vegetation was indicative of ground that remained permanently waterlogged.

Sites in which the flooding did not reach the minimum flooding depth of 0.5 m in the year were not deemed to be turloughs. Flooding depth was inferred from vegetation characteristics, such as changes in vegetation composition to more flood-tolerant species or the presence of *Cinclidotus fontinaloides*, in conjunction with landform.

Sites in which the flooding appeared to be primarily from non-groundwater sources, such as large rivers, streams or drainage ditches, were not deemed to be turloughs.

Where doubt remained whether or not a site was a turlough, sites were marked as “Unsure” and a winter or summer visit (as applicable) recommended; the rest of the survey was still completed for these undetermined sites.

For sites which were verified as turloughs, or whose determination as a turlough was uncertain, the following data were recorded in an Excel spreadsheet, which is one of the main deliverables of this project:

- A brief description of the site was written and its condition (including pressures and threats) and conservation value were also reported.
- Data on the main vegetation communities (including approximate percentage cover of each) were recorded using the data form supplied by the National Parks and Wildlife Service (NPWS) at the outset of the project. The list of communities provided by NPWS were based on the results of turlough vegetation studies carried out by researchers at Trinity College Dublin. In these studies relevé data collected from a range of vegetation types in 22 turloughs were analysed to produce a number of discrete vegetation communities (Sharkey, 2012; Waldren *et al.* 2015).
- Data on notable species, notable features, predominant soil type (determined by visual and textural characteristics only, no soil analyses were conducted to determine the proportion of mineral to organic matter) and soil moisture were also recorded. A revised centroid for the turlough was estimated using the field map and recorded in Irish Grid coordinates. The number of land parcels that a turlough covered was recorded. Photographic evidence of each recorded element was collected (see Appendix 2 for selected images and Appendix 3 for data sheet showing the numbered list of data elements which were photographed). These photographs and their associated image databank form part of the project deliverables.
- The tick-box permanent/open water was used for both permanent and open water. Where possible, if the water present was known not to be permanent (e.g. through consultation with local people or aerial photograph interpretation), this was indicated. However, this could not always be determined with certainty, particularly in sites surveyed at the beginning and end of the field season, so this limitation should be recognised when interpreting the data.
- The occurrence of turloughs as complexes was noted. A turlough complex in the context of this project was defined, in consultation with NPWS, as a group of turloughs that form one waterbody during winter flooding. Underground links were not counted, as many turloughs are hydrologically linked underground. In some cases the individual turloughs making up the complex were each listed separately by NPWS as potential turloughs, so they were surveyed and reported separately. In other cases, e.g. 528 Cullenhugh, the site itself was comprised of several individual waterbodies which were surveyed as part of a single site.

- The area of each turlough was estimated by counting whole or partial 1 ha squares on the field map. For turloughs that were associated with large areas of permanent water, the area of this permanent water was excluded from the area calculation, although for flooded turloughs surveyed early or late in the survey this area could not always be determined with certainty. Cover of vegetation communities was given as a percentage of this estimated area. Open water sometimes made it impossible to assign a percentage value to all vegetation communities. Because of the establishment of many aquatic macrophytes in areas of permanent water, there was a slight difficulty in estimating the area of permanent water to be excluded from the turlough, and the area of aquatic macrophytes to be included within the turlough. However, this was really only an issue where permanent water made up a significant portion of the flooded area.

3 Results

A total of 180 sites were visited between April and September 2015. The majority of sites visited were small features located in an agricultural setting, or permanent lakes of varying size. The predominant soil type in confirmed turloughs was mineral (some with marl, though marl was never the dominant soil type).

Of the 180 sites visited, 86 were confirmed as turloughs, 82 were discounted as turloughs, and a further 12 could not be determined with certainty (labelled as “Unsure”). These 12 sites may need further hydrological studies to determine the exact source of the water or degree of flooding. The reasons for any decisions made were included on the spreadsheet of data which constitutes the primary output of the project and accompanies this report. A Word/PDF version of this spreadsheet has been produced and is presented as Volume II of this report. For the purposes of this report, all sites which were fully surveyed and photographed will be referred to as turloughs, including the 12 “Unsure” sites.

It was estimated by the surveyors that 64 of the 82 non-turloughs historically had never been a turlough. The majority of these sites were comprised primarily of permanent waterbodies or wetland habitats that remained perpetually waterlogged, or seasonally wet habitats that were fed by surface water. An estimated twelve sites were reported by local people never to flood at all, but it was not always clear if these areas had historically been turloughs. Sites visited around Corrofin and Claregalway, Co. Galway, were affected by the River Clare Drainage Schemes of the 1850s and 1950s, with the scheme altering the hydrology so significantly that areas that historically contained very large turloughs (Lyons, 2010; O’Connor, 2015) now do not flood at all. There were six confirmed instances of recent (within the last 20 years) destruction of turloughs, due to farm improvements (drainage or conversion to agriculture), national road schemes or factory site preparation.

3.1 *Extension of range of Annex I *3180*

As a result of this survey, the range of Annex I habitat *3180 has been extended by at least seven hectads, compared to the maps produced for the 2013 NCAs (NPWS, 2013). Table 1 lists the sites involved and hectads that have been added. Most of these sites are in Co. Westmeath, where a number of potential turloughs were identified in 2014. It should be noted that the current turlough database still holds records of potential turloughs that have not been ground-truthed, and other potential turloughs were also seen in the field during this survey, so further extensions to the distribution of this priority habitat are likely.

Table 1. New hectads added to the range of Annex I habitat *3180 Turloughs following the survey.

Turlough number	County	Hectad added to range	Is it a Turlough?
325	Mayo	L98	Unsure
446	Sligo	G63	Yes
510	Cavan	N48	Yes
557, 558, 559	Cavan	N58	Yes
529, 531, 537	Westmeath	N45	Yes
532	Westmeath	N46	Yes
518, 519, 520, 527, 533, 534, 540, 542	Westmeath	N47	Yes

3.2 Size of turloughs

Most of the turloughs surveyed were small features, with a median size of 2 ha, and just 15 estimated at 10 ha or more (Table 2), the site at Cuillaun, Co. Mayo covering by far the largest area at approximately 60 ha. The smallest turlough was estimated at 0.05 ha.

Table 2: Largest turloughs surveyed during 2015.

Turlough no.	Turlough name	County	Is it a Turlough?	Approximate area (ha)
304	Cuillaun	Mayo	Yes	60
479	Rahinane	Tipperary	Yes	25
17	Coolreash East	Clare	Yes	18
371	Ardmore	Roscommon	Yes	16
50	Nooan/Lough Reagh	Clare	Unsure	15
22	Drumcaran 3/Loughvella	Clare	Yes	15
207	Moylough Turlough	Galway	Yes	15
413	Kinnity	Roscommon	Yes	15
376	Ballymacurley South	Roscommon	Unsure	13
113	Callow Lough	Galway	Yes	13
419	Lissonuffy	Roscommon	Unsure	11
91	Ballynakillew 2	Galway	Yes	11
246	Turloughmore Common	Galway	Yes	11
315	Greenwood East	Mayo	Yes	10
398	Corrabeg	Roscommon	Yes	10

3.3 Vegetation communities

Vegetation communities were identified and percentage cover within the turlough visually estimated. This task was not always straightforward as some turloughs were flooded at the time of survey and not all communities were visible, or could only be inferred from species visible above the water. Other sites, particularly those with wide, flat basins, contained communities that only very gradually graded from one type to another, presenting transitional vegetation types or communities that could not easily be placed into a single community type.

The community type most frequently encountered was the general grass/forb-dominated community (Table 3), which is consistent with the fact that the majority of the turloughs surveyed occurred within agricultural farmland. In these sites, species such as *Agrostis stolonifera*, *Potentilla anserina*, *Ranunculus repens* and *Mentha aquatica* commonly occurred. Aquatic macrophyte communities were

also frequent, particularly where small areas of permanent water remained. Characteristic species here included *Schoenoplectus lacustris*, water crowfoots (*Ranunculus* spp.), and larger sedges such as *Carex rostrata* and *C. vesicaria*. Small amounts of woodland or scrub were found at the edges of many turloughs, although percentage cover was generally low, typically less than 5%. No examples of the *Eleocharis acicularis* community were identified. There were also 35 instances of other communities that covered significant areas but were transitional between communities or could not be assigned with certainty to the pre-defined community types. *Equisetum fluviatile* was often a component of these habitats.

Table 3: Frequency of vegetation communities in turlough sites.

Community	No. of turloughs
Grass/forb-dominated community	88
Aquatic macrophyte community	45
Woodland/scrub	36
Fen community	33
<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	31
<i>Polygonum amphibium</i> community	13
<i>Lolium</i> grassland	12
<i>Molinia caerulea</i> - <i>Carex panicea</i> community	8
Limestone grassland	5
Flooded pavement	4
Charophyte community	3
<i>Eleocharis acicularis</i> community	0

3.4 Notable species

Most of the turloughs surveyed did not contain any notable species apart from *Cinclidotus fontinaloides*, which was found in 85% of sites (Table 4). *Frangula alnus* was found in the three Coolreash turloughs in Co. Clare, and *Potentilla fruticosa* was also found at two Clare sites.

Table 4. Notable species recorded in turlough sites.

Species	No. of turloughs
<i>Cinclidotus fontinaloides</i>	73
<i>Frangula alnus</i>	3
<i>Potentilla fruticosa</i>	2
<i>Teucrium scordium</i>	0
<i>Viola persicifolia</i>	0
<i>Limosella aquatica</i>	0

3.5 Notable features

Of the notable features noted during the turlough survey, the most frequent were permanent water (with an additional 13 sites having open water not thought to be permanent), evidence of nutrient enrichment, and algal paper (Table 5). It was not always possible to determine whether water visible during the survey was permanent or just the remnants of winter flooding, but in general the surrounding vegetation helped to determine this, e.g. *Schoenoplectus lacustris* indicated more permanent stands; evidence from local landowners was also useful in determining whether some permanent water remained throughout the year. Algal paper and evidence of nutrient enrichment

were seen in half of the turloughs surveyed, with nutrient enrichment usually manifested as algal growth. In many cases, the amounts of algal growth were small and may simply have been what remained following contraction of a large volume of water into a small area. The most severe algal growth was noted at 560 Ballyloughan Complex, Co. Monaghan, with extensive growth also noted at sites 551 Belleek 2, Co. Meath and 21 Drumcaran 1, Co. Clare. Swallow holes were seen in 30 of the 180 sites surveyed, but this is probably an underestimate as they could only be scored if they were seen by surveyors or confirmed as present by landowners; swallow holes concealed by winter flooding would not have been scored.

Table 5. Notable features recorded in turlough sites.

Feature	No. of turloughs
Permanent water	47
Evidence of nutrient enrichment	44
Algal paper	42
Discontinued hedges/walls	33
Swallow/Sink holes	30
Drains	28
Strandline	19
Evidence of ecologically unsuitable grazing	13
Limestone pavement within 100 m of turlough	8

3.6 Conservation value of turloughs identified

Determination of a turlough's conservation value was subjective, based on factors such as vegetation community diversity, quality of the habitats (e.g. Annex I habitat) and communities present, size, and presence of rare plants. Forty of the 98 turloughs surveyed were deemed to be of low conservation priority, having a low diversity of vegetation communities and/or species. Generally these occurred in an agricultural context and were small in size. A total of 39 sites were deemed to be of medium conservation priority; in general these had a greater diversity of vegetation communities and sometimes were associated with another Annex I habitat. Seven turloughs were judged to be of high conservation value (Table 6), due to factors such as high community diversity, presence of Annex I habitats, large turlough area, or the presence of rare plants. An additional site, 294 Carrownalecka 2, was not surveyed but from its proximity to site 293, similar context in the landscape and its appearance on aerial photos it is also likely to be a high conservation priority site and is worthy of further study.

Table 6: High conservation priority turloughs surveyed in 2015.

Turlough no.	Turlough name	County	Is it a Turlough?
17	Coolreash East	Clare	Yes
18	Coolreash Lough	Clare	Yes
19	Coolreash South	Clare	Yes
50	Noonan/Lough Reagh	Clare	Unsure
207	Moylough Turlough	Galway	Yes
290	Carrownalecka 2	Mayo	Yes
293	Carrownalecka 1	Mayo	Yes

3.7 Associated Annex I habitats

While turloughs are themselves Annex I habitats, the survey showed that they are often associated with, or may incorporate, one or more other Annex I habitats. This is consistent with their occurrence in karstic landscapes in which high conservation value calcareous habitats such as limestone pavement, calcareous grassland, alkaline fen and *Cladium* swamps are more likely to be more frequent. Table 7 lists the Annex I habitats that were found in conjunction with turloughs during the course of this survey, either forming part of the turlough or occurring adjacent to it. Table 8 lists the Annex I habitats that were noted in sites that were not deemed to be turloughs.

Table 7: Annex I habitats associated with turloughs surveyed during 2015. Where Annex I habitats were present adjacent to a turlough, this is indicated as “adj”. All others were within the turlough flood zone. Full names of Annex I habitats are given in Appendix 1.

Turlough no.	Turlough name	County	Annex I habitats	Is it a Turlough?
17	Coolreash East	Clare	7230, 8240	Yes
18	Coolreash Lough	Clare	7210, 7230, 8240	Yes
19	Coolreash South	Clare	7230, 8240	Yes
50	Noonan/Lough Reagh	Clare	8240, 91E0 (both adj)	Unsure
95	Balrobuck Beg 1	Galway	6410, 7210	Yes
97	Balrobuck Beg 3	Galway	6410	Yes
157	Esker	Galway	6210, 8240 (both adj)	Yes
197	Loch Muirbhigh	Galway	6210, 8240 (both adj)	Yes
207	Moylough Turlough	Galway	6410, 7140 (both adj)	Yes
251	Turloughnacrusa	Galway	6210	Yes
259	Edentinny Ballinamore	Leitrim	91E0	Yes
290	Carrowmore	Mayo	6410, 7140, 7210, 7230	Yes
293	Carrownalecka 1	Mayo	6410, 7210, 7230; 6210, 8240 both adj; (Annex II species Marsh Fritillary also present; Daly & Barron, 2015)	Yes
296	Cashel	Mayo	7230	Yes
298	Coolisduff A	Mayo	6410	Yes
332	Moran's Turlough	Mayo	6510	Yes
364	Kilmactrasna B	Monaghan	91E0	Unsure
415	Knockroe	Roscommon	6510 (adj)	Yes
518	Mullaghmeen Forest 6	Westmeath	91E0 (adj)	Yes

Table 8: Annex I habitats associated with non-turlough sites visited during 2015. Annex I codes are according to the EU Interpretation Manual (CEC, 2013).

Site no.	Site name	County	Annex I habitats
52	Poulaohyle Lough	Clare	7210
58	Rosslevan	Clare	7210
87	Ballyfruit	Galway	91E0
174	Horseleap	Galway	6210
198	Lough Aunaculaskey	Galway	7140, 6410, 91E0
261	Lough Nahoo	Leitrim	7140, 91E0
287	Carheens/Funshinaugh	Mayo	7230
336	Pollbeg Turlough	Mayo	7230

Table 8 (ctd.)

Site no.	Site name	County	Annex I habitats
365	Monaltyduff/Monalty	Monaghan	91E0
368	Annaghmore Lough	Roscommon	7230
377	Black Lake	Roscommon	91E0
405	Fin Lough	Roscommon	91E0
453	Lough Labe	Sligo	91E0
553	Piggotstown 2	Meath	6430
555	Piggotstown/Lakefield	Meath	6430

4 Discussion

In general, the condition of the turloughs surveyed was good. However, many were located within a moderately intensive agricultural landscape, which decreased their conservation value accordingly. Most were grazed periodically by cattle or horses, with only 13 cases of overgrazing noted. Some severe instances of nutrient enrichment were seen, which may have been due to overgrazing, fertiliser application, or run-off of nutrients from other sources not apparent at the time of the survey. However, many of the landowners spoken to were very aware of the vulnerability of the water table to pollution in the vicinity of turloughs and said that they refrained from applying fertiliser or manure in these areas.

In terms of conservation value, only seven turloughs were deemed by the surveyors to be of high conservation value, with a further 41 sites (40% of turloughs surveyed) given a medium conservation value rating. This is consistent with the fact that this survey has taken place after most of the high conservation value turloughs throughout the country have already been identified and studied.

The grid references provided for the potential turloughs were found to be accurate in the majority of cases. A number of generally small adjustments were made to some grid references to bring the point closer to the centre of the turlough, improving the accuracy of the data. However, one site, 491 (identified on NPWS's turlough shapefile as 491_2014) Boherdotia, was found to have an incorrect Irish Grid northings value, with the grid reference for the point putting the turlough in Co. Tipperary instead of Co. Limerick. The correct point was located by converting the ITM grid reference, which was also provided, back to Irish Grid. This site was a high priority site for survey as it would have extended the range for the habitat. After the field survey, however, the site was found not to be a turlough. It should be noted that there is a confirmed turlough on NPWS's turlough shapefile with a similar number to this site: site 3180_491, which is in Monaghan (site name Monaghan CoCo ID 29).

At the outset of the project the decision was made to discuss turlough site characteristics with the owners of the land in which it was located and other local residents. Older residents in particular were found to be extremely knowledgeable. The survey was well received by local people, who generally displayed an interest in local turloughs as a feature of the cultural landscape and did not appear to associate them negatively with concerns about agricultural accounting e.g. Single Farm Payments. While evidence on the ground was the final arbiter of whether the feature was a turlough or not, the information supplied by locals provided additional temporal or seasonal data to the surveyors that a single day's survey would not have provided.

5 Conclusions

This survey has provided additional information on the range, distribution and extent of Annex I habitat *3180 Turloughs. It has extended the range of known turloughs by at least seven hectads. It has provided additional information on the surveyed turloughs which should help to determine their

importance in the national context (e.g., area, vegetation community types, features and species of interest present). Finally, it has contributed data that will be utilised in the next National Conservation Status Assessment Article 17 reporting for Annex I habitat *3180 Turloughs.

6 References

- CEC (Commission of the European Communities) (2013) *Interpretation manual of European Union habitats*. EUR 28. European Commission, DG Environment.
- Daly, O.H. & Barron, S.J. (2015) Surveys of possible Marsh Fritillary sites and habitat in Cos. Galway and Mayo. Unpublished report for NPWS.
- Lyons, C. (2010) Study to identify practical measures to address flooding on the Clare River. Report by Ryan Hanley to the Office of Public Works.
- NPWS (2013) The status of EU protected habitats and species in Ireland. Volume 2. Habitat Assessments. Version 1.1. Unpublished report. National Parks & Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin.
- O'Connor, W. (2015) River Clare: A highly modified Natura 2000 river.
<http://ecofactireland.com/2015/05/08/river-clare-drainage-scheme/>
- Working Group on Groundwater (2004) Guidance on the assessment of pressures and impacts on groundwater dependent terrestrial ecosystems, Risk Assessment Sheet GWDTERA2a – Turloughs. WFD Pressures and Impacts Assessment Methodology, Guidance Document no. GW9. Working Group on Groundwater, Sub-committee on Turloughs. www.wfdireland.ie.

Appendix 1: Full names of Annex I habitats noted during this survey. Codes and names are according to the EU Interpretation Manual (CEC, 2013). An asterisk * beside the name indicates a priority habitat.

Annex I habitat code	Annex I habitat name
3180	* Turloughs
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>)
6410	<i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels
6510	Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>)
7140	Transition mires and quaking bogs
7210	*Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>
7230	Alkaline fens
8240	* Limestone pavements
91E0	* Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)

Appendix 2: Photographs of the data elements from the survey.
The full image filename is given below each photograph.



NTSV14_Photo_251_1_JM_01a.jpg
1 Limestone grassland



NTSV14_Photo_018_2_FON_01a.jpg
2 Flooded pavement



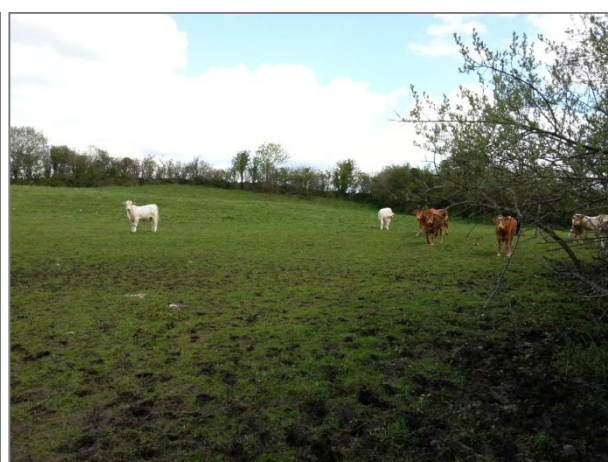
NTSV14_Photo_534_3_FON_01a.jpg
3 Woodland/Scrub



NTSV14_Photo_009_3a_JM_01a.jpg



NTSV14_Photo_460_4_FON_01a.jpg
4 *Lolium* grassland



NTSV14_Photo_023_4_JM_01a.jpg



NTSV14_Photo_304_6a_JM_01a.jpg



NTSV14_Photo_304_23a_JM_01a.jpg
(site 304 overview)

6 Fen

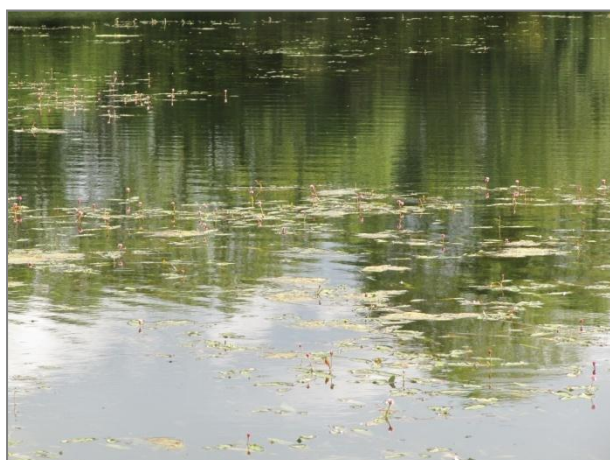


NTSV14_Photo_005_7_JM_01a.jpg



NTSV14_Photo_543_7_JM_01a.jpg

7 *Eleocharis palustris* – *Ranunculus flammula* community

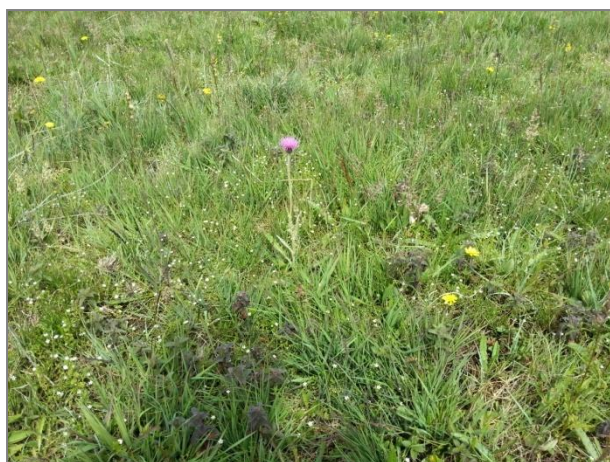


NTSV14_Photo_276_8_FON_01a.jpg



NTSV14_Photo_302_8_FON_01a.jpg

8 *Polygonum amphibium* community



NTSV14_Photo_095_9_JM_01a.jpg
9 *Molinia caerulea* – *Carex panicea*
community



NTSV14_Photo_090_10_FON_01.jpg
10 Grass/forb-dominated community



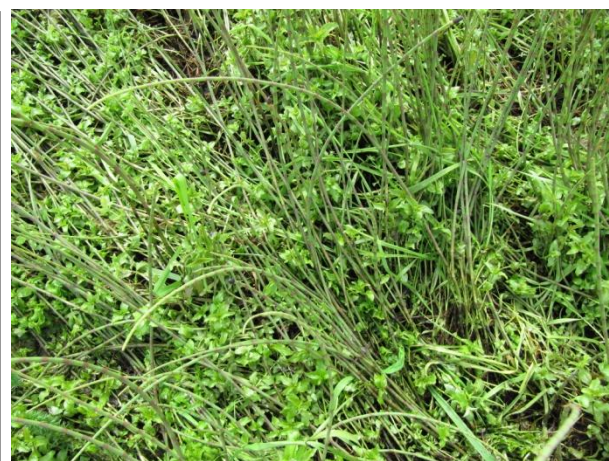
NTSV14_Photo_004_10_JM_01a
10 Grass/forb-dominated community



NTSV14_332_11_JM_01a.jpg
11 Aquatic macrophyte community



NTSV14_Photo_293_12_FON_01a.jpg
12 Charophyte community



NTSV14_Photo_207_121_FON_01a.jpg
12.1 Other community



NTSV14_Photo_009_131_JM_01a.jpg
13.1 *Potentilla fruticosa*



NTSV14_Photo_017_132_JM_01a.jpg
13.2 *Frangula alnus*



NTSV14_Photo_004_136_JM_01a.jpg
13.6 *Cinclidotus fontinaloides*



NTSV14_Photo_371_FON_01a.jpg



NTSV14_Photo_197_14_FON_01a.jpg
14 Limestone pavement within 100m



NTSV14_Photo_022_15_FON_01a.jpg
15 Swallow/sink holes



NTSV14_Photo_037_15_JM_01a.jpg
15 Swallow/sink holes



NTSV14_Photo_207_16a_FON_01a.jpg
16 Permanent/Open water



NTSV14_Photo_022_17_FON_01a.jpg
17 Drains



NTSV14_Photo_019_18_FON_01a.jpg
18 Discontinued hedges/walls



NTSV14_Photo_040_18_JM_01a.jpg
18 Discontinued hedges/walls



NTSV14_Photo_019_19_JM_01a.jpg
19 Strandline



NTSV14_Photo_560_20_FON_01a.jpg
20 Algal paper



NTSV14_Photo_531_21_JM_01a.jpg
21 Evidence of nutrient enrichment



NTSV14_Photo_560_21_FON_01a.jpg
21 Evidence of nutrient enrichment



NTSV14_Photo_021_22_FON_01a.jpg
22 Evidence of ecologically unsuitable grazing



NTSV14_Photo_469_22b_FON_01a.jpg
22 Evidence of ecologically unsuitable grazing



NTSV14_Photo_385_22_DD_01a.jpg
22 Evidence of ecologically unsuitable grazing

Appendix 3: Data sheet used in the survey. Numbered data elements were photographed when present.

