

County Longford

Wetlands Field Survey 2019

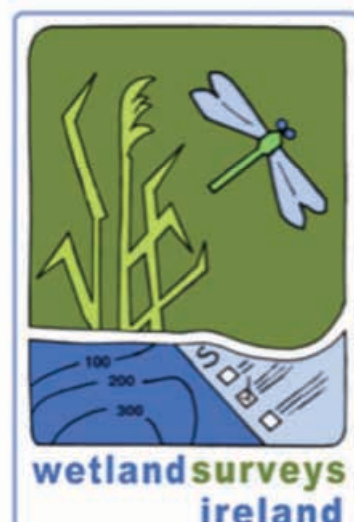
Report prepared for Longford County Council

by P. Foss, M.C. Gallagher & P. Crushell

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An Chomhairle Oidhreachta
The Heritage Council



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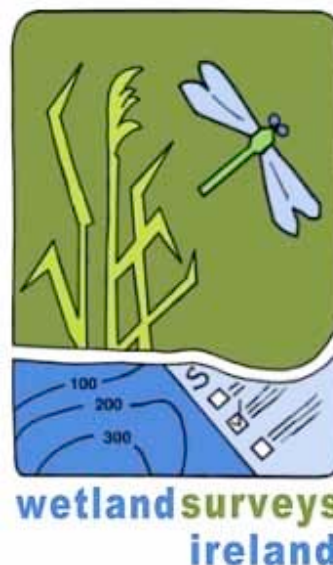
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Report cover images:

Clockwise from top LHS: Killeen Lough; Killeen Bog; Killen Pond (North) – Ballin Lough; Knockmoody Bog, Co. Longford (Photo: Peter Foss)

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County Longford Wetlands Field Survey 2019

This project involved a field survey of 18 freshwater wetlands in County Longford, with the aim of identifying the specific wetlands and ecological interest of each site. These sites had previously been identified as being of potential interest during the County Longford & Roscommon Wetland Study 2017 project. The sites selected for survey were suspected to contain notable wetland habitats. This report presents the results of the 2019 field survey and includes detailed site descriptions and habitat maps for each of the wetlands surveyed.

Acknowledgements

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The authors wish to thank Máiréad Ní Chonghaile, Heritage Officer with Longford County Council for help and advice during the project.

We also acknowledge the assistance of all those landowners who facilitated access to their land during this survey and provided valuable local information.

Executive Summary

1. The aim of the Longford Wetlands Field Survey 2019 (LFWS 2019) was to undertake a field survey of a selection of wetland sites previously identified during the 2017 Counties Longford & Roscommon Wetland Study project (Foss *et al.* 2017) for which little or no habitat or ecological information was available.
2. Eighteen sites were selected for potential survey by the Heritage Officer of Longford County Council. Sites selected for survey included those that lie outside of designated areas but were deemed likely to contain habitats of biodiversity interest.
3. Field surveys were undertaken on all 18 sites. These were surveyed in detail and site descriptions, conservation evaluation and habitat maps were prepared.
4. For the sites surveyed in detail, habitats were classified and mapped according to the Guide to Habitats published by The Heritage Council (Fossitt 2000). Habitats that occur surrounding each wetland site were also recorded.
5. Detailed survey information on sites, including the habitats and species present, as well as threats and impacts to sites, was stored within a Longford Wetland Survey (LFWS) database.
6. The information collected from the survey was used to update the 2017 Longford Wetlands Map (LFWM) GIS dataset and site database. Site records were updated for each of the sites surveyed in 2019.
7. The main findings to emerge from the 2019 survey of wetlands is that a number of important wetland sites were identified during the survey (deemed to be of county or high local importance). This included raised bog and lake / wet grassland wetland sites. The raised bog habitat is listed under the EU Habitats Directive as a habitat of conservation concern. New records of Marsh Fritillary (Annex II species under the EU Habitats Directive) were recorded during the course of the survey at two wetland sites.
8. The results of the 2019 field survey suggests that many important wetland sites may remain un-identified throughout the county and further surveys will be required to improve our knowledge of the county's wetland heritage.
9. Despite the recognised importance and value of wetlands, survey results confirm that they continue to be threatened and lost due to land-use pressures. A series of recommendations are made with regards ensuring the future conservation of the rich wetland heritage of County Longford.