	Turlough number		
	Turlough name		
	Recorders		
	Field survey date		
	Is it a Turlough? (Y / N / Unsure-requires winter visit)		
	Brief description & reason for decision (2-3 sentences)		
	(FILL IN ONLY IF IT IS A TURLOUGH)		
	Part of complex of turloughs?		
	Grid reference (approximate centroid)		
	Approximate area ha		
	Predominant substrate (Mineral/Organic/Marl)		
	Predominant basin condition (Dry/Damp/Flooded)		
	Number of land parcels		
	Vegetation communities	Approximate percentage	Photo no(s).
1	Limestone grassland		
2	Flooded pavement		
3	Woodland/scrub		
4	<i>Lolium</i> grassland		
5	<i>Eleocharis acicularis</i> community		
6	Fen community		
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community		
8	<i>Polygonum amphibium</i> community		
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community		
10	Grass/forb-dominated community		
11	Aquatic macrophyte community		
12	Charophyte community		
12.1	Other (describe)		
12.2	Other (describe)		
		Tick	Photo no(s).
	Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>		
13.2	<i>Frangula alnus</i>		
13.3	<i>Teucrium scordium</i>		
13.4	<i>Viola persicifolia</i>		
13.5	<i>Limosella aquatica</i>		
13.6	<i>Cinclidotus fontinaloides</i>		
13.7	Other (including invertebrates)		
	Notable features (tick if present)	Tick	Photo no(s).
14	Limestone pavement within 100 m of turlough		
15	Swallow/Sink holes		
16	Permanent/Open water		
17	Drains		
18	Discontinued hedges/walls		
19	Strandline		
20	Algal paper		
21	Evidence of nutrient enrichment		
22	Evidence of ecologically unsuitable grazing		
23	Overview photo nos.		
	Comments on condition (2-3 sentences)		
	Comments on conservation value (2-3 sentences)		

Summary of findings from the Survey of Potential Turloughs 2015

Report for:
NPWS, 7 Ely Place, Dublin 2

VOLUME II: Site Reports



Overview of partially flooded turlough at Site 23 Drumcaran 3/Loughvella, Co. Clare.
Photo by J. Martin.

November 2015

F.H. O'Neill & J.R. Martin



Botanical, Environmental & Conservation Consultants Ltd.
43 Herbert Lane, Dublin 2, D02 TE86
Tel: 01 6619713

Website: www.botanicalevironmental.com

Email: info@botanicalevironmental.com



DOCUMENT CONTROL SHEET

Client	NPWS. Project Officer: Deirdre Lynn
Project title	Survey of Potential Turloughs
Project number	PRJ109
Document title	Summary of findings from the Survey of Potential Turloughs 2015. Volume II: Site Reports
Citation	O'Neill, F.H. & Martin, J.R. (2015). Summary of findings from the Survey of Potential Turloughs 2015. Unpublished Report for National Parks & Wildlife Service. Volume II: Site Reports

Author(s)	Reviewed by	Approved by	Version	Issue date
F. O'Neill, J. Martin	J. Martin	J. Martin	Final 1.0	23/11/2015

Table of Contents

VOLUME I: Main Report

1	Introduction	1
2	Methodology.....	1
3	Results.....	3
4	Discussion	8
5	Conclusions	8
6	References	9
Appendix 1:	Full names of Annex I habitats noted during this survey	10
Appendix 2:	Photographs of the data elements from the survey.	11
Appendix 3:	Data sheet used in the survey	17

VOLUME II: Site Reports

Volume II: Site reports

This volume contains the field reports of all 180 potential turlough sites surveyed in 2015, plus two additional sites (site numbers 156 and 294) included at the end of this document that were not surveyed in full but which are, or are likely to be, turloughs. These site reports were compiled directly from the Microsoft Excel spreadsheet that forms the main deliverable of this project.

	Turlough number	2
	Turlough name	Ballyallaban Ballyvaughan
	Recorders	JM/FON
	Field survey date	04/06/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes this is a turlough as it floods from groundwater and empties to groundwater. Sink holes were seen on site. The landowner said that although flooding can be extensive, the land rarely floods for longer than two weeks at a time. The land has been agriculturally improved and there is little vegetation community diversity, with <i>Lolium</i> grassland dominating and a grass-forb community (<i>Alopecurus geniculatus</i> / <i>Rumex</i> sp.) present in wetter areas.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	122415 205540
	Approximate area ha	9
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	7

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	97
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	3
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓

13.7	Other (including invertebrates)	
------	---------------------------------	--

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Poor
	Comments on condition	The turlough is in poor condition as the semi-natural vegetation communities have all been improved. However, there is little evidence of nutrient enrichment and no signs of overgrazing.
	Conservation value	Low
	Comments on conservation value	The site is of low conservation value. No rare plants were recorded. There is hardly any variation in vegetation communities, as the site is entirely composed of agricultural grassland, as is the majority of the adjacent habitat.

	Turlough number	4
	Turlough name	Ballybreen
	Recorders	JM/FON
	Field survey date	01/05/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough characterised by numerous swallow holes, with the water coming up through these in winter and draining away through them and an old drain in early summer. The basin is flat and extends across approximately 600 m. Cover of docks (<i>Rumex</i> spp.) is higher on the north side of the drain (drain was infilled significantly and may only drain off the last remnants of surface water). Little vegetation zonation is evident. <i>Ranunculus repens</i> -dominated grassland transitions to fen or an <i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community. Water had receded about a week before the survey took place. The north side could not be surveyed as there was a bull present and access was denied by the landowner for health and safety reasons. Percentage cover of vegetation communities is based on what could be seen / walked through, given limited access. It was assumed to be similar on the other side but this may not be the case.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	117000 193800
	Approximate area ha	9
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	10

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	3
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	15
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	82
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	

Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	Ducks, geese, swans over winter

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	✓
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	✓
18	Discontinued hedges/walls	
19	Strandline	✓
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	This turlough is in good condition overall. There was very little algal growth evident. Docks (<i>Rumex</i> spp.) were locally abundant on the north side indicating probable nutrient enrichment but this was much less evident in the south. There was an appropriate level of grazing. Conifer forestry is present at the extreme western end of the turlough.
	Conservation value	Medium
	Comments on conservation value	This turlough is of medium conservation value. No rare plants were recorded. The swallow holes are a good feature. This is a good-sized turlough with some diversity of vegetation communities. Despite being generally in an agricultural area, the habitats are semi-improved grassland rather than improved agricultural grassland. Limestone pavement is present close to turlough

	Turlough number	5
	Turlough name	Ballyduff
	Recorders	JM/FON
	Field survey date	02/06/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. Flooding comes from a nearby river that runs under the turlough and comes up from underneath in winter and after heavy rain. A nearby swallow hole helps drain it, but percolation through the soil to groundwater also occurs, according to the landowner. Zonation of vegetation communities was noted, as follows: Grass-forb community (<i>Alopecurus pratensis</i> / <i>Ranunculus repens</i> / <i>Potentilla anserina</i>) to fen (<i>Carex nigra</i> / <i>Ranunculus repens</i> to <i>Carex nigra</i> / <i>Equisetum fluviatile</i>) to swamp (<i>Equisetum fluviatile</i> / <i>Menyanthes trifoliata</i>). Some areas are dominated just by <i>Carex nigra</i> or by <i>Equisetum fluviatile</i> . A <i>Carex nigra</i> / <i>Eleocharis palustris</i> intermediate community also occurs. <i>Carex nigra</i> is tussocky in one parcel which was more flooded at the time of the survey than other parts of the site. According to the landowner, this turlough mostly dries out in summer, though some areas remain damp ("soft") all year round.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	136130 181620
	Approximate area ha	1.5
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	3

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	65
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	5
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	15
11	Aquatic macrophyte community	<1
12	Charophyte community	
12.1	Other (please specify)	15 (<i>Equisetum fluviatile</i> / <i>Menyanthes trifoliata</i>)
12.2	Other (please specify)	
12.3	Other (please specify)	

Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	This turlough is in good condition. No algal growth was seen, nor were there any other signs of nutrient enrichment. Appropriate grazing takes place around the edges of the turlough. No drains were present on site.
	Conservation value	Medium
	Comments on conservation value	The site is of medium conservation value. There is a good diversity of vegetation communities. No rare plants were recorded. There is an unusual mix of communities and high cover of sedges, with the main communities being semi-natural fen rather than agricultural in character. No pollution or nutrient enrichment was recorded.

	Turlough number	6
	Turlough name	Ballymachill Lough
	Recorders	JM/FON
	Field survey date	02/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough but a deep permanent lake surrounded by swamp (FS1, FS2), scrub (WS1) and wet woodland (WN6). This lake apparently used to have roach and pike in the past, but this is no longer the case.

	Turlough number	8
	Turlough name	Ballymacloon Lough
	Recorders	JM/FON
	Field survey date	28/04/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough, on the basis of the drain/stream that flows out of the lake, and the presence of permanent water within the lake. According to a local resident the water level of the lake (FL3 or FL4) goes up and down but it never dries fully. Reed and sedge swamp (FS1) around the periphery indicates permanently waterlogged conditions. This swamp consists of Phragmites australis and a large tussock-forming Carex sp. (C. elata?). It appears that the lake is probably fed by a spring as no obvious surface water source is evident.

	Turlough number	9
	Turlough name	Ballyvaughan Turlough
	Recorders	JM
	Field survey date	12/08/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough, with the landowner confirming that the land floods from groundwater in the winter and is usually dry in the summer. The turlough also fills via a drain leading from another turlough in the area and empties via a drain into a ponding area that the farmer maintains to help drain the pasture. Vegetation zonation is from scrub (<i>Rhamnus cathartica</i>) to <i>Lolium</i> grassland to grass-forb community (<i>Agrostis stolonifera</i> / <i>Ranunculus repens</i>). Small areas of grass-forb are not grazed and broadleaved herbs dominate, such as <i>Filipendula ulmaria</i> and <i>Lythrum salicaria</i> .

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	122300 207100
	Approximate area ha	5
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	4

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	25
4	<i>Lolium</i> grassland	55
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	20
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	✓
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	

13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	✓
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition. It consists of cattle pasture with half the site improved agricultural grassland. Approximately 25% of the site is scrub with <i>Rhamnus</i> frequent. There are areas amongst the scrub where the rare plant species <i>Potentilla fruticosa</i> is found. The farmer prevents grazing in these areas to allow this rare species to grow.
	Conservation value	Low
	Comments on conservation value	The site is of low conservation value as the majority of the site is agricultural grassland. The rare plant <i>Potentilla fruticosa</i> is found within the turlough, a small population of around 30 plants was observed. Adjacent habitats include woodland scrub and agricultural grassland.

	Turlough number	10
	Turlough name	Ballyvelaghan
	Recorders	JM/FON
	Field survey date	04/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough as the majority of the site remains inundated throughout the year, forming swamp (FS1). The wetland area is filled via groundwater and some surface water and it drains into an underground stream that empties into the sea. According to a person working across from the wetland, the water level does drop so that very little standing water is visible at certain times of the year.

	Turlough number	12
	Turlough name	Cappagh Lough
	Recorders	JM/FON
	Field survey date	02/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough but rather is a permanent lake. This was confirmed by a neighbour of the landowner; we were unable to contact the landowner himself.

	Turlough number	13
	Turlough name	Cappagh Lough North
	Recorders	JM/FON
	Field survey date	02/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough but rather is a permanent lake. Since the new road (N18) was built, the landowner said that the lake does not drop as much as it used to. He used to graze cattle when the water went down, but now the water remains high. According to another local, the area was always a lake that never dried.

	Turlough number	16
	Turlough name	Cloonleen Lough
	Recorders	JM/FON
	Field survey date	03/06/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough flooded from springs in an associated permanent lake. There is a stream into the lake that sometimes dries out, and the landowner said that the stream out of the lake used to be underground but was dug out to drain the area in the 19th century. The seasonally flooded area is four times larger than the permanent water. There is good vegetation community diversity, with grass-forb (<i>Agrostis stolonifera</i> / <i>Ranunculus repens</i>) grading to aquatic macrophyte communities (<i>Carex vesicaria</i> / <i>Mentha aquatica</i> / <i>Equisetum fluviatile</i> or <i>Phalaris arundinacea</i> / <i>Equisetum fluviatile</i> to <i>Equisetum fluviatile</i> / <i>Hippuris vulgaris</i>) to permanent water with <i>Schoenoplectus lacustris</i> .

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	Y
	Grid reference	134100 182520
	Approximate area ha	8
	Predominant substrate	Mineral with marl
	Predominant basin condition	Flooded
	Number of land parcels	8

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	65
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	5 (<i>Equisetum fluviatile</i> / <i>Hippuris vulgaris</i>)
12.2	Other (please specify)	15 (<i>Carex vesicaria</i> / <i>Mentha aquatica</i> / <i>Equisetum fluviatile</i>)
12.3	Other (please specify)	15 (<i>Phalaris arundinacea</i> / <i>Equisetum fluviatile</i>)
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	

13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	Greater pond snail, damselflies, hare

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	✓
20	Algal paper	✓
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition. No nutrient enrichment was noted (only a very small amount of algal growth). The area is appropriately grazed by horses and cattle with fencing preventing the cattle from poaching wetter ground.
	Conservation value	Medium
	Comments on conservation value	The site is of medium conservation value. No rare plants were recorded. There is good vegetation community diversity. Adjacent habitats include agricultural grassland (GA1), WN2 (Fraxinus woodland) and WL2 (treelines). The site is part of a larger complex that may warrant further study. A large number of damselflies were seen on site.

	Turlough number	17
	Turlough name	Coolreash East
	Recorders	JM
	Field survey date	04/06/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough as it floods from groundwater in winter, some areas to 3m deep but many areas are shallower, 0.5 to 1 m. When visited, most of the basin was dry. The turlough has one main linear basin and at least another seven smaller basins. A large <i>Potentilla fruticosa</i> population is associated with the turlough, with parts of the population extending below the winter flood line. Many sinkholes were seen within the turlough. Zonation is as follows: <i>Potentilla fruticosa</i> to fen (<i>Carex nigra</i> / <i>Carex hostiana</i> / <i>Cirsium dissectum</i> / <i>Succisa pratensis</i> or <i>Carex nigra</i> / <i>Mentha aquatica</i>) to aquatic macrophytes (<i>Ranunculus cf. aquatilis</i>).

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	Y
	Grid reference	133300 194390
	Approximate area ha	18
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	7

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	20
3	Woodland/scrub	5
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	72
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	1
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	1 (<i>Ranunculus aquatilis</i>)
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	✓
13.2	<i>Frangula alnus</i>	✓
13.3	<i>Teucrium scordium</i>	

13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	Tadpoles, hare

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	✓
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	✓
20	Algal paper	✓
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition. There are few signs of nutrient enrichment and just a little cattle poaching around a gate in the northeast of the site. There is a tractor track through the site but it has a minor impact. A population of around 50 goats was seen on the edge of the turlough.
	Conservation value	High
	Comments on conservation value	The site is a high conservation priority, with rare plants present including <i>Frangula alnus</i> and <i>Potentilla fruticosa</i> . The vegetation community diversity is not particularly high as the fen communities dominate. Much of the fen has brown mosses and therefore is the Annex I habitat 7230 Alkaline fen. There are also areas of Limestone pavement habitat (Annex I 8240) within the turlough. Adjacent habitats are mostly limestone pavement and scrub, with some agricultural grassland.

	Turlough number	18
	Turlough name	Coolreash Lough
	Recorders	FON
	Field survey date	04/06/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a large turlough, flooding from groundwater in winter. There is an area of permanent water associated with it. The turlough was damp at the time of the survey. The main vegetation community on site is fen, of two types: mainly <i>Juncus acutiflorus</i> /brown mosses/ <i>Hydrocotyle vulgaris</i> , but also in north and east parts there is an ungrazed <i>Molinia</i> sward (some <i>Carex nigra</i> and <i>Schoenus nigricans</i> occurs through this also), with high litter cover from last year's growth. A horse grazes the wetter fen to the west and south, with old cattle dung seen in the drier <i>Molinia</i> fen. A small area of grass-forb community (<i>Agrostis stolonifera</i> / <i>Caltha palustris</i> / <i>Mentha aquatica</i>) is also present to the south. The zonation is from this grass-forb community to fen to aquatic macrophytes(<i>Hippuris vulgaris</i>) to open water with <i>Phragmites australis</i> / <i>Cladium mariscus</i> forming Annex I 7210 <i>Cladium</i> swamp. Several very deep swallow holes were seen, as well as a spring in the southwest. There were signs of a long-established drain which seems to drain water towards turlough 19 Coolreash South. <i>Frangula alnus</i> is present on limestone pavement that periodically floods.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	Y
	Grid reference	132950 194480
	Approximate area ha	6
	Predominant substrate	Organic
	Predominant basin condition	Damp
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	1
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	64
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	29
10	Grass/forb-dominated community	5
11	Aquatic macrophyte community	1
12	Charophyte community	

12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	✓
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	✓
15	Swallow/Sink holes	✓
16	Permanent/Open water	✓
17	Drains	✓
18	Discontinued hedges/walls	✓
19	Strandline	✓
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓ (small and localised)
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The turlough is in good condition, with very low nutrient inputs generally, apart from one area where the water may pool for a time before draining. Grazing levels are generally appropriate, although the eastern <i>Molinia</i> sward could benefit from some light grazing to remove excess leaf litter.
	Conservation value	High
	Comments on conservation value	The site is of high conservation value. <i>Frangula alnus</i> is frequent on site. There is a good diversity of community types, as well as a range of typical turlough features such as swallow holes, discontinuous walls. The whole area is in good condition overall with minimal signs of nutrient enrichment and it is generally appropriately managed. The presence of a number of other Annex I habitats (7210 <i>Cladium</i> swamp, 7230 Alkaline fen and 8240 Limestone pavement) adds further interest and value to the site. Two other turloughs (17 and 18) are adjacent and the three together form a single hydrologically linked complex. An interesting and diverse complex of habitats.

	Turlough number	19
	Turlough name	Coolreash South
	Recorders	JM/FON
	Field survey date	03/06/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough, flooding from groundwater in winter. It was partly flooded at the time of the survey. The area of flooding extends across limestone pavement and fen, much of which is Annex I 7230 Alkaline fen. A diversity of vegetation communities is present, with the fen community dominant. Zonation of vegetation is as follows: woodland/scrub transitioning to fen (<i>Carex nigra</i> / <i>Potentilla anserina</i> or <i>Schoenus nigricans</i> fen) with brown mosses sometimes abundant and with marl deposits visible, grading into aquatic macrophytes (<i>Hippuris vulgaris</i> / <i>Equisetum fluviatile</i> or <i>Schoenoplectus lacustris</i>) or a charophyte community. Flooded limestone pavement with <i>Frangula alnus</i> also occurs among the zones. The landowner noted the presence of springs in the area. This turlough is adjacent to sites 17 and 18. The turlough is extensively grazed by horses. Goat droppings were also seen. Features such as discontinuous walls and sinkholes are present.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	Y
	Grid reference	133000 194200
	Approximate area ha	9
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	3

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	10
3	Woodland/scrub	3
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	76
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	
11	Aquatic macrophyte community	10
12	Charophyte community	1
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	

Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	✓
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	Tadpoles

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	✓
15	Swallow/Sink holes	✓
16	Permanent/Open water	✓ (not permanent)
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	✓
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓ (small and localised)
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The turlough is in good condition, with only very slight algal growth noted in the water. The site is appropriately grazed by a small number of horses and goat droppings were noted.
	Conservation value	High
	Comments on conservation value	The site is of high conservation value. <i>Frangula alnus</i> is frequent on site. There is a good diversity of community types, as well as a range of typical turlough features. The whole area is in good condition overall with minimal signs of nutrient enrichment and it is appropriately managed. Two other turloughs (17 and 18) are adjacent and the three together form a single hydrologically linked complex.

	Turlough number	20
	Turlough name	Deerpark Lough
	Recorders	JM/FON
	Field survey date	28/04/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough, this is a permanent water body, according to a local landowner. The vegetation also implies permanent waterlogged conditions, with extensive reed beds (FS1) around the lake. According to a local landowner, the lake is fed by a spring and an underground stream linking it to Poulahoyle Lough. Deerpark Lough is drained by a canalised stream/ditch.

	Turlough number	21
	Turlough name	Drumcaran 1
	Recorders	JM/FON
	Field survey date	30/04/2015
	Is it a Turlough? (Y / N / U)	U
	Brief description and reason for decision	It is not clear whether this site qualifies as a turlough as the water source is from a temporary surface stream that emerges in fissures in the rocky ridge above the seasonal lake 20 m to the west. The landowner said that there are no springs within the lake but it does empty to groundwater and there is an underground stream that probably runs into site 24 (Drumcliff Ennis). Vegetation zonation is obvious, with <i>Cinclidotus fontinaloides</i> present on the rocks 1.5 m above the current water level (20cm deep). The basin is dry in the summer. Vegetation zonation transitions from scrub (<i>Prunus spinosa</i> / <i>Crataegus monogyna</i>) or <i>Lolium</i> grassland to grass-forb to <i>Myosotis</i> sp. Although mineral soil was observed, the landowner did not mention marl soil in the area.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	130990 179320
	Approximate area ha	2
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	4

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	1
4	<i>Lolium</i> grassland	3
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	1
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	20
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	70 (<i>Myosotis</i> sp.)
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	

13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	✓

	Condition evaluation	Poor
	Comments on condition	The condition of the potential turlough is negatively impacted by nutrient enrichment. The lake is covered in algae. There is also much poaching around the edges of the lake. However, only a small herd of cattle (around six) was seen on the day of survey.
	Conservation value	Low
	Comments on conservation value	This potential turlough is of low conservation value. However there is some vegetation diversity within the turlough basin. No rare plants were recorded during the field survey. Nutrient enrichment was noted. There is agricultural grassland on one side and hazel woodland on boulder limestone pavement on the other side. A winter visit is required to confirm the location of temporary streams that empty into the basin.

	Turlough number	22
	Turlough name	Drumcaran 3/Loughvella
	Recorders	JM/FON
	Field survey date	30/04/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, Loughvella is a turlough. The turlough basin is flooded for part of the year and dry for the remainder. The basin was dry at the time of the survey. The field survey confirmed that several springs fill the basin and several swallow holes empty it. At least one of the larger springs feeds a permanent stream that runs through the centre of the turlough. The stream eventually enters the groundwater but initially empties into a man-made culvert built to take water under the road and away from buildings. Zonation of vegetation communities was noted within the turlough basin, with a scrub community (<i>Rhamnus/Crataegus</i>) on the higher ground and then as you move into the basin a grass/forb-dominated community (<i>Agrostis stolonifera/Ranunculus repens</i>) and a fen community (<i>Carex nigra</i>) and at the bottom of the basin an aquatic macrophyte/swamp community (<i>Carex vesicaria</i> or <i>Eleocharis palustris</i> swamp).

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	131300 178700
	Approximate area ha	15
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	9

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	1
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	45
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	1
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	52
11	Aquatic macrophyte community	1
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	

Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	Crayfish, eel reported - not seen during survey

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	✓
18	Discontinued hedges/walls	✓
19	Strandline	✓
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	The condition of the turlough is negatively impacted by nutrient enrichment, especially in the north-eastern section. Generally the grazing level across the site appears to be appropriate. There are multiple drains within the turlough but they probably have little impact, except in helping to drain off standing water once the water level has dropped in April/May. The main landowner (Michael McMahon) is interested in the management of the site and tries to farm sensitively within the turlough basin with low/no fertiliser inputs. He asked to be contacted if the site is visited again.
	Conservation value	Medium
	Comments on conservation value	This turlough is of medium conservation value. No rare plants were recorded during the field survey. Adjacent habitats are mostly agricultural grassland, with some built land. This is a relatively large site with some diversity of habitats, including a stream running through the centre. The landowner said that there are crayfish and eels within the stream but neither were observed during the field survey. Multiple springs and swallow holes are a feature of the site.

	Turlough number	23
	Turlough name	Drumcaran 4/Loughvella
	Recorders	JM/FON
	Field survey date	30/04/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough as the basin is fed and emptied by groundwater according to the landowner. The basin was almost empty at time of survey. High water mark appears to be approximately 2 m higher than at the time of survey. The landowner said that some of the water running through the site is piped away to the southeast from the petrol station to the west (in the area of site 22) but this site (23) still functions as a turlough. Vegetation zonation transitions from scrub or <i>Lolium</i> grassland to a grass-forb community (<i>Agrostis stolonifera</i> / <i>Ranunculus repens</i>) to a flooded basin (some areas of which are probably permanently flooded). There is also a <i>Filipendula ulmaria</i> -dominated grass-forb community (<i>F. ulmaria</i> / <i>Phalaris arundinacea</i>) in a drier area to the north, towards the housing development. There are many <i>Cinclidotus</i> -covered boulders on site.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	132085 178906
	Approximate area ha	4
	Predominant substrate	Mineral
	Predominant basin condition	Damp
	Number of land parcels	5

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	1
4	<i>Lolium</i> grassland	5
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	94
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	

13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	Water flea (Daphnia) abundant

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Poor
	Comments on condition	The condition of the potential turlough is negatively impacted by nutrient enrichment. There is a lot of algal growth. Daphnia were present in such large numbers at the time of the survey that they made the water appear silty or turbid. The area is grazed by cattle (10-12 at the time of survey). There is a small amount of poaching but the site is generally not overgrazed.
	Conservation value	Low
	Comments on conservation value	This turlough is of low conservation value. No rare plants were recorded during the field survey, although Rhamnus is present. There is only one main vegetation type, a grass-forb community. The adjacent fields are mostly agricultural grassland or semi-improved dry grassland.

	Turlough number	24
	Turlough name	Drumcliff Ennis
	Recorders	JM/FON
	Field survey date	30/04/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	This is no longer a functioning natural system as machinery has been used to dig out sections of the site and extensive bare ground and a spoil heap were observed. There was open water at the time of the visit and a local landowner said that this lake was fed via an underground stream linked to turlough 21.

	Turlough number	30
	Turlough name	Inishmore 1
	Recorders	JM/FON
	Field survey date	29/04/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. A local man living between this site and site 31 said this lake and site 31 are entirely fed by surface water from the overflow of Inishmore River to the north. This site is situated along the old channel of the river before it was diverted (possibly during famine times). When the main river floods in winter, water runs along the old channel through sites 30 and 31. When the river drops again, the water levels also drop. A permanent lake remains all year round but is infilling with vegetation and is silted up. There are no obvious characteristics of a turlough. It would appear that groundwater inputs, if any, are a minor contribution to the flooding at this site.

	Turlough number	31
	Turlough name	Inishmore 2
	Recorders	JM/FON
	Field survey date	29/04/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. A local man living between this site and site 30 said this lake and site 30 are entirely fed by surface water from the overflow of Inishmore River to the north. This site is situated along the old channel of the river before it was diverted (possibly during famine times). When the main river floods in winter, water runs along the old channel through sites 30 and 31. When the river drops again, the water levels also drop. A permanent lake remains all year round but is infilling with vegetation and is silted up. There are no obvious characteristics of a turlough. It would appear that groundwater inputs, if any, are a minor contribution to the flooding at this site.

	Turlough number	33
	Turlough name	Killeany
	Recorders	JM
	Field survey date	12/08/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. Where the original point is, there are no signs of flooding or turlough features, just wet grassland with <i>Filipendula ulmaria</i> , <i>Juncus effusus</i> , <i>Holcus lanatus</i> and <i>Ranunculus repens</i> . However, 150 m to the southwest, there are swallow holes and other turlough features such as <i>Cinclidotus fontinaloides</i> . The landowner seemed to indicate that the area around the original point does flood, so the area of the turlough basin may be greater, but this flooding is probably not very deep, probably less than 30 cm. The turlough seems small because once it gets too high in winter, it fills the (now dry) river bed and links into the Killeany River. At the time of the site visit this river source was a large spring/underground stream 50 m southwest of the turlough. The small turlough basin has little vegetation zonation, with two grass-forb communities grading into each other (<i>Alopecurus pratensis</i> / <i>Trifolium repens</i> to <i>Potentilla anserina</i> / <i>Ranunculus repens</i> / <i>Carex</i> sp.).

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	116430 200790
	Approximate area ha	0.05
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	100
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	

12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

	Notable features (tick if present)	
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	✓
17	Drains	✓ (stream - dry at time of visit)
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition. Cattle grazing occurs on site but only a small suckler herd was present on the day of the visit.
	Conservation value	Low
	Comments on conservation value	The site is of low conservation value. No rare plants were recorded. The turlough basin is very small as the basin empties into the river to the south once flooding reaches a certain height. Adjacent habitats include semi-natural wet grassland and exposed limestone rock (not limestone pavement).

	Turlough number	37
	Turlough name	Knocknagroach
	Recorders	JM
	Field survey date	12/08/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough, flooded by a combination of groundwater and temporary streams leading from other turlough basins, according to the landowner. The whole basin was flooded two weeks before the survey during recent wet weather. The turlough empties to groundwater via a drain that leads to the sea. There is some vegetation diversity with zonation from sycamore-hazel woodland to <i>Lolium</i> grassland to a grass-forb community (mostly <i>Agrostis stolonifera</i> / <i>Ranunculus repens</i> but also some areas of <i>Elytrigia repens</i> / <i>Ranunculus repens</i>).

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	122800 206850
	Approximate area ha	9
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	5

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	5
4	<i>Lolium</i> grassland	15
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	80
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	

13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	✓
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition. Grazing was restricted by flooding at the time of the visit. Beef cattle (suckler herd with a bull) were on the land at the time of the visit.
	Conservation value	Low
	Comments on conservation value	The site is of low conservation value. No rare plants were recorded. There is limited vegetation diversity, with most of the site and adjacent habitat agricultural grassland.

	Turlough number	40
	Turlough name	Lough Avagher
	Recorders	JM/FON
	Field survey date	29/04/2015
	Is it a Turlough? (Y / N / U)	U
	Brief description and reason for decision	<p>Unsure if this is a turlough or not, but turlough characteristics are present including seasonal flooding in winter and emptying to an underground stream/river to the east. The permanent lake in the centre remains; this is very deep and probably fed by a spring to maintain water throughout the year. Some surface water inputs occur after rainfall from a stream to the west, but seasonal water remains for some months. Therefore this appears to be a complex of a large body of permanent water and a turlough. A number of grass-forb communities are present on site, with <i>Ranunculus repens</i>/<i>Iris pseudacorus</i>/<i>Phalaris arundinacea</i> grading into <i>Agrostis stolonifera</i>/<i>Rumex crispus</i>, and finally to <i>Filipendula ulmaria</i>. This grades further into a fen community (<i>Carex nigra</i>/<i>Senecio aquaticus</i>/<i>Calliergonella cuspidata</i>/<i>Hydrocotyle vulgaris</i>), and finally to a <i>Polygonum amphibium</i> community. Vegetation communities listed do not include the vegetation at the lakeside. Pike and perch are present in the lake. The uncertainty of the status stems from the fact that the "turlough" fills from the lake rather than from groundwater, but the lake itself is fed by groundwater.</p>

(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
Part of a complex of turloughs?	N
Grid reference	134080 187880
Approximate area ha	6 (excluding 1 ha of permanent water)
Predominant substrate	Mineral
Predominant basin condition	Damp
Number of land parcels	6

Vegetation communities (%)		
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	3
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	10
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	87
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	

12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	Nutrient enrichment is apparent in this site as algal growth. The area is appropriately grazed by horses and cattle (kept in separate land parcels). No other threats were noted.
	Conservation value	Medium
	Comments on conservation value	The feature is of medium conservation value. There is a diversity of vegetation communities and the site is relatively large and spread over several land parcels. No rare plants were noted. Improved agricultural grassland is adjacent to the feature. Field boundaries are traditional stone walls.

	Turlough number	50
	Turlough name	Nooan/Lough Reagh
	Recorders	JM/FON
	Field survey date	29/04/2015
	Is it a Turlough? (Y / N / U)	U
	Brief description and reason for decision	This is a large seasonally flooded area. Unsure if it is a turlough as we are uncertain how much the groundwater contributes to its flooding and drainage. A stream flows through the southwestern tip of the permanent lake but possible springs were identified, and we would postulate that the groundwater, probably through a series of springs, contributes to the flooding of the permanent lake and the surrounding turlough. Further studies are required to ascertain the hydrology of the system. Zonation within the system is from Cinclidotus-covered rocks to an Agrostis stolonifera-Ranunculus repens grass-forb community, often in mosaic with Carex nigra fen. Then it goes to a wetter Carex vesicaria swamp and finally to Phragmites australis and some permanent water.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	132270 185309
	Approximate area ha	15 (excluding permanent lake)
	Predominant substrate	Organic
	Predominant basin condition	Damp
	Number of land parcels	5

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	25
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	35
11	Aquatic macrophyte community	40
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	

13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	✓
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair-Good
	Comments on condition	The condition of the turlough is negatively impacted by some nutrient enrichment in the northern section of the site. Generally the grazing level appears to be appropriate and overall the whole system is in good condition.
	Conservation value	High
	Comments on conservation value	This turlough is of high conservation value. No rare plants were recorded during the field survey. Adjacent habitats are mostly semi-natural with WN2 woodland on limestone boulders (corresponding to Annex I habitat *8240) around much of the edge of the turlough basin. This is a relatively large site with a diversity of vegetation communities. The lake at the center of the site is infilling and WN6 Salix sp. alluvial woodland (corresponding to Annex I habitat 91E0) is found within this area. We would recommend this site for further study.

	Turlough number	51
	Turlough name	O'Brien's Big Lough
	Recorders	JM/FON
	Field survey date	02/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough as a large permanent water body remains all year round. There is some fluctuation of water level, with the margins of the lake drying out beyond the reed beds, but the lake remains the dominant feature. The lake is spring-fed. Water outflow may be via a nearby river southwest of the lake. Marl deposits were noted at the lake edge.

	Turlough number	52
	Turlough name	Poulahoyle Lough
	Recorders	JM/FON
	Field survey date	28/04/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough as deep permanent water is retained all year round. A local man said that the lake was surveyed in the 1960s and found to be 177 feet deep. Pike are present. A drain or stream runs from the lake into the Quin river. A very large spring is present which keeps water present all year round, never drying even in very dry summers (according to landowner). Seasonal fluctuation occurs but not to a large extent. The lake is FL3/FL4 with Cladium fen/swamp at the edge (*7210) as well as non-Annex alkaline fen (no brown mosses seen).

	Turlough number	58
	Turlough name	Rosslevan
	Recorders	JM/FON
	Field survey date	03/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough, this is a large complex of wetland communities, including fen (PF1), swamp (FS1, FS2), Annex I 7210 Cladium swamp with some turlough elements present, including fluctuation in water levels (estimated at approximately 2 m) and spring-fed. Ditches are present in several places and the area has been cutover in the past. It used to be farmed, with grazers put onto this area, but this is no longer the case, and reeds have spread since grazing was removed. The four owners no longer use the area agriculturally. The substrate is very peaty and seems to remain very swampy throughout the year. Other possible turloughs may exist nearby and may be hydrologically linked to this wetland.

	Turlough number	69
	Turlough name	Ballyadam (filled)
	Recorders	FON
	Field survey date	08/07/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is no longer a turlough. The original grid reference point only seasonally floods from surface water. A local landowner mentioned a turlough south of her property at 183900 73600 so this was visited as well. It is the site of a now abandoned development (former Amgen site) and is surrounded by security fencing. A landscaper on site confirmed that there are sinkholes and limestone geology in the site. However, the actual feature of interest has been significantly reconfigured by clearance works of several years ago for the former development, and turlough features are no longer extant. Some wet areas remain, and it is likely that the area still floods in winter, judging by the presence of a thick carpet of <i>Calliergonella cuspidata</i> , but flora of disturbed ground are also present, and zonation of vegetation is non-existent, mostly bare or recolonising bare ground. Rabbits abound, as well as stonechats.

	Turlough number	79
	Turlough name	Ballaun
	Recorders	JM/FON
	Field survey date	14/07/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. There is undulating agricultural pasture but no wetland features. It is located beside the River Clare. If a turlough was formerly present, it is likely that this has disappeared, perhaps a consequence of the River Clare drainage. There was no evidence of flooding, no zonation, and no basin present.

	Turlough number	87
	Turlough name	Ballyfruit
	Recorders	JM/FON
	Field survey date	17/09/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough as the two main lakes within this basin are permanent and deep. A local resident (Pat Dunne) said that the area is permanently wet and he and other locals think of it as a complex of permanent lakes and swamp rather than a turlough. He also indicated that in an average winter the water level does not fluctuate much and in wet weather when the basin does flood this is due to the Black River backing up. There is a spring in at least one of the permanent lakes and the lakes are a source for the rivers that flow from them. The hydrology in this basin and the surrounding areas does appear to be quite complex and the Headford office of the OPW have collected data from the area. The Salix woodland within this basin would qualify as the Annex I habitat 91E0.

	Turlough number	90
	Turlough name	Ballynakillew 1
	Recorders	JM/FON
	Field survey date	16/09/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough as a local resident confirmed it dries out in the summer and floods from groundwater in the winter. The basin was flooded at the time of the visit and it did appear as if the river that ran next to the basin had flooded over its banks and contributed to the flooding. It is difficult to ascertain what proportion of flooding in the basin is from groundwater and how much is from the river. Vegetation zonation is from a grass-forb community of <i>Cynosurus cristatus</i> / <i>Trifolium repens</i> to a grass-forb community of <i>Agrostis stolonifera</i> / <i>Potentilla reptans</i> or to fen (<i>Carex nigra</i> / <i>Carex flacca</i> / <i>Hydrocotyle vulgaris</i>).

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	125570 246300
	Approximate area ha	1
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	20
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	80
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	

13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓ (not permanent)
17	Drains	✓
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	The site is in fair condition. There were some signs of nutrient enrichment of adjacent grassland, with <i>Cirsium arvense</i> abundant. Also the adjacent river is very deep and appears to have been dredged to alleviate flooding from surrounding areas.
	Conservation value	Low
	Comments on conservation value	The site is of low conservation status. No rare plants were recorded. Low vegetation diversity is apparent. The site is small, with surface water from the adjacent river contributing to flooding. Adjacent habitat is predominantly agricultural grassland.

	Turlough number	91
	Turlough name	Ballynakillew 2
	Recorders	JM/FON
	Field survey date	16/09/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough, which was flooded at the time of survey. A local resident said that the area floods from groundwater and dries out completely in the summer. Vegetation zonation is from scrub (Rhamnus/Crataegus/Prunus spinosa) or limestone grassland (Carex flacca/Linum cathartica) to a grass-forb community (Agrostis stolonifera/Potentilla anserina/Mentha aquatica).

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	125670 245970
	Approximate area ha	11
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	7

	Vegetation communities (%)	
1	Limestone grassland	10
2	Flooded pavement	
3	Woodland/scrub	1
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	89
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓

13.7	Other (including invertebrates)	
------	---------------------------------	--

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓ (not permanent)
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	The site is in fair condition. Some nutrient enrichment occurs, with areas of dense algal cover seen. There is also some bare ground due to tractor tracks or poaching. Some dumping of old farm equipment has taken place on the edges of the basin.
	Conservation value	Medium
	Comments on conservation value	The site is of medium conservation value. No rare plants were recorded. It is a relatively large site with good vegetation community diversity. Limestone grassland and Rhamnus scrub are of note. Adjacent habitats are mainly agricultural grassland, scrub and dry calcareous or neutral grassland.

	Turlough number	92
	Turlough name	Ballynew
	Recorders	JM/FON
	Field survey date	15/07/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is no longer a turlough as the basin has been dug up as part of improvements that the farmer has undertaken for the field to qualify under the single payment scheme. The basin has been drained, probably since the 19th century, and a photograph was taken of the main drain from the basin.

	Turlough number	94
	Turlough name	Balrobbuck Beg
	Recorders	JM/FON
	Field survey date	15/07/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough as it floods from groundwater in the winter and empties in the summer. The farmer said that a spring in the vicinity of this turlough was used in the past by his family for water. The yard next to the turlough has been built up to prevent flooding. Only three vegetation communities were recorded. A grass-forb community (either a drier <i>Bellis perennis</i> / <i>Plantago major</i> or a wetter <i>Potentilla anserina</i> / <i>Mentha aquatica</i> type) grades into aquatic macrophytes (<i>Sparganium erectum</i> / <i>Potamogeton</i> sp.) and then to permanent water.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	133120 241760
	Approximate area ha	1
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	1

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	95
11	Aquatic macrophyte community	5
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	

13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	✓

	Condition evaluation	Poor
	Comments on condition	This turlough is in poor condition. Although only two horses were grazing the area at the time of the survey, large areas of the site are overgrazed and disturbed. Part of the basin was dug out in the past to aid water extraction and there has been disturbance during the building of the raised yard area.
	Conservation value	Low
	Comments on conservation value	This site is of low conservation value. No rare plants were recorded on this small site. There is very little vegetation community diversity. Adjacent habitats are agricultural grassland and built land.

	Turlough number	95
	Turlough name	Balrobuck Beg 1
	Recorders	JM/FON
	Field survey date	15/07/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. The landowner confirmed that the site floods in winter from groundwater and empties to groundwater in summer. The main area of flooding appears to occur in the southern half of the field. The vegetation community in this area is <i>Molinia caerulea</i> - <i>Carex panicea</i> , most of it 6410 <i>Molinia</i> meadow. Other species here include <i>Mentha aquatica</i> , <i>Linum cathartica</i> and <i>Cirsium dissectum</i> . The northern half seems to be less frequently flooded. The vegetation community is again <i>Molinia caerulea</i> - <i>Carex panicea</i> , with a small area of Annex I 7210 <i>Cladium</i> fen habitat. Some of the <i>Molinia</i> community is towards the grassland end of the spectrum, while some is more fen-like, having <i>Schoenus nigricans</i> . The substrate is peaty throughout.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	132230 241570
	Approximate area ha	2
	Predominant substrate	Organic
	Predominant basin condition	Dry
	Number of land parcels	1

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	1
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	99
10	Grass/forb-dominated community	
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	

13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	✓
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition. There was no evidence of recent grazing at the time of the survey, although old horse droppings were present and a horse was grazing an adjacent field. No signs of nutrient enrichment were seen.
	Conservation value	Medium
	Comments on conservation value	This site is of medium conservation value, with Annex I habitats 6410 (larger area) and 7210 (smaller area) present. These habitats, especially the 6410, are probably more significant and in better condition than the turlough. The site could provide suitable habitat for the Annex II species Marsh Fritillary. The site covers a relatively small area. No rare plants were recorded.

	Turlough number	96
	Turlough name	Balrobuck Beg 2
	Recorders	JM/FON
	Field survey date	15/07/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. According to a local who lives adjacent, there is no flooding in this field except for a very small patch in the southwest corner, and any flooding that does occur in the area is due to excessive rain filling up ditches and hollows or causing the nearby river, located to the north, to back up. Habitat on site is agricultural grassland with <i>Lolium perenne</i> and <i>Trifolium repens</i> .

	Turlough number	97
	Turlough name	Balrobuck Beg 3
	Recorders	JM/FON
	Field survey date	15/07/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough as it floods from groundwater in the winter and empties in the summer. The turlough basin was mostly dry at the time of the visit. There is a good diversity of vegetation communities, with some permanent water and associated aquatic/swamp communities. Zonation is from a grass-forb community (<i>Potentilla anserina</i> / <i>Mentha aquatica</i>) transitioning to a fen community (<i>Carex flacca</i> / <i>Filipendula ulmaria</i> or <i>Carex nigra</i> / <i>Mentha aquatica</i>) or to a <i>Molinia caerulea</i> community (6410), which grades into a <i>Carex rostrata</i> aquatic macrophyte community and then to a <i>Potamogeton</i> sp. aquatic macrophyte community.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	133400 241500
	Approximate area ha	8
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	5

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	40
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	1
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	1
10	Grass/forb-dominated community	53
11	Aquatic macrophyte community	5
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	

13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	✓
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition. It was extensively grazed by six horses at the time of the survey. There is no evidence of nutrient enrichment.
	Conservation value	Medium
	Comments on conservation value	This site is of medium conservation value. No rare plants were recorded. There is high vegetation community diversity. Adjacent habitats are Oak-ash-hazel woodland, treelines and some agricultural grassland. It is a relatively large site. Annex I 6410 Molinia meadow habitat is also present on site.

	Turlough number	98
	Turlough name	Baunmore Galway
	Recorders	JM/FON
	Field survey date	19/05/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. It floods from a small, permanently wet area near the centre of the turlough. No streams or ditches are present in the vicinity. It empties to groundwater via an underground stream that runs to Creg Castle. Vegetation communities are reasonably diverse. The grass-forb community is mainly <i>Potentilla anserina</i> / <i>Agrostis stolonifera</i> / <i>Filipendula ulmaria</i> , with some areas dominated by <i>Iris pseudacorus</i> . This transitions to a fen community with <i>Carex nigra</i> and <i>C. panicea</i> , and then to <i>Eleocharis palustris</i> and finally to permanent water. A large area is flooded in winter and this sometimes freezes over, according to a local resident, allowing skating to take place. The area was damp during the survey as most of the water had recently receded. Horse grazing (light, extensive) takes place on site, with some temporary paddocks set up but no animals yet present. Cattle grazing occurs in the small eastern field.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	137080 237500
	Approximate area ha	9
	Predominant substrate	Mineral
	Predominant basin condition	Damp
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	2
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	1
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	97
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	

Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition, appropriately grazed and with almost no nutrient enrichment.
	Conservation value	Medium
	Comments on conservation value	This site is of medium conservation value. No rare plants were seen. All habitats in the flooded fields are semi-natural. Grazing levels are appropriate and there is a good diversity of vegetation communities which are quite species rich. Adjacent habitats are semi-improved grassland or agricultural grassland, and some woodland.

	Turlough number	109
	Turlough name	Bredagh
	Recorders	JM/FON
	Field survey date	16/09/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. The area is flooded by a fast-flowing temporary river.

	Turlough number	113
	Turlough name	Callow Lough
	Recorders	JM/FON
	Field survey date	18/05/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, part of this site is a turlough (grid reference moved to centre of this turlough area). The area is fed by groundwater and is known as the "pond" and all of the turlough does dry out from July-September. The landowner only remembers one year where the summer was too wet to graze the turlough area. Part of the site is permanent water. In the east of the lough, there is a small stream (probably man-made) that drains the lake but a local landowner said it only drains the lake at highest water levels and the stream is dry for the remainder of the year. At the time of survey, most of the site was still flooded with the water level only about 30 cm below the maximum flood height and the water level still had another 1.5 metres to drop. Vegetation zonation was evident, with a grass-forb (<i>Agrostis stolonifera</i> / <i>Rumex crispus</i>) community transitioning to <i>Equisetum fluviatile</i> / <i>Mentha aquatica</i> or <i>Eleocharis palustris</i> - <i>Glyceria fluitans</i> then transitioning to aquatic macrophytes (<i>Carex rostrata</i>). The high water level made it difficult to access all of the site. The landowner said that once water rises in the "pond area" it then flows across the ground and fills other seasonally flooded areas as well as the permanent lake.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	Y
	Grid reference	171900 234350
	Approximate area ha	13
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	3

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	1
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	15
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	4
11	Aquatic macrophyte community	55
12	Charophyte community	

12.1	Other (please specify)	25 (<i>Equisetum fluviatile</i> / <i>Mentha aquatica</i>)
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓ (not permanent)
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	The site is negatively impacted by nutrient enrichment. The landowner said that, once the area dries, it is grazed by cattle.
	Conservation value	Medium
	Comments on conservation value	This site is of medium conservation value. No rare plants were seen. Adjacent habitats are improved agricultural grassland and the permanent lake. This is quite a large site with a high diversity of vegetation communities, and is deserving of further study.

	Turlough number	116
	Turlough name	Carheeney / Carraghy
	Recorders	JM/FON
	Field survey date	19/05/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. The person living next to the site confirmed that it fills from groundwater every winter (approximately half of the field floods) and then empties into the groundwater in spring. A few years ago the water was deep enough for people to take boats out onto the temporary lake. With the exception of some hollows, which are probably entry/exit points for the groundwater, there is no zonation of vegetation communities, the one community present being dominated by <i>Lolium perenne</i> with <i>Anthoxanthum odoratum</i> . <i>Alopecurus geniculatus</i> is locally frequent, especially in damp hollows. No karstic features were seen except for a few small areas of exposed rock.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	138150 237650
	Approximate area ha	2
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	99
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	1 (<i>Alopecurus geniculatus</i>)
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	

13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	This is an agriculturally improved grassland dominated by <i>Lolium perenne</i> . Grazing is appropriate and no poaching was recorded. In one hollow nutrient enrichment was seen, with algae present.
	Conservation value	Low
	Comments on conservation value	This site is of low conservation value. No rare plants were seen. Few turlough features were noted and no zonation or vegetation community diversity was recorded. This is an agricultural grassland with adjacent habitats also mostly agricultural.

	Turlough number	128
	Turlough name	Common
	Recorders	JM/FON
	Field survey date	14/07/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. Any flooding (which is rare) comes from the River Clare which is adjacent. The River Clare drainage means that this area no longer floods except in very rare circumstances e.g. extremes of weather/rainfall.

	Turlough number	131
	Turlough name	Corbally South 1 / Pollakilleen
	Recorders	JM/FON
	Field survey date	19/05/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. Since the River Clare was rerouted about 100 years ago the hydrology of the area has changed (Coxon & Drew 1983) and this is no longer a turlough. A local resident said that any flooding in this area is from the River Clare rather than from groundwater. A basin can still be seen where the turlough used to be (photo taken).

	Turlough number	132
	Turlough name	Corbally South 2 / Meelick
	Recorders	JM/FON
	Field survey date	19/05/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is no longer a turlough. The area has been hydrologically cut off since the River Clare was rerouted approximately 100 years ago. According to a local resident, any flooding that does occur comes directly from the river.

	Turlough number	133
	Turlough name	Corbally South 3 / Pollinacloya
	Recorders	JM/FON
	Field survey date	19/05/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. Since the River Clare was rerouted about 100 years ago the hydrology of the area has changed (Coxon & Drew 1983) and this is no longer a turlough. The landowner said that an underground stream had once flowed from the turlough but this may no longer be the case. Once the river was rerouted there was some water flow from the new river into the turlough, but a concrete wall was built early in the 20th century to prevent this. There is still a sinkhole where the turlough was and, although the landowner said that the area is now only flooded from the river, floodwater does appear to empty into the sinkhole. Due to the river flooding the area, there is still <i>Cinclidotus</i> on the walls.

	Turlough number	134
	Turlough name	Corbally South 4 / Cloghdo / Turloughmore
	Recorders	JM/FON
	Field survey date	21/05/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. The site is now agricultural grassland. A local landowner confirmed that there is no longer a turlough at this site due to 19th century works on the River Clare which changed the hydrology in the area. Works in the 1950s which deepened the main channel further altered the hydrology. (No photo taken as access to the point was difficult.)

	Turlough number	135
	Turlough name	Cornanta More
	Recorders	JM/FON
	Field survey date	20/05/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. A local resident confirmed the presence of the turlough and indicated that the basin floods from the groundwater in the winter and empties via the groundwater in the spring. During the site visit few karstic features were seen, with the presence of <i>Cinclidotus</i> on stones and walls the only indication of the extent of the flooding. There is little diversity in the grass-forb community (<i>Agrostis stolonifera</i> and <i>Potentilla anserina</i>). No swallow holes were seen but a local mentioned seeing one on the site in the past. There were a few hollows within the shallow basin where water may come up from the groundwater. A winter visit may be useful to map the extent of the turlough basin.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	176470 247240
	Approximate area ha	4
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	1

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	100
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	

13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	Grazing appears to be appropriate for the site and there were no signs of nutrient enrichment. The semi-natural grassland habitats seen (dry neutral and wet grassland) were not diverse, but neither were they agriculturally improved.
	Conservation value	Low
	Comments on conservation value	This site is of low conservation value. No rare plants were recorded. It is mostly a homogenous grassland sward of low diversity. The site has few karstic features.

	Turlough number	146
	Turlough name	Crossconnell More
	Recorders	JM/FON
	Field survey date	18/05/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. The habitats present at the site include a treeline, improved agricultural grassland with <i>Urtica dioica</i> , and wet grassland with <i>Juncus effusus</i> . The landowner's father said the site had flooded in the past but since a drain had been put in this was no longer the case. There are karstic features at the site and possible old swallow holes but no evidence of flooding or vegetation zonation. We asked the landowner's father about a wet hollow on the other side of the road. He said he thought this was predominantly fed by rainwater rather than groundwater.

	Turlough number	154
	Turlough name	Drumacoo North
	Recorders	JM/FON
	Field survey date	22/09/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough, it is entirely composed of Typha swamp (FS1). The presence of swamp indicates permanently wet or waterlogged conditions.

	Turlough number	157
	Turlough name	Esker
	Recorders	JM/FON
	Field survey date	22/09/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough that floods in winter and empties in the summer. Water flow in and out of the basin is assumed to be via groundwater as no rivers or streams flow in or out. Half of the site is permanent water and this area was not included in the total area of 1.5 ha estimated for the turlough. Vegetation zonation is from limestone grassland (<i>Carex flacca</i> / <i>Linum catharticum</i>) or scrub (<i>Crataegus</i> / <i>Prunus spinosa</i> / <i>Rhamnus</i>) to grass-forb (<i>Potentilla anserina</i> / <i>Ranunculus repens</i>) or fen (<i>Carex panicea</i> / <i>Carex viridula</i>). Some of the limestone grassland is Annex I 6210.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	141480 216150
	Approximate area ha	1.5 (excl. permanent water)
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	3

	Vegetation communities (%)	
1	Limestone grassland	74
2	Flooded pavement	
3	Woodland/scrub	5
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	1
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	20
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	

13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	Greater pond snail

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	✓
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is generally in good condition. Small areas of algal growth and other small areas of poaching were noted.
	Conservation value	Medium
	Comments on conservation value	The site is of medium conservation priority. No rare plants were recorded. There is reasonable vegetation community diversity. Limestone pavement (Annex I 8240) and Annex I 6210 Calcareous grassland were recorded adjacent to the turlough. Agricultural grassland is the other main adjacent habitat.

	Turlough number	173
	Turlough name	Hillswood
	Recorders	JM/FON
	Field survey date	21/05/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough, as most of the water remains all year round. The landowner said that there is some drop in water level but the lake never goes dry, unlike some of the other lakes in the vicinity (possible turloughs?). At the time of survey, the water had receded somewhat, with swampy vegetation at the edge, but <i>Schoenoplectus lacustris</i> in the centre of the lake indicated permanent water. A stream to the southeast runs out of the lake. The landowner said that there is probably a spring in the centre of the lake, and that the lake was said to have been man-made over 200 years ago.

	Turlough number	174
	Turlough name	Horseleap
	Recorders	JM/FON
	Field survey date	20/05/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough as, according to the landowner, it is a permanent wetland that is filled by surface water from the surrounding slopes and a ditch/stream that flows into the site. Flow out from the lake is also via a small ditch/stream. Although there is some seasonal variation in the level of the lake, it remains permanently wet and is dominated by swamp vegetation (<i>Typha latifolia</i> and <i>Schoenoplectus lacustris</i>). The lake was deeper in the past and had fish stocks, including Pike, but it was drained in the 1950s. The Annex I habitat 6210 was found on the esker adjacent to the site.

	Turlough number	175
	Turlough name	Kilcoona
	Recorders	JM/FON
	Field survey date	16/09/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough, fed by groundwater according to a local resident. There is also a temporary river which sometimes feeds into the turlough. This was flowing at the time of the visit (following heavy rain) but had been dry a few weeks previously. The turlough is linked to a nearby lake via an underground river and also links to another turlough to the west, approximately 200 m away. Another resident said that flooding can extend up to Kilcoona cemetery, probably extending out from the river basin, which runs northeast. Low vegetation diversity was noted, with zonation exhibited going from a <i>Lolium</i> community to a grass-forb community of <i>Agrostis stolonifera</i> / <i>Potentilla anserina</i> or <i>Agrostis stolonifera</i> / <i>Apium nodiflorum</i> .

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	131270 243670
	Approximate area ha	1
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	4

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	10
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	90
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	

13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	Dragonfly (Common darter)

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓ (not permanent)
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	The turlough is in fair condition as some of the grassland within the turlough has been agriculturally improved. A small amount of algae is present on the water surface, an indication of nutrient enrichment.
	Conservation value	Low
	Comments on conservation value	The site is of low conservation value. No rare plants were recorded. The site has low vegetation diversity within the turlough basin. The main adjacent habitat is agricultural grassland.

	Turlough number	194
	Turlough name	Liscloonmeeltoge
	Recorders	JM/FON
	Field survey date	20/05/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough as, according to a local resident, the area never floods. The habitat at the site is semi-improved wet grassland with <i>Lolium perenne</i> dominant, plus some <i>Holcus lanatus</i> , <i>Juncus effusus</i> and <i>Anthoxanthum odoratum</i> . The area was probably once more boggy and possibly a fen. Well-maintained drains run through the area. No karstic features were seen during the site visit.

	Turlough number	195
	Turlough name	Lisheenageeha
	Recorders	JM/FON
	Field survey date	16/09/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. A local landowner confirmed that the only flooding at the point is due to the confluence of two permanent rivers on either side of the point, which flood the whole area during heavy rain. The site is grazed by a suckler herd so could not be approached too closely (bull present) but the vegetation appears to be calcareous grassland, with some wetter areas possibly forming small areas of fen. Large amounts of limestone rock are present on and near the site.

	Turlough number	197
	Turlough name	Loch Muirbhigh
	Recorders	FON
	Field survey date	23/09/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough, although its water source may be a combination of freshwater and sea water. Some permanent water remains in the central lake all year round (not included in area calculation), with <i>Phragmites australis</i> and <i>Schoenoplectus tabernaemontani</i> present in the permanent water. Water levels were up in areas surrounding the lake due to recent heavy rain (fairly recent cow pats were under water) and this made it difficult to see the full range of vegetation communities and zonation. The main communities were limestone grassland (<i>Lotus corniculatus</i> / <i>Daucus carota</i> / <i>Achillea millefolium</i>) grading into a grass-forb community with fen elements (<i>Carex panicea</i> / <i>Filipendula ulmaria</i> / <i>Trifolium repens</i> / <i>Leontodon autumnalis</i>). A local landowner spoken to said that the road northwest of the turlough can flood in wet winters. He does not graze his cattle on the turlough as the ground can get too soft. A woman spoken to was of the opinion that the current extent of flooding was of relatively recent origin (within her lifetime). No <i>Cinclidotus fontinaloides</i> was found anywhere. The sea comes in and joins the turlough, and walls have been breached by the sea in the past.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	94300 206300
	Approximate area ha	3 (excluding approximately 1 ha of permanent water)
	Predominant substrate	Mineral (some sandy)
	Predominant basin condition	Flooded
	Number of land parcels	20 (approx)

	Vegetation communities (%)	
1	Limestone grassland	15
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	75
11	Aquatic macrophyte community	10
12	Charophyte community	

12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	✓
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition. No nutrient enrichment was seen, water was very clear, and no poaching was noted in areas grazed by cattle.
	Conservation value	Medium
	Comments on conservation value	The site is of medium conservation priority. No rare plants were recorded (but the area was flooded). It is the only turlough on Inis Meain. Other Annex I habitats noted adjacent to the turlough were Limestone pavement (8240) and Calcareous grassland (6210). The turlough is also in an unusual context so close to the sea.

	Turlough number	198
	Turlough name	Lough Aunaculaskey
	Recorders	JM/FON
	Field survey date	20/05/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	<p>No, this is not a turlough, but rather is a permanently wet complex of marsh, swamp, fen and wet woodland, and possibly an area of transition mire 7140 with <i>Carex rostrata</i>/<i>Equisetum fluviatile</i>. The species-rich marsh (GM1) has species such as <i>Equisetum fluviatile</i>, <i>Caltha palustris</i>, <i>Mentha aquatica</i>, <i>Filipendula ulmaria</i>, <i>Lychnis flos-cuculi</i> and <i>Valeriana officinalis</i>. <i>Cirsium dissectum</i>, <i>Succisa pratensis</i> and <i>Molinia caerulea</i> are frequent in a fen-meadow northwest of the grid reference given for the feature, in a somewhat rank area that could, with management, conform to Annex I 6410 <i>Molinia</i> meadows. <i>Salix</i> woodland at the edge of the wetland is likely to be Annex I 91E0 Alluvial woodland. No signs of zonation were seen. A local man spoken to said that the area no longer floods and the water level is lower than it used to be due to drainage by Bord na Mona and previously by the sugar company. He said that a swallow hole exists in the area, but this was not located. The area is now a floating scraw of species-rich vegetation. The wetland is of high conservation value (though not a turlough). A possible source of groundwater was noted on site in an area with dense <i>Equisetum fluviatile</i>, possibly a spring.</p>

	Turlough number	207
	Turlough name	Moylough Turlough
	Recorders	JM/FON
	Field survey date	21/05/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. Large areas of the site were dry at the time of the survey but a local landowner said that the basin always floods in winter and can cover the road (approximately 2 m deep). The landowner thinks the flooding has got worse in recent times possibly due to blocking of swallow holes with debris. When the road last flooded a large ditch was dug at 161300 247050 and under the guidance of a Galway Co. Council engineer a sluice operated to control the water draining from the flooded basin. There are multiple swallow holes within the site. This site is a wetland complex with a diversity of ecological communities and what appears to be a complex hydrology. After walking the whole basin it seemed that only the northwestern half was acting as a turlough, with the southeastern section more a mosaic of permanent water, swamp and wet grassland (some of which corresponds to the Annex I habitat 6410). Old peat cutting was observed in the site. Within the turlough, vegetation zonation is from grass-forb communities (<i>Phalaris arundinacea</i> or <i>Molinia caerulea</i> / <i>Filipendula ulmaria</i> or <i>Potentilla anserina</i>) to <i>Equisetum fluviatile</i> / <i>Mentha aquatica</i> to an aquatic macrophyte community (<i>Hippuris vulgaris</i> / <i>Polygonum amphibium</i> or <i>Menyanthes trifoliata</i> / <i>Potentilla palustris</i>) to permanent water. Within the turlough area there are areas of permanent swamp.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	160800 247160
	Approximate area ha	15
	Predominant substrate	Organic
	Predominant basin condition	Flooded
	Number of land parcels	3

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	10
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	40

11	Aquatic macrophyte community	40
12	Charophyte community	
12.1	Other (please specify)	10 (<i>Equisetum fluviatile</i> / <i>Mentha aquatica</i>)
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	✓ (old peat cutting)
17	Drains	✓
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	The site is in fair condition. It may be slightly undergrazed as only three ponies seem to go into the turlough area. Some nutrient enrichment was noted, with a large amount of algal paper seen in some areas. The site also has multiple drains running through it.
	Conservation value	High
	Comments on conservation value	The site is considered to be a high conservation priority. It is a turlough with a high diversity of vegetation communities on a mostly peaty substrate. The turlough is part of an extensive wetland complex that possibly includes the Annex I habitats 6410 Molinia meadows and 7140 Transition mire. No rare plants were recorded. Further studies on this site are recommended.

	Turlough number	209
	Turlough name	Newcastle Galway
	Recorders	JM/FON
	Field survey date	18/05/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this site is not a turlough. The area where the grid reference point is, is wet grassland (GS4) with <i>Juncus effusus</i> and <i>Iris pseudacorus</i> . No zonation of vegetation was seen and there was no evidence of winter flooding, and certainly not to the 50 cm depth required for turlough flooding (Coxon, 1987). It could not be confirmed whether springs or swallow holes were present in the vicinity as the landowner could not be located. However, a system of ditches and small streams in the area suggest that surface water rather than groundwater is the main influence on the hydrology. Also, there was no evidence of flooding on any aerial photos or satellite imagery.

	Turlough number	229
	Turlough name	Tonamace
	Recorders	JM/FON
	Field survey date	14/07/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this site is not a turlough. It appears to be a small surface pond with a grass-forb community of <i>Alopecurus geniculatus</i> / <i>Rumex obtusifolius</i> .

	Turlough number	244
	Turlough name	Turloughcor
	Recorders	JM/FON
	Field survey date	15/07/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough (grid reference moved 500m northeast of original point). The landowner confirmed that this area floods via groundwater in winter. In the 1970s a drainage scheme was put in place that drained most of the original turlough, which would have covered 150 ha and taken in large areas of land between the current turlough and the permanent lake 500m to the southwest. Although there is still some seasonal flooding around the permanent lake (which is reported to be 7 m deep), when the turlough water rises much of the water is contained in a ditch leading into the lake and then flows out of the lake via two other large ditches. There is very little vegetation zonation, with the vegetation dominated by a grass-forb community (<i>Mentha aquatica</i> / <i>Potentilla anserina</i>) with small areas of an aquatic macrophyte community with <i>Hippuris vulgaris</i> and a muddy annual community with <i>Gnaphalium uliginosum</i> / <i>Rorippa palustris</i> .

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	130100 244600
	Approximate area ha	3
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	96
11	Aquatic macrophyte community	3
12	Charophyte community	
12.1	Other (please specify)	1 (Muddy annual comm. with <i>Gnap ulig/Rori palu</i>)
12.2	Other (please specify)	
12.3	Other (please specify)	

Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	Daubenton's bat feeding over turlough at 4pm

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Poor
	Comments on condition	The turlough is in poor condition. Some nutrient enrichment (algal growth) was seen and large numbers of cattle were grazing the southwestern section of the turlough. Drains leading from the turlough have altered the local hydrology.
	Conservation value	Low
	Comments on conservation value	This site is of low conservation value. No rare plants were recorded. Vegetation community diversity is low. Adjacent habitats are semi-natural grassland, wet grassland and agricultural grassland. The site is small. According to local landowners, the site is visited by geese, duck and curlew.

	Turlough number	246
	Turlough name	Turloughmore Common
	Recorders	JM/FON
	Field survey date	19/05/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes this is a turlough, which fills from groundwater. The main area where water comes up was still wet at the time of the visit. Locals describe the water as pumping up when the turlough fills, so there must be considerable pressure in the groundwater. This large turlough was once part of the largest turlough in Ireland before the River Clare catchment was altered in the 19th century (Coxon & Drew 1983). The turlough empties into various sinkholes as well as a small temporary stream that flows into an area of Menyanthes-dominated swamp and fen to the south. Vegetation zonation is present, with a <i>Potentilla anserina</i> -dominated grass-forb community transitioning to fen. Drier areas of grass-forb have abundant <i>Bellis perennis</i> and frequent <i>Plantago lanceolata</i> . Areas of fen are frequently found in mosaic with the grass-forb community.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	143500 236900
	Approximate area ha	11
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	1

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	3
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	97
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	

13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	✓

	Condition evaluation	Good
	Comments on condition	The site is grazed by five horses, generally at an appropriate level, although the sward was short. A small area of poaching was noted at the edge of the permanent water. No nutrient enrichment was seen within the turlough vegetation.
	Conservation value	Medium
	Comments on conservation value	This site is of medium conservation value. It is a large site with swamp/fen areas to the south adding to the conservation value of the area. Within the turlough basin itself there is very little vegetation diversity, and no rare plants were seen. Turloughmore is the largest remaining part of what was a much larger turlough and this increases its conservation/cultural value.

	Turlough number	248
	Turlough name	Turloughnacloghdoo 1
	Recorders	JM/FON
	Field survey date	22/09/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. The site was damp at the time of the visit but there was no evidence from vegetation or other indicators, such as <i>Cinclidotus fontinaloides</i> on the stone walls, that the water is ever very deep (less than 50 cm). The vegetation shows no signs of zonation, with a mosaic of wet grassland and fen covering much of the site. There is a drain running through the site that was full of water at the time of the survey.

Turlough number	250
Turlough name	Turloughnacloghdoo 2
Recorders	JM/FON
Field survey date	22/09/2015
Is it a Turlough? (Y / N / U)	Y
Brief description and reason for decision	Yes, this is a turlough, with a spring rising in the centre. It was flooded at the time of the survey. It is comprised of two linked pools. The main vegetation community appears to be grass-forb (<i>Glyceria fluitans</i> / <i>Carex hirta</i> / <i>Rorippa nasturtium-aquatica</i> / <i>Agrostis stolonifera</i>). <i>Polygonum amphibium</i> and <i>Eleocharis palustris</i> communities were also recorded, but it was difficult to determine the percentage cover of each due to flooding.

(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
Part of a complex of turloughs?	N
Grid reference	146160 217570
Approximate area ha	2
Predominant substrate	Mineral
Predominant basin condition	Flooded
Number of land parcels	1

Vegetation communities (%)		
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	1
8	<i>Polygonum amphibium</i> community	1
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	98
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓

13.7	Other (including invertebrates)	Swans x 2
------	---------------------------------	-----------

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓ (not permanent)
17	Drains	✓
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	The site is in fair condition. Water in the larger pool is very clear but nutrient enrichment is high in the smaller of the two pools. The turlough is grazed tightly with a small amount of poaching from cattle.
	Conservation value	Low
	Comments on conservation value	The site is of low conservation priority. No rare plants were recorded. The site occurs in an agricultural context, and very little vegetation zonation was evident.

	Turlough number	251
	Turlough name	Turloughnacrusa
	Recorders	JM/FON
	Field survey date	16/09/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough, filling from groundwater to over 50 cm. The landowner said that flooding can extend as far as the small track north of the turlough. Water level fluctuates during the year, but some permanent water remains. Vegetation community zonation is from limestone grassland (Annex I 6210) to grass-forb community (<i>Mentha aquatica</i> / <i>Potentilla anserina</i>) to aquatic macrophyte communities (<i>Equisetum fluviatile</i> or <i>Schoenoplectus lacustris</i>). Some scrub is present in the middle of the limestone grassland (<i>Rhamnus cathartica</i> / <i>Crataegus monogyna</i>). The location of the centroid has been moved west as the landowner said there is no flooding at the original point.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	
	Grid reference	127920 242540
	Approximate area ha	2.5
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	3
2	Flooded pavement	
3	Woodland/scrub	3
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	91
11	Aquatic macrophyte community	3
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	

13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition and is appropriately grazed. Two horses were present at the time of the survey. No nutrient enrichment was observed.
	Conservation value	Medium
	Comments on conservation value	The site is of medium conservation priority. No rare plants were recorded but <i>Rhamnus</i> was present as a component of the scrub community. Limestone grassland within the flood zone corresponds to Annex I 6210. The adjacent habitats are woodland (oak-ash-hazel) and agricultural grassland.

	Turlough number	254
	Turlough name	Turloughrevagh
	Recorders	JM/FON
	Field survey date	14/07/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough as a local resident confirmed that it does flood every year but only for a few weeks. Three swallow holes were recorded on the site. 300 m to the south there is another possible turlough basin that also floods. It appears that the second basin is connected to this site, Turloughrevagh, via the groundwater but a local resident is of the opinion that this second basin fills via surface water from Turloughrevagh. The only vegetation community within the turlough is a <i>Lolium perenne</i> / <i>Cynosurus cristatus</i> / <i>Trifolium repens</i> community. No vegetation zonation was observed, confirming that the area only floods for short periods.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	142350 240275
	Approximate area ha	0.7
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	1

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	100
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	

13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	This is a semi-improved grassland site. There may be mineral fertilizer application. The site is not overgrazed and appears to be a silage field.
	Conservation value	Low
	Comments on conservation value	This site is of low conservation value. No rare plants were recorded. Only one semi-improved grassland community is present and adjacent habitats are all agricultural grassland.

Turlough number	259
Turlough name	Edentinny Ballinamore
Recorders	JM/FON
Field survey date	06/08/2015
Is it a Turlough? (Y / N / U)	Y
Brief description and reason for decision	Yes, this is a turlough. The landowner confirmed that the basin floods from October to May and then empties via 1-2 swallow holes. The turlough probably fills predominantly from the groundwater, but ditches leading in and out of the site account for some of the flow in and out of the basin. Vegetation zonation occurs, with a fen community (<i>Carex nigra</i> / <i>Hydrocotyle vulgaris</i>) or wet woodland (<i>Salix cinerea</i>) transitioning to an <i>Eleocharis palustris</i> community to an aquatic macrophyte community (<i>Carex rostrata</i> / <i>Carex acuta</i>).

(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
Part of a complex of turloughs?	N
Grid reference	210840 310570
Approximate area ha	3.5
Predominant substrate	Organic
Predominant basin condition	Damp
Number of land parcels	7

Vegetation communities (%)		
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	3
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	5
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	15
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	
11	Aquatic macrophyte community	77
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	

13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition. No nutrient enrichment was seen. The only grazing within the basin at the time of the survey was by two horses and five sheep. The top of the basin is mown.
	Conservation value	Medium
	Comments on conservation value	The site is a medium conservation priority. No rare plants were recorded. The basin is quite large and there is good vegetation diversity, although the majority of the site is dominated by <i>Carex</i> swamp. The wet woodland corresponds to the Annex I habitat 91E0. Adjacent habitats are mostly wet grassland, with the majority of this managed as meadow.

Turlough number	261
Turlough name	Lough Nahoo
Recorders	JM/FON
Field survey date	07/08/2015
Is it a Turlough? (Y / N / U)	N
Brief description and reason for decision	No, this is not a turlough, although we estimate that approximately 10% of the site does behave like a turlough. Photographs were taken to document these features. However, in our opinion the amount of permanent water is too great to call the site a turlough. Most of the site is a combination of swamp, Annex I 91E0 Alluvial woodland and Annex I 7140 Transition mire. The site is a high-conservation-value complex of wetland habitats.

DATA BELOW FILLED IN TO GIVE MORE INFO ON HIGH-QUALITY (THOUGH NON-TURLOUGH) SITE. PHOTOS TAKEN	
Part of a complex of turloughs?	N
Grid reference	181280 332140
Approximate area ha	
Predominant substrate	Organic
Predominant basin condition	Damp
Number of land parcels	

Vegetation communities (%)		
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	✓
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	✓
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	✓
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	
11	Aquatic macrophyte community	✓
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	

13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	✓
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Comments on condition	
	Comments on conservation value	

	Turlough number	273
	Turlough name	Ballisnahyny A
	Recorders	JM/FON
	Field survey date	17/09/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. The area experiences short-term flooding from surface water after heavy rain. Surface water runs down the hill southeast of the point, across the road and into the hollow where the point is located.

	Turlough number	274
	Turlough name	Ballisnahyny B
	Recorders	JM/FON
	Field survey date	23/09/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. Local residents who overlook the site said that they have seen no flooding at this point in the last 10 years. Looking over the field it was seen to be agricultural grassland with no turlough features seen. No other nearby turlough features were mentioned by local residents.

Turlough number	276
Turlough name	Ballisnahyny E
Recorders	JM/FON
Field survey date	17/09/2015
Is it a Turlough? (Y / N / U)	Y
Brief description and reason for decision	Yes, this is a turlough. It was flooded at the time of survey but a local resident confirmed that the water had dropped by 2m during the summer. Of the water in the basin, approximately 50% (1 ha) is a permanent lake, and 50% is a turlough (dry in summer and wet in winter). Due to flooding at the time of the visit the percentage cover of vegetation communities had to be estimated. Zonation is from woodland scrub (<i>Salix cinerea</i>) to grass-forb (<i>Agrostis stolonifera</i> / <i>Galium palustre</i>) to <i>Eleocharis palustris</i> to <i>Polygonum amphibium</i> to aquatic macrophytes (<i>Schoenoplectus lacustris</i>) to permanent water. This turlough is linked to site 277 via an underground stream.

(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
Part of a complex of turloughs?	N (but linked via underground stream to 277)
Grid reference	123140 251880
Approximate area ha	1
Predominant substrate	Mineral
Predominant basin condition	Flooded
Number of land parcels	1

Vegetation communities (%)		
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	1
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	25
8	<i>Polygonum amphibium</i> community	25
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	25
11	Aquatic macrophyte community	24
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	

13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	Coot

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓ (not permanent)
17	Drains	✓ (culvert)
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is generally in good condition. No grazing was noted, but some nutrient enrichment from surrounding farmland is occurring. Recent work has been carried out to put in a culvert under the road to drain the turlough at high water levels. We are unsure if this is new drainage or just reinstatement of a natural water flow that was being blocked by the road. Due to this work it appears that the water level in nearby site 277 fluctuates more.
	Conservation value	Medium
	Comments on conservation value	The site is of medium conservation value. No rare plants were recorded. There is good vegetation community diversity on site. The adjacent habitat is agricultural farmland.

	Turlough number	277
	Turlough name	Ballisnahyny E
	Recorders	JM/FON
	Field survey date	17/09/2015
	Is it a Turlough? (Y / N / U)	U
	Brief description and reason for decision	Unsure if this is a turlough or not. Recently the lake at site 276 underwent works by the landowner to clear drains and this, according to one local, also had the effect of dropping the water level in this site, 277. Therefore it is possible that this is now behaving more like a turlough than before. Further hydrological studies, including winter and dry summer visits, would be needed to clarify this. Some zonation of vegetation was noted, with a grass-forb community (<i>Plantago lanceolata</i> / <i>Rhinanthus minor</i>) grading into fen meadow (<i>Festuca arundinacea</i> / <i>Carex nigra</i> / <i>Filipendula ulmaria</i>) to aquatic macrophytes (<i>Schoenoplectus lacustris</i>) to permanent water. Recent heavy rain caused the area to be more flooded than in previous weeks.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N (but linked via underground stream to 276)
	Grid reference	123660 251750
	Approximate area ha	1.5 (excl. approximately 1.5 ha permanent water)
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	40
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	10
11	Aquatic macrophyte community	50
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	

13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	Dragonflies

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition and is appropriately managed by cattle grazing.
	Conservation value	Medium
	Comments on conservation value	The site is of medium conservation priority. No rare plants were recorded but there is good species diversity in the fen meadow habitat.

	Turlough number	278
	Turlough name	Ballyargadaun
	Recorders	JM/FON
	Field survey date	17/07/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough, which floods from groundwater between October and May. The turlough basin is partly delimited by an edge of <i>Crataegus monogyna</i> scrub. The basin was predominantly damp at the time of survey. The soil is mainly mineral, with some areas also showing a mix of organic and mineral soil, though pure basin peat appears to be absent. Zonation is exhibited by the vegetation communities, with a <i>Potentilla anserina</i> -dominated grass-forb community (<i>Filipendula ulmaria</i> and <i>Persicaria maculosa</i> also present) grading to <i>Carex nigra</i> / <i>Potentilla anserina</i> fen, to an <i>Eleocharis palustris</i> community, this grading into an aquatic macrophyte community (particularly an <i>Equisetum fluvatile</i> -dominated community), then on to <i>Schoenoplectus lacustris</i> (included under aquatic macrophytes for the purposes of determining percentage cover), and finally to permanent water.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	119810 261720
	Approximate area ha	4
	Predominant substrate	Mineral
	Predominant basin condition	Damp
	Number of land parcels	7

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	<1
3	Woodland/scrub	3
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	20
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	7
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	50
11	Aquatic macrophyte community	20
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	

13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	✓
15	Swallow/Sink holes	✓
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	✓

	Condition evaluation	Good
	Comments on condition	The site is in good condition generally, although one part is slightly overgrazed near an area of permanent water, and the rest is slightly undergrazed. Some nutrient enrichment was noted in the form of algal growth.
	Conservation value	Medium
	Comments on conservation value	This site is of medium conservation value. No rare plants were recorded. Good vegetation community diversity occurs in a relatively small area. Limestone pavement is in and adjacent to the site.

	Turlough number	279
	Turlough name	Ballyglass 2
	Recorders	JM/FON
	Field survey date	16/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. The area is composed of wet grassland (GS4) with a large drain running through it. No flooding occurs here, according to a local resident, who also had no knowledge of any springs in the area. This is consistent with evidence from aerial photographs.

	Turlough number	280
	Turlough name	Ballyglass 3 (Lough)
	Recorders	JM/FON
	Field survey date	16/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough but a drain (FW4) with deep water (but no flow of water) and swamp vegetation. Surrounding the drain is wet grassland (GS4) and the landowner said this area rarely floods.

	Turlough number	282
	Turlough name	Ballytrasna Turlough
	Recorders	JM/FON
	Field survey date	10/09/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. A large area (approximately 5 ha) floods from groundwater. <i>Cinclidotus fontinaloides</i> covers most of the stone walls on site. Vegetation zonation is from a grass-forb community (<i>Potentilla anserina</i> / <i>Deschampsia cespitosa</i> to <i>Agrostis stolonifera</i> / <i>Ranunculus repens</i>) to <i>Eleocharis palustris</i> to <i>Polygonum amphibium</i> to aquatic macrophytes (<i>Schoenoplectus lacustris</i>) to permanent water. Four lakes appear to flood together to form one waterbody/turlough in winter (evidence is from the site visit, no landowners were spoken to). Some depressions which may act as swallow holes are also present.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	122240 261630
	Approximate area ha	5
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	6

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	3
8	<i>Polygonum amphibium</i> community	3
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	91
11	Aquatic macrophyte community	3
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	

13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition and is generally appropriately grazed and managed, with just a small amount of poaching observed. Management is by non-intensive grazing of cattle, sheep and horses.
	Conservation value	Medium
	Comments on conservation value	This site is of medium conservation value on the basis of the site's size and habitat diversity. The complex of pooling areas adds further interest and diversity to the site. No rare plants were recorded.

	Turlough number	286
	Turlough name	Cahercroobeen
	Recorders	JM/FON
	Field survey date	17/07/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. A local farmer confirmed it floods in winter, with groundwater coming up to fill the basin. At the time of the survey the basin was dry. Part of the field is cut off when the water rises and a small causeway was being built at the time of survey to allow the farmer to access this part of the field between October and May. The turlough is in a shallow basin with little vegetation diversity. A grass-forb community is dominant (<i>Agrostis stolonifera</i> / <i>Ranunculus repens</i>) with other broadleaf herbs such as <i>Potentilla anserina</i> and <i>Mentha aquatica</i> common in the area. The grass-forb community grades into a <i>Glyceria fluitans</i> / <i>Callitriche</i> sp. community or a muddy annual community with <i>Gnaphalium uliginosum</i> / <i>Rorippa palustris</i> .

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	121180 262900
	Approximate area ha	2
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	5

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	98
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	1 (<i>Muddy annual comm. with Gnap ulig/Rori palu</i>)
12.2	Other (please specify)	1 (<i>Glyceria fluitans/Callitriche</i> sp.)
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	

13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	✓
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	The basin was heavily grazed at the time of the survey. Approximately 50 sheep were grazing one half and 10 cattle grazing the other half. A causeway is being built on the eastern edge of the turlough. Ditches drain the basin but are infilling with FS2 vegetation (<i>Equisetum fluviatile</i> / <i>Mentha aquatica</i>).
	Conservation value	Low
	Comments on conservation value	This site is of low conservation value. No rare plants were recorded. Low vegetation community diversity was noted. Habitats adjacent to the site are mainly agricultural grassland with some semi-natural grassland communities.

	Turlough number	287
	Turlough name	Carheens/Funshinaugh
	Recorders	JM/FON
	Field survey date	18/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough as no evidence was seen of any but minor water level fluctuations. The site is a diverse wetland of conservation value with around 50% of the site composed of swamp (FS1), which was still very wet at the time of the survey. The other 50% of the site is comprised of a mosaic of fen habitats including Annex I habitat 7230 Alkaline fen.

	Turlough number	290
	Turlough name	Carrowmore Mayo
	Recorders	JM/FON
	Field survey date	10/09/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. A large drain has been dug at the southeast corner of the site to alleviate flooding onto the road - a local resident said that the road around the site flooded in 2008 and the drain was put in after this. Therefore the level and depth of flooding is likely to be less than previously. There was a general lack of <i>Cinclidotus fontinaloides</i> , so flooding height could not be determined; however, a local resident confirmed that flooding still occurs. A sink hole apparently exists in wet grassland to the southwest, but this was not seen. Vegetation communities are diverse and species-rich, with several Annex I habitats present, namely 6410 <i>Molinia</i> meadows, 7140 Transition mire, 7210 <i>Cladium</i> swamp and 7230 Alkaline fen. The basin is very flat but vegetation zonation does occur. Zonation is from an intermediate grass-forb-fen community (<i>Carex nigra</i> / <i>Agrostis stolonifera</i> / <i>Potentilla anserina</i>) to a <i>Molinia caerulea</i> / <i>Carex panicea</i> community (with <i>Succisa pratensis</i> / <i>Cirsium dissectum</i>) to a <i>Schoenus</i> fen to transition mire (<i>Carex lasiocarpa</i>) to aquatic macrophytes. The area has been a wildlife sanctuary since 1974. This turlough is known as Skealaghan turlough and was studied by Dr James Moran as part of his PhD work. ISGS site 1850 is adjacent to the site.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	124400 263780
	Approximate area ha	7
	Predominant substrate	Organic
	Predominant basin condition	Dry
	Number of land parcels	1

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	1
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	20
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	39
10	Grass/forb-dominated community	
11	Aquatic macrophyte community	30

12	Charophyte community	
12.1	Other (please specify)	5 (<i>Carex lasiocarpa</i>)
12.2	Other (please specify)	5 (<i>Agrostis stolonifera</i> / <i>Carex nigra</i> / <i>Potentilla anserina</i>)
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	✓
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	The site is in fair condition as a turlough due to the presence of a very large and relatively recent drain which may affect future flooding patterns. The vegetation is in good condition, though, and is not poached or rank. There may be problems in the future if the water levels drop too much.
	Conservation value	High
	Comments on conservation value	The site is a high conservation priority. Several communities, including Annex I habitats 6410, 7140, 7230 and 7210, are present. No rare plants were recorded.

Turlough number	293
Turlough name	Carrownalecka 1
Recorders	JM/FON
Field survey date	10/09/2015
Is it a Turlough? (Y / N / U)	Y
Brief description and reason for decision	Yes, this is a turlough. Part of the site was still flooded at the time of survey, but the Molinia meadow and fen areas were not flooded. When fully flooded the water depth likely reaches about 50 cm. Zonation is from Annex I 6410 Molinia meadow to 7230 Alkaline fen to aquatic macrophytes (<i>Carex nigra</i> /Menyanthes trifoliata grading to 7210 Cladium swamp or Potamogeton sp.)

(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
Part of a complex of turloughs?	Y
Grid reference	119050 266436
Approximate area ha	4
Predominant substrate	Organic
Predominant basin condition	Flooded
Number of land parcels	2

Vegetation communities (%)		
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	5
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	5
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	15
10	Grass/forb-dominated community	
11	Aquatic macrophyte community	75
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓

13.7	Other (including invertebrates)	
------	---------------------------------	--

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	✓
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in excellent condition. Management is very extensive. Cattle were grazing the southern field of the site at the time of the survey, and there were some signs of grazing in the other field, though no cattle were present there during the site visit.
	Conservation value	High
	Comments on conservation value	This site is of high conservation priority. Several Annex I habitats (7230 Alkaline fen, 6410 Molinia meadow, 7210 Cladium swamp) are present. Adjacent habitats are also of conservation interest, including a small area of Annex I 8240 Limestone pavement and limestone grassland, some probably Annex I 6210. The site deserves further study. There is a high diversity of species and habitats. Active Marsh Fritillary webs (Annex II species) were located here during the 2014 Marsh Fritillary survey of Galway and Mayo. The adjacent site 294 was not surveyed, but is likely to be of a similar quality to this site.

	Turlough number	295
	Turlough name	Carrowreaghmony turlough
	Recorders	JM/FON
	Field survey date	16/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough as flooding is from surface water, according to the landowner. She said that her husband's family have farmed the land for two generations and they have no knowledge of springs in the area. A small lake forms in the winter but it dries out completely in the summer. The land is in a basin that presumably collects surrounding run-off.

	Turlough number	296
	Turlough name	Cashel
	Recorders	JM/FON
	Field survey date	15/06/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. It is uncertain if there are springs but there is no significant watercourse flowing in. The turlough floods approximately 5 ha and empties each summer, with only a small pond remaining, according to local residents. Residents also said that cattle can graze almost out to the island in the centre of the turlough in the summer, and it is possible to access the island on foot when it is dry. The turlough empties to groundwater and an underground stream which flows to the "AL caves". There is a good diversity of vegetation communities: a grass-forb community (<i>Phalaris arundinacea</i> / <i>Potentilla anserina</i>) grades to <i>Carex nigra</i> fen or <i>Molinia</i> fen and then to <i>Carex vesicaria</i> fen, then transitions to <i>Equisetum-fluviatile</i> swamp or an <i>Eleocharis palustris</i> community, on to aquatic communities (<i>Polygonum amphibium</i> or <i>Schoenoplectus lacustris</i>) and finally to permanent water.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	107850 283200
	Approximate area ha	5
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	6

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	1
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	25
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	5
8	<i>Polygonum amphibium</i> community	20
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	1
10	Grass/forb-dominated community	3
11	Aquatic macrophyte community	20
12	Charophyte community	
12.1	Other (please specify)	25 (<i>Equisetum fluviatile</i>)
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	

13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	7 tufted duck, 1 coot, 2 swan, 1 snipe

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	✓
17	Drains	✓
18	Discontinued hedges/walls	✓
19	Strandline	✓
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition but with some nutrient enrichment where stock densities are higher. Grazing levels appear appropriate.
	Conservation value	Medium
	Comments on conservation value	The site is of medium conservation value. No rare plants were seen. There is a good diversity of vegetation communities. Adjacent habitats include GS1, WS1 and GS4. Some of the fen has brown mosses which qualify it as Annex I 7230 Alkaline Fen.

	Turlough number	298
	Turlough name	Coolisduff A
	Recorders	JM/FON
	Field survey date	16/07/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. A local resident confirmed that the area floods in the winter and at the time of the survey the majority of the site was dry. Some vegetation zonation was noted: a <i>Molinia caerulea</i> - <i>Carex panicea</i> community with <i>Cirsium dissectum</i> (Annex I habitat 6410) grades into fen (<i>Carex nigra</i> / <i>Potentilla anserina</i> / <i>Hydrocotyle vulgaris</i>) and then to an aquatic macrophyte community (<i>Schoenoplectus lacustris</i> / <i>Menyanthes trifoliata</i> or <i>Carex rostrata</i> / <i>Equisetum fluviatile</i>). The majority of the <i>Molinia-Carex</i> habitat is Annex I 6410.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	122728 259723
	Approximate area ha	7
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	3

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	3
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	87
10	Grass/forb-dominated community	
11	Aquatic macrophyte community	10
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	

13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	Dragonfly

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	✓
20	Algal paper	✓
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	This site is in good condition. It appears to have two separate owners, and one half of the turlough was grazed by a suckler herd of approximately 20 animals at the time of the survey. Small areas show evidence of nutrient enrichment.
	Conservation value	Medium
	Comments on conservation value	This site is of medium conservation value. No rare plants were recorded. Areas of the Annex I habitat 6410 Molinia meadow are within the turlough and adjacent habitats. There is some vegetation zonation and vegetation diversity, but the Molinia-Carex fen community dominates. Habitats adjacent to the site are semi-natural grassland and woodland.

Turlough number	299
Turlough name	Coolisduff B
Recorders	JM/FON
Field survey date	16/07/2015
Is it a Turlough? (Y / N / U)	Y
Brief description and reason for decision	Yes, this is a turlough, filling from groundwater for 6-7 months of the year. Swallow holes were seen. The depth of water appears to be up to 5 m, judging by the level of <i>Cinclidotus fontinaloides</i> on the walls. The turlough basin is undulating, but zonation of vegetation is minimal, with a grass-forb community dominated by lush <i>Potentilla anserina</i> (with <i>Filipendula ulmaria</i>) the only community recorded. The turlough occurs in an agricultural context and is grazed by a herd of cattle and sheep, with 4-5 horses also present.

(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
Part of a complex of turloughs?	N
Grid reference	121940 259870
Approximate area ha	7
Predominant substrate	Mineral
Predominant basin condition	Dry
Number of land parcels	5

Vegetation communities (%)		
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	100
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	

13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	This site is in good condition generally, though some nutrient enrichment (in the form of lush <i>Potentilla anserina</i>) was noted.
	Conservation value	Low
	Comments on conservation value	This site is of low conservation value. No rare plants were recorded. No vegetation community diversity was noted, with just the one community recorded and botanical diversity was also low.

	Turlough number	302
	Turlough name	Crossard
	Recorders	JM/FON
	Field survey date	17/06/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough in a flat basin. Many turlough characteristics are present, including a link to groundwater via a sinkhole. There is a large area of a Polygonum amphibium vegetation community, as well as other communities typical of turloughs, e.g. fen, Eleocharis palustris, Equisetum fluviatile). The landowner is of the opinion that most of the flooding comes from the northeast where blocked drains in adjacent land cause flooding. Vegetation community zonation was seen: grass-forb community (Agrostis stolonifera/Ranunculus repens) transitioning to fen (Carex nigra/Potentilla anserina/Calliergonella cuspidata) and then to Polygonum amphibium (some with Equisetum fluviatile, some with water crowfoots). The area is grazed by cattle. The landowner said that flooding from October to May is so high that fields to the north cannot be accessed.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	150250 285550
	Approximate area ha	2
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	3

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	10
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	1
8	<i>Polygonum amphibium</i> community	84
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	5
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	

13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition, with no evidence of nutrient enrichment. The site is appropriately grazed. A small causeway has been built at the edge of the turlough to facilitate access of cattle to higher fields to the north.
	Conservation value	Low
	Comments on conservation value	This turlough is of low conservation value in that a large and better example lies 300 m to the northwest with better community diversity. However this is still a good example, a compact turlough with decent community diversity. Adjacent habitats are semi-improved and semi-natural dry calcareous/neutral grassland. No rare plants were noted on site.

	Turlough number	303
	Turlough name	Crossbeg
	Recorders	JM/FON
	Field survey date	17/06/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. A local resident said the area floods from and empties to groundwater. This turlough is linked to a nearby turlough via an underground stream. The vegetation communities are grass/forb (<i>Potentilla anserina</i> / <i>Senecio aquaticus</i> or <i>Phalaris arundinacea</i> / <i>Filipendula ulmaria</i>) transitioning to <i>Molinia</i> / <i>Carex</i> , transitioning then to fen (<i>Carex nigra</i> / <i>C. viridula</i> / <i>Ranunculus repens</i>) and then to a <i>Polygonum amphibium</i> community or aquatic macrophytes (<i>Carex vesicaria</i>). The <i>Polygonum amphibium</i> community is extensive. The water had recently receded at the time of the survey.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	149963 285945
	Approximate area ha	7
	Predominant substrate	Mineral with marl
	Predominant basin condition	Damp
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	1
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	73
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	15
10	Grass/forb-dominated community	10
11	Aquatic macrophyte community	1
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	

13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition, with no evidence of nutrient enrichment and appropriate grazing by cattle (approximately 15 animals grazing at the time of survey).
	Conservation value	Medium
	Comments on conservation value	This turlough is of medium conservation value. There is some diversity in vegetation community and the <i>Polygonum amphibium</i> community is one of the most extensive examples seen on the survey. No rare plants were recorded. Adjacent habitats include improved agricultural grassland (silage fields) and dry calcareous/neutral grassland.

	Turlough number	304
	Turlough name	Cuillaun
	Recorders	JM/FON
	Field survey date	23/09/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough, by far the largest site visited in the course of this survey, covering an area of approximately 50-70 ha. The turlough was mostly dry at the time of the survey. The dominant habitat is fen (<i>Carex nigra</i> / <i>C. panicea</i> / <i>C. viridula</i> / <i>Potentilla anserina</i>). The entire area is grazed by cattle or horses. Some <i>Alnus</i> woodland at the north of the site also floods. Zonation is from woodland to grass-forb (<i>Agrostis stolonifera</i> / <i>Potentilla anserina</i>) to fen.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	140500 270500
	Approximate area ha	60
	Predominant substrate	Organic with marl
	Predominant basin condition	Dry
	Number of land parcels	19

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	1
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	95
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	4
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	

13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	✓
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition. It is extensively grazed by cattle and horses. There is no improved agricultural grassland habitat in the site, all habitats are semi-natural. However, a number of drains run through the turlough.
	Conservation value	Medium
	Comments on conservation value	The site is of medium conservation priority, mainly because of its size (largest turlough surveyed in 2015), though in terms of vegetation community diversity it is relatively homogenous, being mostly comprised of fen. It is the only verified turlough in this 10k square. No rare plants were recorded.

	Turlough number	309
	Turlough name	Frenchbrook South
	Recorders	JM/FON
	Field survey date	16/07/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough, with no nearby rivers or streams to provide surface water inputs. No landowner was spoken to, but evidence from aerial photographs and on the ground show that the area does flood from groundwater. The site was dry at the time of the survey. <i>Cinclidotus fontinaloides</i> covers rocks in the central basin (a swallow hole) and a second rocky basin is also present. Flooding occurs up to the stone wall boundary of the field. One vegetation community was seen, grass-forb dominated by <i>Potentilla anserina</i> . The site was viewed from the edge of the field as stock were present.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	124300 258800
	Approximate area ha	1
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	1

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	100
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	

13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition and is being managed under a suitable grazing regime. There may be a certain amount of nutrient enrichment due to nutrient inputs from cattle, as shown by the lush growth of <i>Potentilla anserina</i> .
	Conservation value	Low
	Comments on conservation value	This site is of low conservation value. No rare plants were recorded. Vegetation community diversity is low.

	Turlough number	312
	Turlough name	Gortnaraha
	Recorders	JM/FON
	Field survey date	16/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough as the primary source of flooding is the stream running through the centre of the basin. The landowner confirms this. Turlough characteristics are present, such as a large fluctuation in water level. The landowner says that some of the flooding dissipates through a swallow hole but this was not observed by the surveyors. <i>Cinclidotus fontinaloides</i> is present on rocks but the predominant source of water seems to be surface water rather than groundwater. The main habitat associated to the feature is improved agricultural grassland.

	Turlough number	315
	Turlough name	Greenwood East
	Recorders	JM/FON
	Field survey date	17/06/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough that floods from groundwater in winter and empties to groundwater in summer. Some temporary surface water flows into the turlough, with a small stream observed at the eastern end. A local landowner (Mr Madden) said that the turlough has flooded higher and drained more slowly in recent years due to some of the drains not being maintained. There are no drains within the main turlough area but there are some on the periphery. At the time of survey, much of the turlough was still flooded. There is a good diversity of vegetation communities present: grass-forb (<i>Phalaris arundinacea</i> / <i>Ranunculus repens</i>) transitioning to fen (<i>Carex nigra</i>) and then to a <i>Polygonum amphibium</i> community that dominates the site.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	145000 280300
	Approximate area ha	10
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	7

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	1
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	7
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	1
8	<i>Polygonum amphibium</i> community	75
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	15
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	1 (<i>Equisetum palustre</i> / <i>Ranunculus repens</i>)
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	

13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓ (little <i>Cinclidotus</i> but much <i>Thamnobryum</i> sp.)
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓ (not permanent)
17	Drains	✓
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	✓

	Condition evaluation	Good
	Comments on condition	The site is in good condition with very little nutrient enrichment. There are the marks of three ring feeders within the turlough, with associated poaching.
	Conservation value	Medium
	Comments on conservation value	This turlough is of medium conservation value. No rare plants were recorded. This is a moderately large site with good vegetation community diversity. Adjacent habitats include wet woodland wet grassland, dry neutral/calcareous grassland and improved agricultural grassland.

	Turlough number	321
	Turlough name	Kiltogorra
	Recorders	JM/FON
	Field survey date	18/06/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough as the area is flooded from groundwater and drains away in summer to groundwater. It was predominantly dry at the time of survey. There is a good diversity of vegetation communities present: scrub transitioning to grass-forb (<i>Potentilla anserina</i> / <i>Ranunculus repens</i>) grading to <i>Eleocharis palustris</i> and then transitioning to an aquatic macrophyte community (<i>Schoenoplectus lacustris</i> or <i>Potamogeton</i> sp. or <i>Equisetum fluviatile</i> / <i>Menyanthes trifoliata</i>). Cattle were grazing the site at the time of the visit.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	119550 257200
	Approximate area ha	6
	Predominant substrate	Mineral with marl
	Predominant basin condition	Dry
	Number of land parcels	6

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	1
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	5
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	74
11	Aquatic macrophyte community	20
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	

13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is generally in good condition. It is grazed by cattle with some low levels of poaching and nutrient enrichment.
	Conservation value	Medium
	Comments on conservation value	This turlough is of medium conservation value. No rare plants were recorded. There is a good diversity of vegetation communities. Adjacent habitats include oak-ash-hazel woodland to the northwest, as well as scrub, dry neutral/calcareous grassland and improved agricultural grassland.

	Turlough number	323
	Turlough name	Knockatotaun
	Recorders	JM/FON
	Field survey date	16/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough, as the landowner said that the area floods from surface water from the surrounding land as the local topography is a bowl and his land is the bottom of the bowl. Flooding is extensive in winter (about 5 ha) and recedes in the summer due to some seepage and evaporation. No springs or sink holes are present on the land. The landowner does refer to the site as a turlough and there are turlough features such as a marl soil and seasonal flooding.

	Turlough number	324
	Turlough name	Knockglass
	Recorders	JM/FON
	Field survey date	10/09/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is no longer a turlough, although it used to be, according to locals. In recent years it has been drained and reseeded. Another turlough, still extant (not surveyed and not on NPWS list), occurs about 300 m southwest of the point, and a further turlough occurs to the southeast (also not surveyed or on NPWS list, but possibly part of the complex formed by sites 273 and 274). The land in this former turlough is now semi-improved wet grassland. Improvements include a large drain (photographed), which has been partially filled with limestone rubble, perhaps to maintain drain porosity.

	Turlough number	325
	Turlough name	Knockysprickaun
	Recorders	JM/FON
	Field survey date	15/06/2015
	Is it a Turlough? (Y / N / U)	U
	Brief description and reason for decision	<p>Unsure as to whether or not this site is a turlough as it may not flood to 50 cm. A winter visit would confirm if this is the case. It was dry at the time of the survey but seems to be a series of flooded pools in winter, judging by the topography and the vegetation growing in hollows. It is also difficult to ascertain whether the main source of the floodwater is surface or groundwater. The landowner confirmed that the area floods, including after heavy rain. Drains have been put in to drain off this excess water but they are only partially effective, with the land remaining damp and fenny. The landowner mentioned a spring but wasn't specific as to where this was. A stream is present to the east and southeast and flooding from this may contribute to flooding of the area. Vegetation communities are as follows: grass-forb (<i>Agrostis stolonifera</i>/<i>Cynosurus cristatus</i>) grading into fen (<i>Carex nigra</i>/<i>Carex rostrata</i>/<i>Hydrocotyle vulgaris</i>) and then to the <i>Eleocharis palustris</i>-<i>Ranunculus flammula</i> community. The feature occurs in an agricultural context but semi-natural habitats are also present.</p>

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	97450 288730
	Approximate area ha	3
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	4

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	25
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	35
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	40
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	

12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

	Notable features (tick if present)	
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	✓
18	Discontinued hedges/walls	
19	Strandline	✓
20	Algal paper	✓
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition, with no sign of nutrient enrichment and an appropriate grazing regime (sheep).
	Conservation value	Medium
	Comments on conservation value	The site is of medium conservation value. No rare plants were seen. However, despite its setting in an agricultural context, with improved agricultural grassland adjacent and fertiliser inputs locally, there are some diverse fen communities present.

	Turlough number	326
	Turlough name	Lisduff
	Recorders	JM/FON
	Field survey date	17/06/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. The landowner confirmed that it floods from and empties to groundwater, filling in November and emptying by May. The site was dry at the time of survey. Sink holes are present and were seen during the survey. There is a large drain to the west of the site but the turlough flooding only reaches this in exceptionally wet years, according to the landowner. There is little diversity in vegetation communities, with only a grass-forb community of <i>Potentilla anserina</i> / <i>Ranunculus repens</i> / <i>Agrostis stolonifera</i> observed.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	140230 269360
	Approximate area ha	2.5
	Predominant substrate	Mineral with some marl
	Predominant basin condition	Dry
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	100
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	

13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition, with no sign of nutrient enrichment and an appropriate grazing regime (cattle). Some previous disturbance has left a large spoil heap on site but this does not appear to be affecting the turlough.
	Conservation value	Low
	Comments on conservation value	This turlough is of low conservation value as it is a small site with little diversity in vegetation communities. No rare plants were recorded. Adjacent habitats are wet grassland, scrub, improved agricultural grassland and recolonising bare ground (spoil heap).

	Turlough number	328
	Turlough name	Loughs Frank
	Recorders	JM/FON
	Field survey date	16/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough but a permanent waterbody with some fluctuations in water level. A local landowner confirmed that a small river runs into the site from the west and out from the east. He does not think that there are any springs in the lake.

Turlough number	331
Turlough name	Mocorha East
Recorders	JM/FON
Field survey date	23/09/2015
Is it a Turlough? (Y / N / U)	Y
Brief description and reason for decision	Yes, this is a turlough. Although there are two permanent lakes within the basin, there is a larger area that floods seasonally from groundwater, according to a local resident. Vegetation zonation is from <i>Lolium</i> grassland to a grass-forb community (<i>Agrostis stolonifera</i> / <i>Potentilla anserina</i>) to aquatic macrophytes (<i>Typha latifolia</i>) or <i>Salix cinerea</i> woodland, to permanent water. Areas that are permanent water, including most of the <i>Typha</i> swamp, were excluded from the turlough area.

(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
Part of a complex of turloughs?	N
Grid reference	123500 254200
Approximate area ha	4
Predominant substrate	Mineral
Predominant basin condition	Dry
Number of land parcels	7

Vegetation communities (%)		
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	1
4	<i>Lolium</i> grassland	65
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	29
11	Aquatic macrophyte community	5
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	

13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is generally in good condition, although the majority of the turlough area is improved agricultural grassland grazed by cattle. The road beside the turlough was raised in recent times and this has changed the hydrology slightly.
	Conservation value	Low
	Comments on conservation value	The site is of low conservation priority. No rare plants were recorded. The permanent water and swamp habitats are of the most conservation interest. Agricultural grassland is the dominant adjacent habitat.

	Turlough number	332
	Turlough name	Moran's Turlough
	Recorders	JM/FON
	Field survey date	10/09/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough, as a local resident confirmed that the area floods in the winter beyond its summer levels. We estimate that the high water flooding is approximately 50 cm above the summer water levels. The lack of <i>Cinclidotus fontinaloides</i> on the walls indicates that water level fluctuation may not attain 50 cm every year. There is no sign of water flow in and out of the turlough other than from groundwater. Zonation is from a grass-forb community (some of which is Annex I 6510 Lowland hay meadows with <i>Leontodon autumnalis</i> / <i>Rhinanthus minor</i> , the remainder <i>Agrostis stolonifera</i> / <i>Ranunculus repens</i>) to transitional <i>Agrostis stolonifera</i> / <i>Equisetum fluviatile</i> to aquatic macrophytes (<i>Equisetum fluviatile</i> / <i>Sparganium</i> sp. or <i>Carex rostrata</i>) to open water. The vegetation communities are difficult to identify and quantify as there is a high degree of gradation from one to the next.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	121750 261290
	Approximate area ha	6
	Predominant substrate	Mineral (some marl and organic)
	Predominant basin condition	Damp
	Number of land parcels	6

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	3
11	Aquatic macrophyte community	95
12	Charophyte community	1
12.1	Other (please specify)	1 (Annex I 6510)
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	

13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition. The grass-forb community is managed by mowing. The aquatic macrophyte communities undergo little management, with some cattle grazing occurring in parts and a group of Mallard utilising other areas. Swans have been seen on the site.
	Conservation value	Medium
	Comments on conservation value	The site is of medium conservation value. No rare plants were recorded. There is good vegetation diversity on site, with Annex I habitat 6510 recorded, estimated at approximately 0.25 ha, although the exact area was difficult to determine as the area was recently mown. Adjacent habitats include dense bracken and agricultural grassland.

	Turlough number	334
	Turlough name	Parks/Carronacon Lough
	Recorders	JM/FON
	Field survey date	16/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. The point lies between two permanent waterbodies (limestone marl lakes FL3) which fluctuate in level by a few metres. The local landowner does not think that there are any springs feeding the lakes. Both lakes appear to be fed from streams (evidence from EPA streams shapefile and on Discovery map) which are themselves fed from Loughs Frank (site 328) overground to Carronacon Lough.

	Turlough number	336
	Turlough name	Pollbeg Turlough
	Recorders	JM/FON
	Field survey date	23/09/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. More than 90% of the vegetation is <i>Schoenoplectus lacustris</i> swamp that was flooded to about 20 cm at the time of the visit. Although the site may dry out for limited periods of the year, to maintain this swamp vegetation the substrate must be saturated for most of the year, which is not consistent with the site being a turlough. This wetland site is of medium conservation value, with relatively diverse Reed and tall sedge (FS1) swamp that has an understorey of <i>Hydrocotyle vulgaris</i> , <i>Mentha aquatica</i> and <i>Carex rostrata</i> . There are small areas of Rich fen (PF1) around the edges of the swamp, with <i>Parnassia palustris</i> and <i>Schoenus nigricans</i> present. Brown mosses were also seen and the fen therefore corresponds to Annex I 7230 Alkaline fen. These fen areas probably flood in the winter.

	Turlough number	340
	Turlough name	Shrule East/Lee Lough
	Recorders	JM/FON
	Field survey date	17/09/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough but rather a permanent lake surrounded by reed swamp (FS1). Adjacent habitat beyond the reed swamp is wet grassland dominated by <i>Juncus effusus</i> all the way to the reeds, indicating that the water level does not periodically extend beyond the edge of the reeds. Examination of the AP series indicates that the lake is permanent and does not dry out.

	Turlough number	346
	Turlough name	Thomastown 2
	Recorders	JM/FON
	Field survey date	17/07/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough that floods from a spring and groundwater in the winter, to a depth of 50 cm, and empties in the summer. The basin was dry at the time of the survey. There is a large channel leading out of the basin and a drain from the spring to this channel. This drainage system stops the turlough from filling as much as it would have historically. There is no vegetation zonation within the turlough, with two vegetation communities forming a mosaic. The two communities are grass-forb (<i>Iris pseudacorus</i> / <i>Holcus lanatus</i>) and fen (<i>Carex panicea</i> / <i>Hydrocotyle vulgaris</i>).

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	124090 260850
	Approximate area ha	2
	Predominant substrate	Organic
	Predominant basin condition	Dry
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	30
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	70
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	

13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	Frogs, Hare

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	✓
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	The hydrology of this turlough has been altered by a drain and large channel. The Iris was being topped at the time of the survey. The site is grazed by sheep and cattle. There were no signs of nutrient enrichment at the time of the survey.
	Conservation value	Low
	Comments on conservation value	This site is of low conservation value. No rare plants were recorded. Vegetation community diversity is low. Agricultural and semi-natural grassland are the only adjacent habitats.

	Turlough number	347
	Turlough name	Tonraha West / Westport Demesne
	Recorders	JM/FON
	Field survey date	15/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. The original point is in a rugby football pitch where no flooding occurs. We checked out the flooded area to the east/southeast and spoke to the landowner here. He said that this area floods but only by surface water. There were no indications of springs in this field (although the landowner mentioned a large spring near the golf course) and no other turlough characteristics were mentioned by the landowner or noted by us.

	Turlough number	350
	Turlough name	Turloughaganny
	Recorders	JM/FON
	Field survey date	16/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough as this is a permanently wet area with a mosaic of swamp, fen and marsh. The area does flood in the winter and water recedes in the summer but a local resident said that the area remains too wet and swampy for cattle to graze, even in the summer. The presence of springs or information on the hydrological regime of the site could not be confirmed as the landowner was not present at the time of the site survey and the other local resident was unsure of these details. Although this site is not a turlough, it is a wetland of conservation value that deserves further study.

	Turlough number	351
	Turlough name	Turloughagurkall (Frenchbrook North)
	Recorders	JM/FON
	Field survey date	16/07/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. At the location of the point, there is an area of PF1 (Schoenus fen) but there was no evidence of water fluctuation and no vegetation zonation. There are karstic features in the area, such as limestone rocks at the surface, and there are other wetland areas, including fen and wet grassland, but no turlough was located. A river channel cuts through the area, draining all adjacent lands. A recently dug, large ditch located 75 m from the survey point also drains the area.

	Turlough number	352
	Turlough name	Turloughatsallain
	Recorders	JM/FON
	Field survey date	18/06/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a small turlough that fills from groundwater. A large sinkhole or mouth of underground river is present at the northwest tip of the site and this is a likely water source. A number of associated ponds that are said by a local to be hydrologically linked are found to the west and southwest. Little vegetation community diversity is present, primarily a grass-forb community (<i>Ranunculus repens</i> / <i>Poa trivialis</i> / <i>Rumex crispus</i>) transitioning to an <i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community with <i>Carex nigra</i> , with a large degree of overlap between the two.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	Y
	Grid reference	115140 256250
	Approximate area ha	2
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	15
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	85
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	

13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition, with no nutrient enrichment evident. It is grazed partly by sheep (eastern field) and grazing levels appear to be appropriate.
	Conservation value	Low
	Comments on conservation value	This turlough is of low conservation value. No rare plants were recorded. There is little vegetation community diversity. It is an interesting area from a hydrological point of view with linked ponds and an underground river.

	Turlough number	359
	Turlough name	Ballyloughan A (1)
	Recorders	JM/FON
	Field survey date	20/07/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough as winter flooding was confirmed by a local man. There were no signs of surface water inflow or outflow, therefore groundwater is the probable source. Little vegetation zonation was observed, the whole area comprising seasonally flooded WN4. <i>Quercus/Fraxinus/Prunus spinosa</i> covers the whole of the small basin. In the ground flora a grass-forb (<i>Ranunculus repens/Agrostis stolonifera</i>) community is present, and the wettest area has some aquatic macrophytes (<i>Carex vesicaria</i>). Flooding within the basin may be short-term and not very deep, as <i>Prunus spinosa</i> was growing in the basin.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	283908 301209
	Approximate area ha	0.1
	Predominant substrate	Organic
	Predominant basin condition	Dry
	Number of land parcels	1

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	100
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris-Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea-Carex panicea</i> community	
10	Grass/forb-dominated community	15
11	Aquatic macrophyte community	5
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	

13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site consists of a woodland area with no obvious management.
	Conservation value	Low
	Comments on conservation value	The site is of low conservation value. No rare plants were recorded. The turlough is within a very small basin. Adjacent habitats are mixed broadleaved and broadleaved/conifer woodland (WD1 and WD2)

	Turlough number	361
	Turlough name	Ballyloughan C (3)
	Recorders	JM/FON
	Field survey date	20/07/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. Although some karstic features, possible swallow holes (photo) and limestone rocks are present, a local resident said that this area does not flood, and there was no evidence to suggest otherwise.

ADDITIONAL DATA FILLED IN BELOW, BUT NOT TURLOUGH

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	284152 300739
	Approximate area ha	0.1
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	1

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	100
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	
	Comments on condition	
	Comments on conservation value	

Turlough number	364
Turlough name	Kilmactrasna B
Recorders	JM/FON
Field survey date	20/07/2015
Is it a Turlough? (Y / N / U)	U
Brief description and reason for decision	<p>Unsure if this is a turlough as hydrological studies may be needed to determine the exact source of the water. The feature is located in seasonally flooded wet woodland, Annex I 91E0, which was almost drained at the time of survey. The flood basin is surrounded by limestone cliffs and there is evidence that water cascades down the cliff walls during winter and at times of heavy rainfall to fill a temporary stream bed and the rest of the basin. Depth of flooding, indicated by an abundance of <i>Fontinalis antipyretica</i>, is approximately 1 m. Most of the vegetation community is woodland (<i>Quercus robur</i>/<i>Fraxinus excelsior</i>/<i>Salix cinerea</i>) with a ground flora of grass-forb (<i>Mentha aquatica</i>/<i>Potentilla anserina</i>) underneath grading into open areas of aquatic macrophytes (<i>Carex vesicaria</i>/<i>Menyanthes trifoliata</i>) and permanent open water. <i>Mercurialis perennis</i> and <i>Melica uniflora</i> were recorded in the wood.</p>

(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
Part of a complex of turloughs?	N
Grid reference	283388 302676
Approximate area ha	2
Predominant substrate	Mineral
Predominant basin condition	Dry
Number of land parcels	1

Vegetation communities (%)		
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	80
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	5
11	Aquatic macrophyte community	20
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		

13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	Frog. Badger sett (H 83431 02570)

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site consists of a woodland area with no obvious management. It is unmodified and very natural in character.
	Conservation value	Medium
	Comments on conservation value	The site is of medium conservation value as a turlough, but occurs within high quality Annex I 91E0 Alluvial woodland. No rare plants were recorded and the site is small in size. Vegetation community diversity is low, mostly woodland. However, the wet woodland surrounded by high limestone cliffs is impressive and the site may be important for bryophytes (high bryophyte cover was noted). This site is worthy of further studies.

	Turlough number	365
	Turlough name	Monaltyduff/Monalty
	Recorders	JM/FON
	Field survey date	20/07/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough but rather is a permanent waterbody surrounded by FS1 Reed swamp and WN6 Wet woodland (Annex I habitat 91E0). There is also a river flowing into the lake and then the water flows out into the adjoining Monalty Lake. If there is any seasonal variation in water level, it was not apparent during the site visit. The wet woodland may flood during the winter.

	Turlough number	366
	Turlough name	Moylan Lough
	Recorders	JM/FON
	Field survey date	20/07/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. Approximately two-thirds of the winter-flooded area remains under permanent water in summer. The site was viewed at almost the lowest water level (July) and only about one-third of the site was not submerged, even these areas appearing to be still swampy.

	Turlough number	367
	Turlough name	Tonyellida (no longer exists)
	Recorders	JM/FON
	Field survey date	20/07/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	This is no longer a turlough, although according to a local landowner it used to be, before the new N2 was built. Formerly, the field northwest of NPWS's potential turlough point filled from groundwater first and the field with the point filled next. However, as part of works for the N2 the water was piped away to the southeast. In very wet weather the landowner said some water does quickly come up and disappear after a few days, but there is no evidence of long-standing water anywhere in this field, which is a <i>Lolium perenne</i> / <i>Trifolium repens</i> sward grazed by sheep.

	Turlough number	368
	Turlough name	Annaghmore Lough
	Recorders	SB/OD/SK/JM/FON/PP
	Field survey date	10/04/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough but a permanent lake. It was deemed not be be a turlough on the grounds of insufficient fluctuation of water level, evident from successive aerial photos and type of habitats on the ground: Alkaline fen (likely Annex I) and reed beds, with a marl lake (also likely Annex I) constituting the core of the site. There was no evidence that the level of the lake fluctuates sufficiently to be considered a turlough, or that the lake basin ever comes close to emptying completely.

	Turlough number	370
	Turlough name	Ardkillin Lough
	Recorders	FON/DD
	Field survey date	30/07/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. A local farmer who lives opposite the turlough said that the water body rises only slightly in wet weather and that a permanent lake is present all year. Water flows via a large drain to the east to another nearby lake.

	Turlough number	371
	Turlough name	Ardmore
	Recorders	FON/DD
	Field survey date	28/07/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough, flooding from groundwater and emptying back to groundwater via sinkholes (multiple on site). A drain cuts through the turlough but does not prevent the area from flooding. Zonation is very gradual and poorly defined. Vegetation community transitions are from grass-forb (<i>Potentilla anserina</i> / <i>Ranunculus repens</i>) to fen (<i>Carex nigra</i> / <i>Mentha aquatica</i> / <i>Calliergonella cuspidata</i>) to a pond with aquatic macrophytes (<i>Potamogeton</i> sp./ <i>Alisma plantago-aquatica</i>) to permanent water (pond or drain). At the northern end of the site and north of the drain, there is also a <i>Phalaris arundinacea</i> sward adjacent to an <i>Eleocharis palustris</i> sward. These areas also apparently flood, but it is unclear exactly how they link hydrologically to the rest of the site. A local resident who lives adjacent to the turlough said that the site floods to at least 2 m. <i>Cinclidotus fontinaloides</i> was evident half-way up hedgerows and to the top of fencelines.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	176420 300830
	Approximate area ha	16
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	8

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	1
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	15
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	5
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	73
11	Aquatic macrophyte community	1
12	Charophyte community	
12.1	Other (please specify)	5 (<i>Phalaris</i> sward)
12.2	Other (please specify)	
12.3	Other (please specify)	

Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	✓
17	Drains	✓
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is grazed by a suckler herd of about 30 animals. Some poaching was noted in areas that are still damp, such as beside sinkholes and fencelines. A very small amount of algal growth was noted in the pond, but given the size of the catchment area this is no cause for concern.
	Conservation value	Low
	Comments on conservation value	This site is of low conservation value. No rare plants were recorded. The site is relatively large and has reasonable vegetation community diversity, with a diversity of aquatic macrophytes in the permanent pond. The site is located in an agricultural context, with agricultural grassland, wet grassland and hedgerows the main adjacent habitats.

	Turlough number	376
	Turlough name	Ballymacurley South
	Recorders	FON/DD
	Field survey date	29/07/2015
	Is it a Turlough? (Y / N / U)	U
	Brief description and reason for decision	This is likely to be a turlough but the height of the high water mark, extent of the flooding and source of the water is unclear. A local man confirmed that the area floods. A small amount of <i>Cinclidotus</i> and evidence of a strandline was seen on one short stretch of wall. A fen vegetation community with <i>Carex nigra</i> / <i>Potentilla palustris</i> / <i>Filipendula ulmaria</i> is the dominant community on site, grading in places into an <i>Eleocharis</i> community (<i>E. palustris</i> / <i>Iris pseudacorus</i>). Patches of <i>Juncus effusus</i> are present in parts of the broad, flat basin, which suggests that the area may not flood for extensive periods of time.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	181700 271600
	Approximate area ha	13
	Predominant substrate	Mineral
	Predominant basin condition	Damp
	Number of land parcels	5

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	95
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	5
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	

13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	✓
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	This site is in good condition. There is no nutrient enrichment and a moderate diversity of species within the community. Very little poaching was seen, and the site is grazed extensively by cattle.
	Conservation value	Low
	Comments on conservation value	This site is of low conservation value. No rare plants were recorded. Vegetation community diversity is low.

	Turlough number	377
	Turlough name	Black Lake Roscommon
	Recorders	FON/DD
	Field survey date	27/07/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough but is a permanent lake surrounded by reed and large sedge swamp FS1 (<i>Carex paniculata</i> and <i>Phragmites australis</i>). A Coillte forester was spoken to, and he confirmed that the lake never dries out and barely fluctuates in size throughout the year. Annex I 91E0 Wet woodland is adjacent to the lake.

	Turlough number	381
	Turlough name	Canbo Lough
	Recorders	FON/DD
	Field survey date	28/07/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. It is a permanent lake with extensive reed beds (FS1) around the periphery. A local man, who used to fish the lake for trout, said that this lake is connected to the adjacent lake to the west. Rivers and streams enter the lakes.

Turlough number	385
Turlough name	Carrownagashel
Recorders	FON/DD
Field survey date	27/07/2015
Is it a Turlough? (Y / N / U)	Y
Brief description and reason for decision	Yes, this is a turlough but it is at least partly fed from two streams at the surface, but drains to groundwater. The landowner said that there were swallow holes but these were not visible as the turlough was flooded due to recent rain. Minimal zonation was seen, with the dominant vegetation community of grass-forb (<i>Agrostis stolonifera</i> / <i>Ranunculus repens</i> / <i>Potentilla anserina</i>) grading into a small <i>Eleocharis palustris</i> community with <i>Phalaris arundinacea</i> .

(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
Part of a complex of turloughs?	N
Grid reference	185350 300150
Approximate area ha	4
Predominant substrate	Mineral
Predominant basin condition	Damp
Number of land parcels	3

Vegetation communities (%)		
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	1
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	99
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓

13.7	Other (including invertebrates)	
------	---------------------------------	--

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	✓

	Condition evaluation	Good
	Comments on condition	The site is generally in good condition, but a small area is overgrazed by horses. The remainder is cattle-grazed at an appropriate level. No nutrient enrichment was observed.
	Conservation value	Low
	Comments on conservation value	This site is of low conservation value. No rare plants were recorded. There is very little vegetation community diversity. The site occurs in an agricultural context, with adjacent habitats all reflecting this.

	Turlough number	386
	Turlough name	Carrownure 1
	Recorders	JM/FON
	Field survey date	06/08/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough but is an area of fen (PF) which has recently been drained. Adjacent fields that were once fen or bog have been drained and improved and are now improved agricultural grassland. In the vicinity of the point there was no evidence of winter flooding, but there may have been before the extensive system of drains were recently dug.

Turlough number	387
Turlough name	Carrownure 2
Recorders	JM/FON
Field survey date	06/08/2015
Is it a Turlough? (Y / N / U)	Y
Brief description and reason for decision	Yes, this is a small turlough in a basin surrounded by <i>Iris pseudacorus</i> . It floods from groundwater in winter and empties to groundwater in spring, according to the landowner. Evidence from <i>Cinclidotus fontinaloides</i> on walls is that the water rises to about 1 m. One vegetation community is present on site, a grass-forb community with <i>Agrostis stolonifera</i> , <i>Potentilla anserina</i> and <i>Persicaria hydropiper</i> the main species.

(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
Part of a complex of turloughs?	N
Grid reference	188560 237980
Approximate area ha	0.35
Predominant substrate	Mineral
Predominant basin condition	Damp
Number of land parcels	2

Vegetation communities (%)		
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	100
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓

13.7	Other (including invertebrates)	
------	---------------------------------	--

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	There is some poaching as the ground is too damp for the number of cattle currently grazing it. A small amount of nutrient enrichment was noted due to dumping of a manure heap at the edge of the turlough.
	Conservation value	Low
	Comments on conservation value	The site is a low conservation priority. No rare plants were recorded. Only one vegetation community is present. Agricultural grassland occurs within and adjacent to the turlough.

	Turlough number	391
	Turlough name	Clogher Lough
	Recorders	FON/DD
	Field survey date	28/07/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. It is a permanent lake with reed swamp (FS1) at the edges. The eastern end, described on the NPWS files as being more turlough-like, was viewed but was deemed not to have enough turlough features to classify even this area as a turlough. A local resident was spoken to who confirmed that the lake is permanent and does not dry out.

	Turlough number	398
	Turlough name	Corrabeg
	Recorders	FON/DD
	Field survey date	30/07/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. The landowner and another local man said it floods and rises several feet in winter and normally dries out in summer, allowing cattle to walk across it easily. It was partially flooded at the time of the survey (recent weather of frequent heavy rain). Because of this flooding, the vegetation communities were difficult to access and distinguish between, but the area appears to be dominated by a community of <i>Glyceria fluitans</i> / <i>Ranunculus lingua</i> / <i>Phalaris arundinacea</i> . Other vegetation types present are an <i>Eleocharis palustris</i> community, a grass-forb community (<i>Potentilla anserina</i> / <i>Agrostis stolonifera</i> / <i>Carex hirta</i> / <i>Myosotis</i> sp.) and an aquatic macrophyte community with <i>Callitriche</i> sp. A stand of <i>Schoenoplectus lacustris</i> is present in the centre of the flooded area, possibly at the site of a drinking pond dug for cattle (mentioned by one man). The wetland area west of the large drain that runs north to south was not included within the turlough's area calculation as this area does not appear to undergo fluctuating water levels.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	186200 280100
	Approximate area ha	10
	Predominant substrate	Mineral (v. black)
	Predominant basin condition	Flooded
	Number of land parcels	6

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	1
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	13
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	10
11	Aquatic macrophyte community	1
12	Charophyte community	
12.1	Other (please specify)	75 (<i>Glyceria fluitans</i> / <i>Phalaris arundinacea</i> / <i>Ranunculus lingua</i>)

12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	Dragonflies

	Notable features (tick if present)	
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	✓
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	✓ (very slight)
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	Poaching is evident on very wet ground. Only a very small amount of algae was noted, indicating no significant nutrient enrichment.
	Conservation value	Medium
	Comments on conservation value	This site is of medium conservation value. A large stand of a wetland community with <i>Ranunculus lingua</i> dominates, but several other communities are also present. No rare plants were recorded. Although vegetation community diversity is thought to be good, the extent of some of the communities and the nature of zonation between them was difficult to establish due to flooding. The site is surrounded by improved agricultural grassland.

	Turlough number	405
	Turlough name	Fin Lough Roscommon
	Recorders	FON/DD
	Field survey date	27/07/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough but is reed swamp (FS1) between an Annex I 91E0 wet woodland and a permanent lake. There is coniferous forestry plantation at the edges of the wet woodland and swamp. No landowners were spoken to, but it appears that the area remains permanently swampy and any winter flooding is more likely to arise from the nearby lake and forest drainage channels than from groundwater.

	Turlough number	413
	Turlough name	Kinnity
	Recorders	FON/DD
	Field survey date	30/07/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a large turlough which floods annually from groundwater. It was almost totally dry at the time of survey, though some pools remained at the lowest points of the basin. Locals said that it floods the road in some years. Almost all vegetation was within a grass-forb community, mainly <i>Potentilla anserina</i> / <i>Phalaris arundinacea</i> / <i>Persicaria maculosa</i> , and locally abundant <i>Stellaria media</i> in very disturbed areas. Livestock (cattle and horses) graze the turlough, and this prevented access to some of the fields on the day of survey. However, viewing these fields from the edges, it appears that the vegetation community is constant throughout. Small amounts of scrub (<i>Crataegus monogyna</i>) and limestone grassland (<i>Galium verum</i> / <i>Prunella vulgaris</i> / <i>Trifolium pratense</i> / <i>Achillea millefolium</i>) are present at the top of the basin.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	184810 272430
	Approximate area ha	15
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	8

	Vegetation communities (%)	
1	Limestone grassland	1
2	Flooded pavement	
3	Woodland/scrub	1
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	98
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	

13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	✓

	Condition evaluation	Poor
	Comments on condition	Some areas are badly poached. One field appears to have been severely disturbed in the past (bare soil and ruderal species present) but it is now recolonising. There were no signs of nutrient enrichment.
	Conservation value	Low
	Comments on conservation value	This site is of low conservation value. No rare plants were recorded. Vegetation community diversity is low. The site exists in an agricultural context and most adjacent habitat is agricultural grassland.

	Turlough number	414
	Turlough name	Knockalegan East/Heathfield
	Recorders	FON/DD
	Field survey date	29/07/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough but appears to be a seasonal lake fed by surface water. An adjacent landowner confirmed that the land floods, but he said that this comes from surface water (streams, drains and rainfall). A swallow hole is present at the point but this has had a trench cut deep into its entry point and the river within this trench runs into the swallow hole with a strong flow. The vegetation shows no signs of zonation or periodic flooding near the swallow hole, and no <i>Cinclidotus fontinaloides</i> was seen on site.

	Turlough number	415
	Turlough name	Knockroe
	Recorders	FON/DD
	Field survey date	28/07/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough, with no streams entering or leaving the basin. The water level fluctuates, as indicated by Phalaris reeds on the higher sides of the basin, which is deep and round. An adjacent landowner said that the water level rises to about 5 feet, and he mentioned the presence of caves in the immediate vicinity. Only grass-forb communities are present, with a Phalaris arundinacea/Filipendula ulmaria community grading into an Agrostis stolonifera/Glyceria fluitans/Persicaria maculosa sward, to permanent water. There is a very low occurrence and diversity of broadleaf herbs.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	186860 294270
	Approximate area ha	0.2
	Predominant substrate	Mineral
	Predominant basin condition	Damp
	Number of land parcels	1

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	100
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	

13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	Generally this site is in good condition. A very small amount of algae was present in the water, but unlikely to be cause for concern.
	Conservation value	Low
	Comments on conservation value	The site is of low conservation value. No rare plants were recorded. It is a small site with low vegetation community diversity. However, potential Annex I 6510 Lowland hay meadows are adjacent to the site.

	Turlough number	417
	Turlough name	Lismurtagh
	Recorders	FON/DD
	Field survey date	29/07/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a small turlough, located approximately 300 m north of the original point (adjusted grid ref below). The centre is thought to occur at a group of Cinclidotus-covered rocks, probably a sinkhole, and a small flow of surface water runs underground under them. A grass-forb community of <i>Iris pseudacorus</i> / <i>Potentilla anserina</i> / <i>Elytrigia repens</i> transitions to fen with <i>Carex nigra</i> / <i>Filipendula ulmaria</i> / <i>Mentha aquatica</i> . The actual extent of the area within the influence of the turlough proper is unclear; a winter survey would be useful to clarify this. Evidence from the landform suggests that the fen habitat immediately surrounding the grass-forb habitat is within the zone of flooding and so it has been included in the calculation of this turlough's area. The landowner confirmed that the area floods extensively. She was unsure of the water source but thought probably groundwater. The habitat at the original point was not thought to conform to a turlough, consisting of very wet and species-diverse fen near which a number of large drains converge. There is no evidence of water level fluctuation in this area, with no <i>Cinclidotus</i> or algal paper on fence lines. Between this area and the turlough is a small field pond in a depression in a field which was also not deemed to be a turlough. A small population of white <i>Prunella vulgaris</i> was found near the turlough area.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	180820 278250
	Approximate area ha	1
	Predominant substrate	Mineral
	Predominant basin condition	Damp
	Number of land parcels	1

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	70
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	30

11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	✓ (adjacent but not within turlough itself)
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	The site is poached by horses in very wet areas. Six horses were grazing the area during the survey. There were no obvious signs of nutrient enrichment.
	Conservation value	Low
	Comments on conservation value	This turlough is of low conservation value as it is small in extent, no rare plants were recorded and vegetation community diversity is low (though the fen component is relatively diverse). However, it forms part of a botanically diverse wetland, which has a good suite of species such as <i>Ranunculus lingua</i> , <i>Potentilla palustris</i> , <i>Geum rivale</i> , <i>Mentha aquatica</i> , <i>Valeriana officinalis</i> , <i>Carex rostrata</i> , <i>C. nigra</i> , and <i>Menyanthes trifoliata</i> . It is being managed by extensive grazing. This wetland area may be worthy of further study.

	Turlough number	419
	Turlough name	Lissonuffy
	Recorders	FON/DD
	Field survey date	30/07/2015
	Is it a Turlough? (Y / N / U)	U
	Brief description and reason for decision	This is probably a turlough as locals say water floods high in the winter and recedes quickly in spring. The soil is well-drained. However, a large drain runs though the site and a small stream runs close to, and possibly into, the wetland. Hence we are unsure of the relative influences of surface and groundwater on the flooding regime. The only vegetation community is a grass-forb community of <i>Agrostis stolonifera</i> / <i>Potentilla anserina</i> / <i>Filipendula ulmaria</i> / <i>Mentha aquatica</i> , with <i>Phalaris arundinacea</i> present through large areas. <i>Senecio aquaticus</i> is locally frequent to abundant. Some parts of the site, including the permanent waterbody southwest of the point, could not be visited due to a suckler herd.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	193290 277050
	Approximate area ha	11
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	6

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	100
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	

13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	Coot nest. Hare.

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	✓
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The areas walked were generally in good condition, though some poaching from cattle was evident. There was no evidence of nutrient enrichment.
	Conservation value	Low
	Comments on conservation value	The site is a low conservation priority. No rare plants were recorded. The vegetation community diversity is low. Adjacent habitats are comprised of agricultural grassland and wet grassland.

	Turlough number	433
	Turlough name	Shad Lough
	Recorders	FON/DD
	Field survey date	29/07/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough, this is a permanent lake. Locals spoken to confirm that the area of the lake does not fluctuate significantly and that this is a permanent lake. This is supported by aerial photograph evidence.

	Turlough number	439
	Turlough name	Turlaghnamuck
	Recorders	FON/DD
	Field survey date	28/07/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough fed by and draining to groundwater. A local man spoken to confirmed that the area tends to flood a couple of days after heavy rainfall. There are no streams, springs or swallow holes. He said it never goes fully dry but the water shrinks to a small drinking pool used by cattle. This was the situation at the time of survey. Vegetation zonation was evident, though the basin was so flat that the zones tended to form mosaics with each other rather than forming defined zones. Zonation was from a grass-forb community (<i>Agrostis stolonifera</i> or <i>Iris pseudacorus</i> to <i>Glyceria fluitans</i> / <i>Persicaria maculosa</i> / <i>Myosotis</i> sp.) to an <i>Eleocharis palustris</i> community, to aquatic macrophytes (<i>Sparganium</i> sp. to <i>Potamogeton</i> sp.) to open water.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	185080 290210
	Approximate area ha	2
	Predominant substrate	Mineral
	Predominant basin condition	Damp
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	15
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	70
11	Aquatic macrophyte community	15
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	

13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	Some disturbance has occurred due to cattle grazing and farm management (a pile of rocks was noted near one permanent pool). A small amount of algal growth was seen in the pool, though only small amounts of algal paper seen on fence wires. The site does not appear to be overly nutrient enriched.
	Conservation value	Low
	Comments on conservation value	This site is of low conservation value, although adjacent habitats of semi-natural calcareous grassland and a limestone ridge add value to the site. No rare plants were recorded. Some diversity of communities was noted. The site exists in an agricultural context.

	Turlough number	440
	Turlough name	Ballinlig
	Recorders	JM/FON
	Field survey date	09/09/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough, although it has several features that are similar to turloughs. Water fluctuation does occur, but a drain leaves the lake to enter nearby Lough Agh when water reaches a certain level. There was water still present, right to the edge of the basin, at the time of the site visit. Locals confirm that this lake never fully dries out. Presence of a discontinued wall and fence suggest that the water level may drop more in drier periods. However, the presence of permanent water (estimated at more than 30 cm deep) in the majority of the basin rules this out as a turlough.

Turlough number	443
Turlough name	Carrigans Upper ponds
Recorders	JM/FON
Field survey date	07/08/2015
Is it a Turlough? (Y / N / U)	Y
Brief description and reason for decision	Yes, this is a turlough with an adjacent well/spring acting as a significant source of water for the basin. Approximately one-third of the basin is permanently flooded, one-third is <i>Eleocharis palustris</i> swamp, and one-third is a grass-forb (<i>Agrostis stolonifera</i> / <i>Ranunculus repens</i>) community. The landowner said that the turlough floods in the winter, almost reaching the road.

(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
Part of a complex of turloughs?	N
Grid reference	166520 317430
Approximate area ha	1
Predominant substrate	Mineral
Predominant basin condition	Damp
Number of land parcels	1

Vegetation communities (%)		
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	50
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	50
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓

13.7	Other (including invertebrates)	
------	---------------------------------	--

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	✓

	Condition evaluation	Fair
	Comments on condition	The site is in fair condition, with some areas showing signs of excessive poaching.
	Conservation value	Low
	Comments on conservation value	The site is of low conservation value. No rare plants were recorded. Only two vegetation communities occur on site and adjacent habitats are mostly semi-natural neutral grassland.

Turlough number	446
Turlough name	Drinaghan field ponds
Recorders	JM/FON
Field survey date	07/08/2015
Is it a Turlough? (Y / N / U)	Y
Brief description and reason for decision	Yes, this is a small turlough which is fed from groundwater. It starts to fill in October and generally dries out around May, according to the landowner. The basin was formerly cut for turf and the substrate is still organic. The main vegetation community is <i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> , with zonation from woodland to grass-forb (<i>Potentilla anserina</i> / <i>Senecio aquaticus</i> / <i>Agrostis stolonifera</i>) to <i>Eleocharis-Ranunculus</i> . The grid ref for this turlough was moved approximately 350 m east of the original point.

(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
Part of a complex of turloughs?	N
Grid reference	165080 335650
Approximate area ha	0.7
Predominant substrate	Organic
Predominant basin condition	Damp
Number of land parcels	2

Vegetation communities (%)		
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	1
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	75
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	25
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	

13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition with no signs of nutrient enrichment or inappropriate grazing.
	Conservation value	Low
	Comments on conservation value	The site is of low conservation priority. No rare plants were recorded. Agricultural habitats occur adjacent to the turlough.

	Turlough number	449
	Turlough name	Lough Agh
	Recorders	JM/FON
	Field survey date	09/09/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough, this is a permanent lake. Pike are present, and an overground stream runs from this lake to Lough Arrow.

	Turlough number	451
	Turlough name	Lough Availe
	Recorders	JM/FON
	Field survey date	09/09/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. The point was in a wet poor flush/fen (Juncus effusus/Sphagnum spp.), no evidence of a turlough or even of a lake. Adjacent habitats were Corylus woodland on steep slopes and wet heath.

	Turlough number	453
	Turlough name	Lough Labe
	Recorders	JM/FON
	Field survey date	09/09/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough, it is a permanent lake. It is stocked with brown and rainbow trout by Ballymote & District Angling Club. There is Annex I 91E0 Alluvial woodland adjacent.

	Turlough number	454
	Turlough name	Lough Nasool
	Recorders	JM/FON
	Field survey date	09/09/2015
	Is it a Turlough? (Y / N / U)	U
	Brief description and reason for decision	<p>Unsure if this is a turlough or not. Three years ago and a few times in the last 50 years, according to a local, the lake empties to groundwater via a series of swallowholes in the centre, leaving just a layer of mud. One local put the frequency of this occurrence at every 3-5 years, another thought it was much less frequent. The lake therefore may be filling and emptying via an estavelle, sometimes a source of water (in conjunction with the nearby river, which was diverted towards the lake during construction of a local house) and sometimes a sink. At the time of the survey, however, the lake was as high as it has ever been at this time of year, according to locals, with few communities visible to photograph except a small amount of the <i>Eleocharis palustris</i>-<i>Ranunculus flammula</i> community at the edge and Charophytes (<i>Chara</i> sp.) in the water. Water was too high to collect data on other features, it would need to be visited in a year when the lake empties completely.</p>

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	179400 317450
	Approximate area ha	8
	Predominant substrate	Mineral with marl
	Predominant basin condition	Flooded
	Number of land parcels	Could not determine

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	10
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	
11	Aquatic macrophyte community	
12	Charophyte community	1
12.1	Other (please specify)	
12.2	Other (please specify)	

12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

	Notable features (tick if present)	
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition, as far as can be determined, but adjacent coniferous forestry provides a route for pollution and siltation to enter the waterbody.
	Conservation value	Medium
	Comments on conservation value	This site is of medium conservation priority on the basis of its size and unusual hydrology. Semi-natural habitats are adjacent (wet grassland). No rare plants were recorded, but the view was restricted by water.

Turlough number	460
Turlough name	Treanmacmurtagh
Recorders	JM/FON
Field survey date	09/09/2015
Is it a Turlough? (Y / N / U)	Y
Brief description and reason for decision	Yes, this is a turlough. It was dry at the time of the visit, with a swallow hole visible in the centre. No river or stream runs in or out, and it appears to fill from groundwater. Vegetation zonation is apparent, with a grass-forb community (<i>Agrostis stolonifera</i> / <i>Ranunculus repens</i> / <i>Potentilla anserina</i>) giving way to an aquatic macrophyte community (<i>Phalaris arundinacea</i> / <i>Carex cf. vesicaria</i>), with <i>Polygonum amphibium</i> occurring in both communities.

(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
Part of a complex of turloughs?	N
Grid reference	173650 312650
Approximate area ha	1
Predominant substrate	Mineral with marl
Predominant basin condition	Dry
Number of land parcels	2

Vegetation communities (%)		
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	97
11	Aquatic macrophyte community	3
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	

13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	✓
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Poor
	Comments on condition	The site is in poor condition, with heavy poaching throughout, although there was little bare soil and good vegetation cover through these poached areas. The site is grazed non-intensively by cattle.
	Conservation value	Low
	Comments on conservation value	The site is of low conservation priority. No rare plants were recorded. Vegetation community diversity is low. The site is small. Adjacent habitats include wet grassland, woodland and wet heath.

	Turlough number	469
	Turlough name	Cornaling Lough
	Recorders	JM/FON
	Field survey date	03/09/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. It is filled during the winter via a temporary stream that flows from a nearby spring-fed lake and empties to groundwater via underground streams, according to the landowner. Vegetation zonation is from a grass-forb community (<i>Potentilla anserina</i> - or <i>Agrostis stolonifera</i> -dominated) to an <i>Eleocharis palustris</i> community to aquatic macrophytes (<i>Schoenoplectus lacustris</i> or <i>Carex paniculata</i> / <i>Menyanthes trifoliata</i>).

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	186060 192920
	Approximate area ha	3
	Predominant substrate	Mineral with marl
	Predominant basin condition	Dry
	Number of land parcels	4

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	5
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	40
11	Aquatic macrophyte community	55
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓

13.7	Other (including invertebrates)	
------	---------------------------------	--

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	✓
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	✓

	Condition evaluation	Fair
	Comments on condition	60% of the site is in good condition, with good vegetation community diversity and no grazing, as the area is fenced off. 40% is in bad condition as it is overgrazed, with large areas of poaching. A supplementary feeder within this part of the turlough increases cattle density within the basin.
	Conservation value	Medium
	Comments on conservation value	The site is of medium conservation priority. No rare plants were recorded. Good vegetation community diversity is present, with extensive areas of swamp (dry at the time of the visit). Adjacent habitats are agricultural grassland and broadleaved (beech) woodland.

	Turlough number	470
	Turlough name	Downamona
	Recorders	JM/FON
	Field survey date	01/09/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. There is evidence that some areas flood to at least 50 cm deep at times during the year. The basin was mostly dry at the time of the survey but is predominantly filled by groundwater in winter (October to May), according to a local resident. Three-quarters of the turlough appears never to be grazed, with swamp and marsh communities present. The other quarter is intensively utilised with bare soil, poaching, nutrient enrichment and a raised road/track built through it. Some vegetation zonation is apparent, with zonation going from a grass-forb community of <i>Agrostis stolonifera</i> / <i>Mentha aquatica</i> to <i>Equisetum fluviatile</i> or <i>Polygonum amphibium</i> (on periphery of flood zone) or woodland scrub (<i>Salix cinerea</i>).

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	185600 176050
	Approximate area ha	1
	Predominant substrate	Organic/Mineral 50/50
	Predominant basin condition	Damp
	Number of land parcels	4

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	3
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	10
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	77
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	10 (<i>Equisetum fluviatile</i>)
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	

13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	✓

	Condition evaluation	Poor
	Comments on condition	The site is in poor condition as 75% has no management and the remainder is intensively utilised, with poaching, bare ground and nutrient enrichment evident. A large dairy herd was present in adjacent fields at the time of the survey.
	Conservation value	Low
	Comments on conservation value	The site is of low conservation priority. No rare plants were recorded. Adjacent habitats are predominantly agricultural fields. There is some vegetation diversity but it is mostly rank, or else intensively utilised.

	Turlough number	479
	Turlough name	Rahinane
	Recorders	JM/FON
	Field survey date	01/09/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough, although it is unclear what proportion floods from groundwater and how much from the temporary river that flows through the drain system. The hydrology of the system has been altered due to Ardnacrusha artificially increasing water levels in the Shannon. A pumping station used to drain Rahinane Turlough when water level was high, pumping the water into the canal. Vegetation community zonation is evident, with <i>Lolium</i> grassland giving way to a grass-forb community (<i>Potentilla anserina</i> / <i>Mentha aquatic</i>) grading through a transitional zone of <i>Agrostis stolonifera</i> / <i>Polygonum amphibium</i> into an <i>Eleocharis palustris</i> / <i>Agrostis stolonifera</i> community, and finally to <i>Phalaris arundinacea</i> .

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	196850 196400
	Approximate area ha	25
	Predominant substrate	Mineral with marl
	Predominant basin condition	Dry
	Number of land parcels	7

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	88
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	1
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	10
11	Aquatic macrophyte community	1
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	

13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	✓ (dry during survey)
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition. Most of the area is intensively managed for dairy cattle, but no nutrient enrichment or overgrazing was observed.
	Conservation value	Low
	Comments on conservation value	The site is of low conservation priority. No rare plants were recorded. Adjacent habitats are all agricultural grassland. Lapwing were observed on a pond nearby, and this turlough could be of value for birds.

	Turlough number	491
	Turlough name	Boherdotia
	Recorders	JM/FON
	Field survey date	01/09/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough as there are no signs of prolonged annual flooding in the vegetation (GA1 improved agricultural grassland). A local resident said that the land does flood but the water depth is less than 30 cm. He also said that there are springs and underground streams in the vicinity.

	Turlough number	510
	Turlough name	Carrick
	Recorders	JM/FON
	Field survey date	05/05/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this site is a turlough because it is filled and emptied via groundwater. A local man said that the water level fluctuates with Lough Sheelin via groundwater. Some vegetation zonation is evident, with a grass-forb community (<i>Agrostis stolonifera</i> / <i>Ranunculus repens</i>) transitioning to <i>Phalaris</i> grassland transitioning to <i>Rorippa amphibia</i> . At the southern end of the site, the turlough basin is dominated by <i>Salix</i> scrub. The basin was still flooded at the time of survey.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	240342 283697
	Approximate area ha	1
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	1

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	7
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	92
11	Aquatic macrophyte community	1
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	

13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓ (not thought to be permanent)
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	✓
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	The condition of the turlough is negatively impacted by some nutrient enrichment evidenced by much algae present under the water but none on the surface. The grassland appears to be appropriately grazed.
	Conservation value	Medium
	Comments on conservation value	This turlough is of medium conservation value. No rare plants were recorded. There is some habitat diversity, including reasonably extensive <i>Salix</i> scrub within the southern part of the turlough basin. Adjacent habitats include oak-ash-hazel woodland on the limestone ridge and semi-natural dry neutral/calcareous grassland.

	Turlough number	518
	Turlough name	Mullaghmeen Forest 6
	Recorders	JM/FON
	Field survey date	21/04/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. It was flooded at the time of survey. Three small drains from adjacent forestry cut through the turlough basin. Some vegetation zonation is exhibited, with <i>Urtica dioica</i> giving way to <i>Potentilla anserina</i> / <i>Potentilla reptans</i> / <i>Elytrigia repens</i> . Open water was present on the day of survey, but <i>P. anserina</i> was still visible under the water. There was evidence on the ground of water fluctuation, with a strandline, algal paper and vegetation zonation apparent. The basin most likely dries out completely in the summer. The depth of water on the day of survey was approximately 20 cm.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	Y (further turloughs in woodland approximately 200 m north)
	Grid reference	247708 277506
	Approximate area ha	0.25
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	1

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	80
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	20 (<i>Urtica dioica</i>)
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	

13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	Old otter spraints

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	✓
18	Discontinued hedges/walls	
19	Strandline	✓
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	Nutrient enrichment is evident, with algal growth and nettles recorded. Old dumping of barrels, tyres and other waste has taken place in the past. Commercial broadleaf forestry (Sycamore and Beech) with associated drains is adjacent.
	Conservation value	Low
	Comments on conservation value	This turlough is of low conservation value due to negative impacts (dumping and nutrient enrichment), and its low community diversity and small size. The conservation value potential is higher, however, in that flooded 91E0 Alluvial woodland occurs nearby (<i>Ranunculus auricomus</i> was found here). The woodland flooding may also form part of this turlough, or a separate turlough, but a winter visit or hydrological studies would be required to confirm this. Other turloughs are present nearby in the woodland. Coillte have mapped this site 518 on their information board as a turlough, and are therefore aware of its conservation value.

	Turlough number	519
	Turlough name	Mullaghmeen Forest 7
	Recorders	JM/FON
	Field survey date	21/04/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a small turlough. Some areas were still flooded at the time of the site visit, water depth was approximately 10 cm and a <i>Potentilla anserina</i> / <i>Agrostis stolonifera</i> community was visible under the water. The flooded extent of the turlough is indicated by the extent of the <i>Potentilla anserina</i> community. There was evidence of water fluctuation but no water influx or outflow points were seen.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	247939 277491
	Approximate area ha	0.1
	Predominant substrate	Mineral
	Predominant basin condition	Damp
	Number of land parcels	1

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	100
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	

13.7	Other (including invertebrates)	
------	---------------------------------	--

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	Nutrient enrichment was noted, as shown by algal growth. The turlough is surrounded by commercial broadleaf forestry (Sycamore).
	Conservation value	Low
	Comments on conservation value	This turlough is of low conservation value. No rare plants were noted. Vegetation community diversity is low (only one community recorded), the site occupies only one land parcel and the adjacent habitat is commercial forestry.

Turlough number	520
Turlough name	Mullaghmeen Forest 8
Recorders	JM/FON
Field survey date	21/04/2015
Is it a Turlough? (Y / N / U)	Y
Brief description and reason for decision	Yes, this is a turlough. Some flooding was still present at the time of the survey, but the basin was almost drained, with a depth of approximately 15 cm at its deepest point. Vegetation zonation occurs, with scrub (<i>Rubus</i>) giving way to <i>Urtica dioica</i> / <i>Elytrigia repens</i> , grading into a <i>Potentilla anserina</i> / <i>Agrostis stolonifera</i> grass-forb community, dominated by <i>A. stolonifera</i> in places. The water was evidently higher over the winter, with evidence of water fluctuation noted, and algal paper deposited on drier vegetation.

(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
Part of a complex of turloughs?	N
Grid reference	247967 277401
Approximate area ha	0.1
Predominant substrate	Mineral
Predominant basin condition	Damp
Number of land parcels	1

Vegetation communities (%)		
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	1
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	90
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	9 (<i>Urtica dioica</i> / <i>Elytrigia repens</i>)
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	

13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	✓
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	Nutrient enrichment was evident, with algal growth and nettles recorded. Commercial broadleaf (Sycamore) forestry is adjacent, and a drain is present on site.
	Conservation value	Low
	Comments on conservation value	This turlough is of low conservation value. No rare plants were noted. It is small in size. The site occupies only one land parcel. The adjacent habitat is commercial forestry, which may be impacting negatively on the turlough. Other turloughs occur in the vicinity.

	Turlough number	521
	Turlough name	Sheskernagh
	Recorders	JM/FON
	Field survey date	23/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. The landowner said he uses this lake as a pumped water source for his animals. The lake is lined to about 25 m down and he said that it would not dry out if he was not extracting water.

	Turlough number	527
	Turlough name	Lickbla
	Recorders	JM/FON
	Field survey date	22/04/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough as the area is predominantly filled from groundwater via a spring. There is a drain, which was originally a small stream, leading from the turlough to a nearby river. The landowner informed us that all the water in the turlough usually drains away by July, leaving the ground within the basin dry enough to walk across. Due to the majority of the site still being flooded at the time of the site visit, very little zonation of the vegetation was observed, with <i>Lolium</i> grassland at the top of the turlough giving way to a grass-forb community (<i>Agrostis stolonifera</i> / <i>Glyceria fluitans</i> / <i>Rorippa</i> sp.) that dominates the basin.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	245495 275541
	Approximate area ha	2
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	4

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	5
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	95
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	

13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓ (not permanent)
17	Drains	✓
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The condition of the turlough is negatively impacted by some nutrient enrichment with algal growth on the water surface. Generally the grazing level appears to be appropriate and overall the whole system is in good condition.
	Conservation value	Medium
	Comments on conservation value	This turlough is of medium conservation value and is one of the larger turloughs surveyed within the local area in 2015, although it is very small by national standards. No rare plants were recorded during the field survey. Some bird diversity was recorded, with swans, tufted duck and black-headed gulls observed. The diversity of vegetation communities within the turlough basin is low with one community dominating. The site is adjacent to agricultural grassland and treelines.

	Turlough number	528
	Turlough name	Cullenhugh
	Recorders	JM/FON
	Field survey date	20/04/2015
	Is it a Turlough? (Y / N / U)	U
	Brief description and reason for decision	The status of this feature is unclear and a summer visit would be beneficial. It is a flooded complex of five small pools in the middle of mixed woodland. Two of the pools were no longer flooded on the day of the survey, while some still had water present, the largest approximately 50 cm deep. <i>Agrostis stolonifera</i> , <i>Galium palustre</i> , <i>Glyceria fluitans</i> and <i>Ranunculus repens</i> occupy the centre of the pool, where algal growth is also present. It was not clear from the survey how much the water level drops in summer. Slight zonation of vegetation communities was noted, with woodland flora giving way to <i>Calliergonella cuspidata</i> , followed by <i>Ranunculus repens</i> / <i>Glyceria fluitans</i> . There was evidence of water fluctuation but no obvious point of influx or outflow. Aerial roots of Ash were evident above the existing water level, indicating that water levels may reach this height at peak flooding.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	Y
	Grid reference	240107 260102
	Approximate area ha	0.25 (including all pools within complex)
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	1

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	90
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	

13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	There is some evidence of nutrient enrichment with algal growth on the water surface. The feature is in mixed woodland, mainly Larch and Spruce, so future effects from commercial harvesting (brash, disturbance, siltation) are likely.
	Conservation value	Low
	Comments on conservation value	This turlough is of low conservation value. No rare plants were recorded during the field survey. The adjacent habitat is commercial forestry. The turlough is small in extent, occupying one land parcel only. Other turloughs are present within a few kilometres of this site, and another confirmed turlough, 532, is present within the same 10 km square.

	Turlough number	529
	Turlough name	Walshestown
	Recorders	JM/FON
	Field survey date	23/06/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough fed by underground water from the adjacent lake. The landowner's son was unsure whether this link is artificial or natural. It is likely that some permanent water and swamp remains in summer but the majority of the area appears to dry out. Zonation is from a grass-forb community (<i>Agrostis stolonifera</i> / <i>Persicaria maculosa</i>) to <i>Eleocharis palustris</i> / <i>Agrostis stolonifera</i> / <i>Potentilla anserina</i> to an <i>Agrostis stolonifera</i> / <i>Sparganium</i> scraw to <i>Sparganium</i> in open water. A dry ditch was seen on site. The <i>Eleocharis palustris</i> community was more diverse than usually found, with <i>Poa trivialis</i> , <i>Galium palustre</i> and <i>Glyceria fluitans</i> found throughout also. Adjacent habitats are GS2/GSi4 meadows.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N, but linked to spring-fed lake, possibly via underground stream or pipe.
	Grid reference	240050 254050
	Approximate area ha	0.75
	Predominant substrate	Mineral
	Predominant basin condition	Dry/Damp 50/50
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	52
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	20
11	Aquatic macrophyte community	20
12	Charophyte community	
12.1	Other (please specify)	3 (<i>Spar errec</i> / <i>Agro stol</i> scraw)
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	

13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	✓ (dry ditch)
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition. No nutrient enrichment was noted and levels of grazing appear to be appropriate level.
	Conservation value	Low
	Comments on conservation value	This turlough is of low conservation value. No rare plants were recorded. There is some level of community diversity but the turlough exists in an agricultural setting (meadows).

	Turlough number	530
	Turlough name	Culleen Beg
	Recorders	JM/FON
	Field survey date	20/04/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough as the landowner informed us that this small seasonal lake was predominantly fed by surface water in the winter and drained by a stream that has been piped underneath Mullingar Rugby Club to prevent flooding on their grounds. He said that in heavy rain a temporary stream can be seen flowing down the hillside into the lake. There is always some water in this lake, but it is sometimes reduced to approximately 10 m x 10 m.

	Turlough number	531
	Turlough name	Ballynagal
	Recorders	JM/FON
	Field survey date	20/04/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. The turlough was flooded at the time of the site visit but according to the landowner the water level fluctuates during the year and the basin is almost dry in summer. <i>Cinclidotus fontinaloides</i> was visible on rocks, indicating that some drop in water level had already occurred. The vegetation community zonation is as follows: Woodland to a grass-forb community (<i>Phalaris arundinacea</i> / <i>Potentilla anserina</i>) to <i>Persicaria hydropiper</i> / <i>Glyceria fluitans</i> to aquatic macrophytes (<i>Carex rostrata</i> / <i>Carex vesicaria</i>). The flooded turlough is composed of two linked pools, both approximately 50 cm deep. No obvious inflow or outflow of water was seen, and no drains are present.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	242845 258353
	Approximate area ha	0.15
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	3
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	37
11	Aquatic macrophyte community	30
12	Charophyte community	
12.1	Other (please specify)	15 (<i>Pers hydr</i> / <i>Glyc flu</i>)
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	

13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	Nutrient enrichment was evident as algal growth on the water surface and algal paper on vegetation. The site adjoins Coillte forestry, so there may be negative effects arising from this. Cattle grazing occurs around the site, though the site was not grazed at the time of survey. There could also be negative effects in the future if this were to become more intensive.
	Conservation value	Medium
	Comments on conservation value	This turlough is of medium conservation value. No rare plants were recorded during the field survey. There is a diversity of habitats, though these are not necessarily very species-diverse, though the timing of the survey (April) may have affected this. The site is adjacent to commercial forestry, but also to semi-natural wet woodland (Alder, Ash), with semi-natural neutral grassland and <i>Rubus</i> scrub also adjacent.

	Turlough number	532
	Turlough name	Knockbody/Martinstown
	Recorders	JM/FON
	Field survey date	20/04/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough, known locally as the "gully-hole". It is a medium-sized basin and was full at the time of the survey. According to the landowner it is hydrologically linked to Lough Derravaragh and the basin does not drop or dry out until May or June when the level of Lough Derravaragh drops. The basin is estimated at about 1 m depth. At the time of the survey open water covered about 60% of the basin, the rest was mainly dominated by a grass-forb community (<i>Agrostis stolonifera</i> / <i>Rorippa nasturtium-aquaticum</i> / <i>Lythrum salicaria</i> / <i>Galium palustre</i>), with <i>Glyceria fluitans</i> in deeper water and some <i>Phalaris arundinacea</i> also present in places.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	245466 262480
	Approximate area ha	0.6
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	40
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	

13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	✓
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The turlough is in good condition. No signs of nutrient enrichment or algal growth were noted during the survey. Grazing intensity is low.
	Conservation value	Medium
	Comments on conservation value	This turlough is of medium conservation value. No rare plants were recorded during the field survey. The site is small but it extends across two land parcels and is located in a semi-natural landscape. Adjacent habitats are semi-natural dry neutral grassland and Ash woodland.

	Turlough number	533
	Turlough name	Carlanstown
	Recorders	JM/FON
	Field survey date	22/04/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough, consisting of a flooded basin and an area of deeper (approximately 1 m deep) water also present. The landowner confirmed that the area can drain fully in dry summers, reaching its lowest levels in September. The turlough is spring-fed from a point to the south; however, the deepest part is to the north. Some receding of water was noted to have occurred since winter. Vegetation zonation is from <i>Agrostis stolonifera</i> / <i>Mentha aquatica</i> / <i>Myosotis</i> sp. to <i>Glyceria fluitans</i> / <i>Potamogeton</i> sp. to open water. Outflow is through an underground stream at the north of the turlough, which runs about 1 km to the northeast beyond the sand pits.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	244350 277030
	Approximate area ha	1
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	1

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	45
11	Aquatic macrophyte community	25
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	

13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	Coot

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The turlough is generally in good condition. A small amount of algal growth was noted at the edges, where cattle have access to the water, but there are otherwise very few signs of nutrient enrichment overall. Grazing is at an appropriate level.
	Conservation value	Medium
	Comments on conservation value	This turlough is of medium conservation priority. No rare plants were recorded during the field survey. Despite its small size there is a diversity of plant communities and a general lack of nutrient enrichment. Semi-natural scrub surrounds the feature. Adjacent habitats include semi-improved grassland, and the basin is surrounded by hedgerows and scrub comprised of hawthorn and blackthorn. The turlough is hydrologically connected to other water sources locally via springs and rivers.

Turlough number	534
Turlough name	Ardnagross
Recorders	JM/FON
Field survey date	22/04/2015
Is it a Turlough? (Y / N / U)	Y
Brief description and reason for decision	Yes, this is a turlough. It is fed by a spring that maintains a small area of permanent water. Zonation of vegetation is present, with a grass-forb sward giving way to <i>Equisetum fluviatile</i> / <i>Mentha aquatica</i> , grading into either <i>Carex rostrata</i> or <i>Salix</i> scrub. Upper areas of the grass-forb sward have frequent <i>Cirsium arvense</i> , indicating some nutrient enrichment. <i>Agrostis stolonifera</i> is the main component of the grass-forb community. At the time of the visit, most of the site was dried out or damp. Note this turlough is part of the Castletown Ardnagross 1 turlough NPWS turlough site 2014_511, the two appear to be part of the one turlough. Grid ref given is a point in the middle of the two.

(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
Part of a complex of turloughs?	Y
Grid reference	245200 278370
Approximate area ha	0.7
Predominant substrate	Mineral
Predominant basin condition	Damp
Number of land parcels	2

Vegetation communities (%)		
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	10
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	58
11	Aquatic macrophyte community	7
12	Charophyte community	
12.1	Other (please specify)	25 (<i>Equisetum fluviatile</i> / <i>Mentha aquatica</i>)
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	

13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	Algal growth is frequent throughout. Grazing levels are appropriate and half of the site is fenced to prevent cattle entering.
	Conservation value	Medium
	Comments on conservation value	This turlough is of medium conservation value. No rare plants were noted. Despite its small size there is reasonable vegetation community diversity, with the site spread across two land parcels and fencing allowing <i>Salix</i> scrub to develop. Semi-improved grassland is the main adjacent habitat. There is a spring in the west of the turlough.

	Turlough number	537
	Turlough name	Loughanstown
	Recorders	JM/FON
	Field survey date	20/04/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. The basin was flooded at the time of survey. The land slopes upwards to a cattle-grazed hillock. According to a local resident, the water drains away in summer, although it was not clear if it drained away completely. No obvious zonation of vegetation was apparent at the time of the survey, largely due to flooding, and a summer visit would be useful to view the full range of vegetation zonation. A grass-forb community of <i>Agrostis stolonifera</i> / <i>Rumex</i> sp. appears to give way to a mixed community of <i>Equisetum fluviatile</i> / <i>Rorippa nasturtium-aquaticum</i> / <i>Callitriche</i> sp./ <i>Mentha aquatica</i> / <i>Persicaria</i> sp. with copious amounts of algae, and finally to open water.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	242830 259440
	Approximate area ha	0.5
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	1

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	10
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	60 (<i>Equi fluv</i> / <i>Callitriche</i> sp./ <i>Persicaria</i> sp./ <i>Ment aqua</i>)
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	

13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	Coot (nesting)

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	✓ (overgrazed)

	Condition evaluation	Fair
	Comments on condition	Nutrient enrichment is evident through algal growth, and the turlough is situated in agricultural farmland. Intensive cattle grazing occurs on the low hill in the field in which the turlough occurs.
	Conservation value	Medium
	Comments on conservation value	This turlough is of medium conservation priority. No rare plants were recorded. A nesting coot was present at the time of the survey. A diversity of habitats occurs in the basin generally. The site is adjacent to farmland and to a road. A spring appears to enter the site at a point near the road.

	Turlough number	538
	Turlough name	Freaghmore 1
	Recorders	JM/FON
	Field survey date	05/05/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this site is not a turlough because all inputs are from surface water. Drains enter and leave the flooded area and flooding appears to be present because of the poorly draining gleyed soils. The site appears to consist of flooded wet grassland (<i>Agrostis stolonifera</i> / <i>Juncus effusus</i>) and the flooded drainage ditch (<i>Glyceria fluitans</i>).

	Turlough number	539
	Turlough name	Freaghmore 2
	Recorders	JM/FON
	Field survey date	05/05/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this site is not a turlough because all inputs are from surface water. There is a drain linking the flooded basin to the surface water. No drain is visible leaving the flooded areas. There are two flooded pools present.

	Turlough number	540
	Turlough name	Castletown Upper
	Recorders	JM/FON
	Field survey date	22/04/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. At the time of survey the basin was flooded, though the water level had dropped slightly since winter. According to the landowner, an area of permanent water remains at the southern end, but otherwise most of the basin dries out. A spring occurs in a field to the south. The landowner said that groundwater from the turlough empties into an underground stream that links with a larger river to the north. Zonation of vegetation occurs, with a grass-forb community of <i>Agrostis stolonifera</i> / <i>Ranunculus aquatilis</i> / <i>Myosotis</i> sp. grading into an <i>Equisetum fluviatile</i> / <i>Glyceria</i> sp. community, on to <i>Menyanthes trifoliata</i> , and finally to permanent water. There was no obvious strandline. A small amount of algal growth was noted. Nesting coot, black-headed gulls, swans and little grebe were present at the time of survey.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	244575 278575
	Approximate area ha	0.6
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	1
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	10
11	Aquatic macrophyte community	25
12	Charophyte community	
12.1	Other (please specify)	59 (<i>Equi fluv</i> / <i>Glyce flui</i> / <i>Ranu aqua</i>)
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	

13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	✓ (v. low overall)
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The turlough is in good condition, with little algal growth apparent, appropriate grazing in the vicinity of the water, and several water fowl species noted on the day of survey.
	Conservation value	Medium
	Comments on conservation value	This turlough is of medium conservation value. No rare species were noted. There are only slight signs of nutrient enrichment. There is a diversity of vegetation communities. Semi-improved dry neutral grassland is adjacent, and a permanent waterbody is adjacent to the turlough at its southern end.

	Turlough number	541
	Turlough name	Hammondstown 1
	Recorders	JM/FON
	Field survey date	23/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. Although it is probably filled from groundwater, the water level does not drop significantly during the summer and the site is a permanent lake. A local landowner said he had only seen the lake dry out on one occasion in 1965.

	Turlough number	542
	Turlough name	Hammondstown 1
	Recorders	JM/FON
	Field survey date	23/06/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough that is filled from groundwater and according to the landowner the turlough does empty some years. The soil is a blue clay and the landowner thinks this reduces/slows down the emptying of the turlough over the summer. At the time of the survey the site was still flooded and 35% of the site appeared to be permanent water, but it probably does drain away in drier years. Vegetation zonation is from a grass-forb community (<i>Alopecurus geniculatus</i> / <i>Ranunculus repens</i>) transitioning to <i>Glyceria fluitans</i> or <i>Eleocharis palustris</i> swamp, and then to <i>Polygonum amphibium</i> or <i>Potamogeton</i> communities.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	249300 276600
	Approximate area ha	0.65
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	3
8	<i>Polygonum amphibium</i> community	1
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	21
11	Aquatic macrophyte community	20
12	Charophyte community	
12.1	Other (please specify)	20 (<i>Glyceria fluitans</i>)
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	

13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	✓

	Condition evaluation	Good
	Comments on condition	The site is in good condition with no obvious nutrient enrichment. Cattle grazing at the time of survey was a little too high with some poaching evident.
	Conservation value	Low
	Comments on conservation value	This turlough is of low conservation value. No rare plants were recorded. It is a small feature, though with some vegetation community diversity. The site exists in an agricultural context, with improved agricultural grassland the dominant adjacent habitat.

Turlough number	543
Turlough name	Gortloney 1
Recorders	JM/FON
Field survey date	23/06/2015
Is it a Turlough? (Y / N / U)	Y
Brief description and reason for decision	Yes, this is a turlough. Water floods an irregular basin in winter. The landowner does not think that it floods from rainwater or surface water. No rivers or streams flow into it. The main vegetation community is grass-forb (<i>Trifolium repens</i> / <i>Ranunculus repens</i> / <i>Festuca rubra</i> , with occasional <i>Agrostis stolonifera</i>) transitioning to <i>Eleocharis palustris</i> / <i>R. repens</i> and then to <i>Polygonum amphibium</i> . The area is sheep-grazed at an appropriate level. There is no evidence of nutrient enrichment.

(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
Part of a complex of turloughs?	N
Grid reference	255708 273737
Approximate area ha	1
Predominant substrate	Mineral
Predominant basin condition	Dry
Number of land parcels	1

Vegetation communities (%)		
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	5
8	<i>Polygonum amphibium</i> community	1
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	94
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	

13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	The site is in good condition. Grazing is appropriate and no signs of nutrient enrichment were seen.
	Conservation value	Low
	Comments on conservation value	This turlough is of low conservation value. No rare plants were recorded. Vegetation community diversity is low with a grass-forb community dominating. The turlough is also small. The dominant adjacent habitat is dry neutral grassland.

	Turlough number	544
	Turlough name	Gortloney 2
	Recorders	JM/FON
	Field survey date	23/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough. Although there is some fluctuation in water level, this was not deemed to be enough, with an estimated 80-90% of the swamp (dominated by <i>Glyceria fluitans</i> with <i>Sparganium</i> and <i>Oenanthe aquatica</i>) judged to remain in summer. The landowner said that this area does not dry out as much as the adjacent site (543). Deep standing water was present throughout at the time of the site visit.

	Turlough number	545
	Turlough name	Gortloney 3
	Recorders	JM/FON
	Field survey date	24/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough but an area of lawn (GA2). The landowner said that the area did flood in the past due to the small river/ditch adjacent to the property flooding in the winter. The drain has now been cleared and there is no longer any flooding.

	Turlough number	546
	Turlough name	Gortloney 4
	Recorders	JM/FON
	Field survey date	23/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough but an area of improved grassland (GA1). The maintenance officer at the meat packing factory adjacent to the site said that the area never floods. The site is within a natural basin and could have once been a turlough but if groundwater does come towards the surface it would be carried away by the large drain just south of the site.

	Turlough number	547
	Turlough name	Baltrasna/Moylagh-Inishatinney Lough
	Recorders	JM/FON
	Field survey date	05/05/2015
	Is it a Turlough? (Y / N / U)	U
	Brief description and reason for decision	It is not clear whether this site is a turlough as the hydrology is unknown. The site consists of a large flooded basin with a stream flowing into it from the west but there is no visible point of outflow, therefore it appears to drain to groundwater. Vegetation communities are diverse: a <i>Phalaris arundinacea</i> - or <i>Agrostis stolonifera</i> -dominated grass-forb community transitions to an <i>Equisetum fluviatile</i> community with <i>Mentha aquatica</i> or <i>Hippuris vulgaris</i> . There were large areas of open water at the time of survey but the landowner said the area dries out completely, or almost so, in the summer. Further hydrological studies are needed to confirm whether this is a turlough or not.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	253200 276000
	Approximate area ha	1
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	4

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	1
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	20
11	Aquatic macrophyte community	20
12	Charophyte community	
12.1	Other (please specify)	59 (<i>Equi fluv</i> / <i>Ment aqua</i> / <i>Hipp vulg</i>)
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	

13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	Greater pond snail

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	✓
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	This potential turlough is in good condition. The water was clear with no signs of nutrient enrichment. Grazing in adjacent land appears to be at an appropriate level.
	Conservation value	Medium
	Comments on conservation value	This potential turlough is of medium conservation value. It is a large site with good quality water. There is a diversity of vegetation communities present on site. No rare plants were recorded. Adjacent habitats are oak-ash-hazel woodland, scrub and semi-improved grassland to the north and east, while the grassland to the northwest is semi-natural.

	Turlough number	548
	Turlough name	Lough Crew
	Recorders	JM/FON
	Field survey date	06/05/2015
	Is it a Turlough? (Y / N / U)	U
	Brief description and reason for decision	We are unsure whether this is a turlough or not, but it is probably not, as an estimated 50% of the basin remains flooded most years and the landowner has only seen the lake empty once in his lifetime. The basin fills and empties via groundwater (underground stream). Vegetation zonation is evident, with <i>Agrostis stolonifera</i> giving way to <i>Equisetum fluviatile</i> / <i>Myosotis</i> sp., on to <i>Potamogeton</i> sp. and then to open water. The underground stream that fills the basin comes to the surface 5m before the edge of lake and runs underground from Lough Crew.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	257190 274910
	Approximate area ha	1.2
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	8

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	10
11	Aquatic macrophyte community	5
12	Charophyte community	
12.1	Other (please specify)	30 (<i>Equisetum fluviatile</i> / <i>Myosotis</i> sp.)
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	

13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	✓
19	Strandline	✓
20	Algal paper	
21	Evidence of nutrient enrichment	
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Good
	Comments on condition	This potential turlough is in good condition. No nutrient enrichment was observed and appropriate grazing levels are maintained by sheep and cattle.
	Conservation value	Medium
	Comments on conservation value	This potential turlough is of medium conservation value. No rare plants were recorded. There is a reasonable level of vegetation diversity and the site is a relatively large area of clear water without nutrient enrichment. Adjacent habitats are beech woodland, dry neutral grassland and wet grassland.

	Turlough number	549
	Turlough name	Knocklough
	Recorders	JM/FON
	Field survey date	06/05/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough as the water level does not fluctuate. A local man (landowner's brother) said it is probably spring-fed and flows out through an overground stream. The level remains more or less constant all year round. The habitats present are Carex rostrata-dominated transition mire (PF3) and rich fen (PF1) on the edges with Carex nigra and Calliergonella cuspidata. This site is of conservation value, especially in Co. Meath, presenting a natural complex of habitats.

	Turlough number	550
	Turlough name	Belleek 1
	Recorders	JM/FON
	Field survey date	06/05/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough, fed by groundwater according to a local resident. There are no visible streams, rivers or drains leading in or out. Some vegetation zonation is evident: a grass-forb community (<i>Agrostis stolonifera</i> / <i>Ranunculus repens</i>) grading into a variable <i>Equisetum fluviatile</i> / <i>Ranunculus flammula</i> / <i>Glyceria fluitans</i> / <i>Mentha aquatica</i> community, on to an aquatic macrophyte community with <i>Menyanthes trifoliata</i> , and then to open water. The area was flooded at the time of survey. The local man said it did not dry out completely last year (2014) but the 2005 aerial photo shows the area fully dried out. Depth of water at the time of the survey was in excess of 50 cm.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	Y
	Grid reference	256825 274220
	Approximate area ha	0.5
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	1

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	10
11	Aquatic macrophyte community	30
12	Charophyte community	
12.1	Other (please specify)	60 (<i>Equisetum fluviatile</i> / <i>Mentha aquatica</i>)
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	

13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	Swan

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	✓

	Condition evaluation	Poor
	Comments on condition	This turlough is in poor condition. It is negatively impacted by nutrient enrichment (algae present) and overgrazing, with the edges of the turlough very poached.
	Conservation value	Low
	Comments on conservation value	This turlough is of low conservation value. No rare plants were recorded. There is some vegetation community diversity but it is within an intensive agricultural context with some overgrazing and algal growth on the water surface.

	Turlough number	551
	Turlough name	Belleek 2
	Recorders	JM/FON
	Field survey date	06/05/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough as the landowner confirmed that the area empties and fills via groundwater. The site is part of a complex of turloughs in the locality. Within the turlough basin there is one vegetation community of <i>Agrostis stolonifera</i> / <i>Ranunculus repens</i> . The site was flooded at the time of the site visit but the water level had dropped below the high flood mark.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	Y
	Grid reference	256674 274261
	Approximate area ha	0.2
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	1

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	100
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓

13.7	Other (including invertebrates)	
------	---------------------------------	--

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓ (not permanent)
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	This turlough is negatively impacted by nutrient enrichment and infilling with concrete blocks on one edge. The grazing appears to be at an appropriate level.
	Conservation value	Low
	Comments on conservation value	This turlough is of low conservation value. No rare plants were recorded and there was only one vegetation community present. Nutrient enrichment and infilling are impacting on this small turlough. The dominant adjacent habitat is improved agricultural grassland.

	Turlough number	552
	Turlough name	Piggotstown 1
	Recorders	JM/FON
	Field survey date	24/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough but a small permanent lake that is spring fed. There appears to be very little water fluctuation in the lake. This lake is linked to two smaller ones to the northeast. According to the landowner, they are linked by underground drains. The middle small lake was also flooded at the time of the visit but the smallest far lake was dry. The site was discounted as a turlough as it is only connected to groundwater via an artificial drain.

	Turlough number	553
	Turlough name	Piggotstown 2
	Recorders	JM/FON
	Field survey date	24/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	<p>Although this is a seasonal lake, we do not consider it to be a turlough. In part, this is due to the vegetation communities recorded, with swamp habitat (FS1 and FS2) dominating the area. A local landowner thinks that the water source is mostly rainwater and that standing water remains due to the impermeable rock in the area (confirm with geological map). This was confirmed by a second landowner who said that the area is filled by surface water and in the winter a temporary flow of water can be seen coming down the hill from the northwest and filling the lake. Some areas with <i>Oenanthe aquatica</i> qualify as Annex I habitat 6430 Tall-herb swamp. This site is linked to site 555 via a ditch, which contained deep water at the time of survey. During the site visit a diversity of dragonflies and damselfies were noted and seven lapwing were seen.</p>

	Turlough number	554
	Turlough name	Lakefield 1
	Recorders	JM/FON
	Field survey date	24/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough, as a local landowner said that this site is an artificial pond dug in the 19th century to drain surrounding land. There is a spring 300 m to the north that used to flood land (extinct turlough), but underground drainage and a surface drain were dug in the 19th century to drain this area of land into the artificial pond. This site has not been classified as a turlough due to the fact that it is an artificial pond and it is not directly linked to groundwater. The pond was flooded at the time of survey but the landowner said that it can dry out.

	Turlough number	555
	Turlough name	Piggotstown/Lakefield
	Recorders	JM/FON
	Field survey date	24/06/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	<p>Although this is a lake with some seasonal fluctuations in water levels, we do not consider it to be a turlough. This is partly due to the vegetation communities observed, with <i>Phalaris arundinacea</i> swamp (FS1), <i>Equisetum fluviatile</i> swamp and <i>Oenanthe aquatica</i> swamp (FS2) abundant, indicating that conditions remain waterlogged throughout the year. Further evidence comes from local landowners, who said that water remains in the lake all year. One local landowner thought the water source was mostly rainwater and that standing water remained all year due to the impermeable rock in the area (confirm with geological map). A second landowner thought it must be spring fed as a stream flows out to the south and that there must therefore be a spring to maintain some water in the lake all year. Some areas with <i>Oenanthe aquatica</i> also had <i>Myosotis scorpioides</i>, <i>Mentha aquatica</i> and <i>Equisetum fluviatile</i> and would qualify as Annex I habitat 6430. This site is linked to site 553 via a drain, which contained deep water at the time of the visit.</p>

	Turlough number	556
	Turlough name	Stirrupstown
	Recorders	JM/FON
	Field survey date	06/05/2015
	Is it a Turlough? (Y / N / U)	N
	Brief description and reason for decision	No, this is not a turlough because it consists mostly of Typha swamp and Schoenus fen that is permanently waterlogged. It is possibly fed by a small spring but the landowner feels that, as the area is in a natural basin surrounded by higher ground, the wetland is likely to be fed by surface water from surrounding hillocks. The vegetation forms a floating scraw. The area dries out to a degree in the summer, but not completely, with permanent water remaining. The site consists of two separate lobes, and the easterly one is a small area of PF3 Transition mire with an Equisetum fluviatile/Typha latifolia community.

Turlough number	557
Turlough name	Dungummin Upper 1
Recorders	JM/FON
Field survey date	05/05/2015
Is it a Turlough? (Y / N / U)	Y
Brief description and reason for decision	Yes, this is a turlough. No surface inputs via rivers or ditches were seen. The landowner confirmed that the basin fills up in winter from under the surface, and dries out completely in summer. Little zonation was noted, with an <i>Agrostis stolonifera</i> -dominated grass-forb community giving way to a <i>Polygonum amphibium</i> community. The site was flooded at the time of the survey but had receded since it was viewed two weeks previously. Golden plover and lapwing were noted during that first visit.

(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
Part of a complex of turloughs?	Y
Grid reference	252350 282850
Approximate area ha	0.75
Predominant substrate	Mineral
Predominant basin condition	Flooded
Number of land parcels	2

Vegetation communities (%)		
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	50
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	50
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
Notable species (tick if present)		
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	

13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	Golden plover, lapwing, other water fowl

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓ (not permanent)
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Poor
	Comments on condition	The site is very nutrient-enriched. The owner said that he applies some manure in the summer. The site is grazed for 6-8 weeks when dry. However it does not appear to be overgrazed. Some infilling with rubble was noted, and a heap of manure was also present at the edge of the turlough. The site is in an intensively managed dairy farm.
	Conservation value	Low
	Comments on conservation value	This turlough is of low conservation value. No rare plants were recorded. The turlough is very nutrient-enriched with high algal cover. Diversity of vegetation communities within the site is low, as is the diversity of adjacent habitats, which are primarily Lolium-dominated agricultural grassland.

	Turlough number	558
	Turlough name	Dungummin Upper 2
	Recorders	JM/FON
	Field survey date	21/04/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. It occurs across two land parcels and was flooded at the time of survey. Vegetation zonation is as follows: <i>Lolium perenne</i> grassland gives way to a grass-forb community of <i>Agrostis stolonifera</i> / <i>Ranunculus repens</i> , to <i>Persicaria hydropiper</i> , and finally to open water. Cattle graze adjacent fields. The depth of water was 20-30 cm at the time of the visit, but the landowner said that the depth can be up to 1.5 m. No obvious inflow or outflow points were evident, but the landowner mentioned a spring. He noted that water fluctuations can occur rapidly and several times over the winter. Several locals said that an underground stream runs from this turlough.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	252715 283150
	Approximate area ha	0.5
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	30
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	10
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	30 (<i>Persicaria hydropiper</i>)
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	

13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓ (not permanent)
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	✓
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	There is some evidence of nutrient enrichment, with algal growth noted during the survey. The turlough is in an agricultural area, with extensive cattle grazing taking place (4 head of cattle were grazing in one field during the survey, with none in the second field).
	Conservation value	Low
	Comments on conservation value	This turlough is of low conservation priority. No rare plants were recorded. Adjacent habitats are all semi-improved, and other turloughs occur in the vicinity.

	Turlough number	559
	Turlough name	Dungummin Upper 3
	Recorders	JM/FON
	Field survey date	21/04/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough, and it is part of a turlough complex, linking into turlough site 557 during winter flooding. It was still flooded during this survey. The deepest water was approximately 50 cm. The landowner said that the water level drops slowly over the summer to almost dry conditions. Zonation of vegetation is as follows: a grass-forb community (<i>Phalaris arundinacea</i> or <i>Agrostis stolonifera</i> / <i>Ranunculus repens</i>) to <i>Equisetum fluviatile</i> / <i>Rorippa nasturtium-aquaticum</i> / <i>Myosotis</i> sp. to <i>Glyceria</i> sp./ <i>Persicaria</i> sp. to open water. No obvious inflow/outflow points were seen.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	Y
	Grid reference	252580 282750
	Approximate area ha	0.5
	Predominant substrate	Mineral
	Predominant basin condition	Flooded
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	1
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	15
11	Aquatic macrophyte community	
12	Charophyte community	
12.1	Other (please specify)	80 (<i>Polygonum</i> sp./ <i>Glyceria fluitans</i>)
12.2	Other (please specify)	4 (<i>Equi fluv</i> / <i>Rori nast-aq</i>)
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	
13.4	<i>Viola persicifolia</i>	

13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	✓
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	✓
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Fair
	Comments on condition	There is some evidence of nutrient enrichment, with algal growth noted during the survey. Tractor tracks were obvious at the water's edge, so water extraction may occur.
	Conservation value	Low
	Comments on conservation value	This turlough is of low conservation value. No rare plants were recorded during the field survey. The site is characterised by some diversity of vegetation communities. Adjacent habitats are semi-improved, and other turloughs occur in the vicinity.

	Turlough number	560
	Turlough name	Ballyloughan
	Recorders	JM/FON
	Field survey date	20/07/2015
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough. It was dry at the time of the survey but a large area of bare mud and dry algae, as well as large amounts of <i>Fontinalis antipyretica</i> on the rocks, showed that the basin had been flooded. No obvious surface water flows in or out of the basin and it is assumed that it fills and empties from groundwater. Only two vegetation communities with zonation were noted. A grass-forb community of <i>Persicaria maculosa</i> / <i>Potentilla anserina</i> / <i>Ranunculus repens</i> grades into an aquatic macrophyte community of <i>Sparganium erectum</i> / <i>Oenanthe</i> sp./ <i>Lemna trisulca</i> , with large areas of bare mud and dry algae present.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	N
	Grid reference	284011 301019
	Approximate area ha	0.5
	Predominant substrate	Mineral
	Predominant basin condition	Dry
	Number of land parcels	2

	Vegetation communities (%)	
1	Limestone grassland	
2	Flooded pavement	
3	Woodland/scrub	
4	<i>Lolium</i> grassland	
5	<i>Eleocharis acicularis</i> community	
6	Fen community	
7	<i>Eleocharis palustris</i> - <i>Ranunculus flammula</i> community	
8	<i>Polygonum amphibium</i> community	
9	<i>Molinia caerulea</i> - <i>Carex panicea</i> community	
10	Grass/forb-dominated community	50
11	Aquatic macrophyte community	50
12	Charophyte community	
12.1	Other (please specify)	
12.2	Other (please specify)	
12.3	Other (please specify)	
	Notable species (tick if present)	
13.1	<i>Potentilla fruticosa</i>	
13.2	<i>Frangula alnus</i>	
13.3	<i>Teucrium scordium</i>	

13.4	<i>Viola persicifolia</i>	
13.5	<i>Limosella aquatica</i>	
13.6	<i>Cinclidotus fontinaloides</i>	
13.7	Other (including invertebrates)	

Notable features (tick if present)		
14	Limestone pavement within 100 m of turlough	
15	Swallow/Sink holes	
16	Permanent/Open water	
17	Drains	
18	Discontinued hedges/walls	
19	Strandline	
20	Algal paper	✓
21	Evidence of nutrient enrichment	✓
22	Evidence of ecologically unsuitable grazing	

	Condition evaluation	Poor
	Comments on condition	The site appears to be very nutrient enriched, with large areas covered by dried-out algae. There does not appear to be any grazing within the turlough basin.
	Conservation value	Low
	Comments on conservation value	This site is of low conservation value. No rare plants were recorded. Little vegetation community diversity was observed. The site is highly nutrient enriched. Adjacent habitats are agricultural grassland and oak-ash-hazel woodland.

	Turlough number	156
	Turlough name	Dunkellin
	Recorders	JM/FON
	Field survey date	22/09/2015: Partial survey only due to access difficulties
	Is it a Turlough? (Y / N / U)	Y
	Brief description and reason for decision	Yes, this is a turlough that was flooded at the time of the survey and appears to dry out in the summer (evidence from AP). The site of the original centroid is very close to the Dunkellin River, and flooding here could be more influenced by surface water than groundwater. Therefore, the centroid was moved northeast. This turlough is close to Rahasane Turlough, the largest in Ireland, and is hydrologically closely linked to it (there is an argument for including Dunkellin with Rahasane as one site). It was not possible to survey the site fully as access gates warned against unauthorised entry and the landowner was not located during the site visit. A new Gort-Tuam PPP road scheme is being built across part of the site and the ecological report for this scheme should be accessed for further information.

	(FILLED IN ONLY IF IT IS, OR MAY BE, A TURLOUGH)	
	Part of a complex of turloughs?	
	Grid reference	145000 219050
	Approximate area ha	
	Predominant substrate	
	Predominant basin condition	
	Number of land parcels	

	Turlough number	294
	Turlough name	Carrownalecka 2
	Recorders	JM/FON
	Field survey date	Not surveyed
	Is it a Turlough? (Y / N / U)	Probably Y
	Brief description and reason for decision	This site occurs close to site 293 Carrownalecka 1, which was found to be a high-conservation-value site. Site 294 was not surveyed for logistical reasons, but it is likely to be a similar quality site to 293 and is likely to be worthy of further study, perhaps in conjunction with studies on site 293. It may even be possible to amalgamate the two sites into one if their hydrology and general ecology support this.