1 Introduction and Background

In 2017 Longford County Council funded the production of a county Longford wetland GIS dataset and associated site database holding information on all known and potential freshwater wetlands in county Longford (Foss *et al.* 2017).

The Longford Wetlands Map (LFWM) project in 2017 identified more than 281 areas of wetlands which were mapped in a digital dataset (LFWM GIS dataset). However, habitat and ecological information was available on only a selection of these wetland areas equating to 95 individual sites. The remaining 196 sites were identified during the GIS analysis of aerial photography and other datasets, and there was no detailed background survey information available for these sites.

The main aim of the current Longford Wetlands Field Survey 2019 (LFWS 2019) project was to carry out a survey of a selection of sites identified in the LFWM project for which there was little or no site information, and assess their ecological status with the view of improving the knowledge of the wetland resource of County Longford.

This aim was achieved by undertaking the following tasks:

- Eighteen previously un-surveyed sites were selected following a review of the LFWM 2017 dataset
- Detailed field surveys were undertaken
- Following the completion of field surveys, the ecological value of each site was assessed and sites were then ranked according to ecological importance, and individual site reports were prepared
- All data recorded during the survey was stored in a site database and the Longford Wetland Map GIS dataset was updated to include the results of the survey

The outputs of the Longford Wetlands Field Survey 2019 should assist Longford County Council in its obligations to protect the most important wetlands within the county and inform future conservation policies in relation to wetlands in county Longford.

1.1 Project summary

This LFWS 2019 project was undertaken during October and November 2019. The main elements project included:

- Eighteen sites were selected from the Longford Wetlands Map (LFWM) GIS dataset for survey in 2019. Sites considered representative of the more common wetland habitats within the county were included (see Table 3.1).
- Following the site selection process, field maps of the sites were prepared.
- A Wetland Survey Database (LFWS), to hold survey information on sites examined in detail, was created. This database was linked to the original County Longford Wetlands Map (LFWM) site database where core information on wetland sites is held. Once survey information was inputted to the LFWS survey database, a complete site report was produced from data held within the two related databases.
- Field surveys of the 18 selected sites were undertaken during October 2019. Following the field survey, the ecological value of each site was assessed using an objective site evaluation scheme. Sites were subsequently ranked in terms of their local, national, or international conservation value (see Appendix 1).
- Information gathered during the field survey was used to populate the Wetland Survey Database (LFWS), prepare habitat maps, and update the Longford Wetlands Map (LFWM) GIS dataset.
- Individual site reports (which include site descriptions, habitat maps, and conservation recommendations) were prepared for each site surveyed. These site reports are included in Appendix 2 of this report.
- Digital copies of the updated Longford Wetlands Field Survey 2019 (LFWS 2019) GIS dataset and site database accompanies this report.

2 Materials & Methods

2.1 Longford Wetlands Field Survey 2019 - Site Selection

- At project commencement a total of 18 sites were selected from the Longford Wetland Map (LFWM) GIS dataset for survey. It was envisaged that these sites would be surveyed in detail, based on the time and resources allocated for the project. The final list of sites proposed for survey was considered representative of the more common wetland habitats within the county (see Table 3.1).

Sites selected for survey are listed in Table 3.1 below and a map showing their distribution throughout the county is presented in Figure 3.1.

2.2 Longford Wetlands Field Survey 2019 - Field Survey

Following on from the selection of the eighteen sites for survey from the GIS dataset, the field survey was undertaken during the period 21st to 24th October 2019. The following was recorded at each site:

- General ecological description of the site
- Photographic record of the site
- The habitats both within and immediately adjoining the wetland
- Habitat types listed under Annex I of the EU Habitats Directive
- Threats/damaging activities to the site
- Flora and fauna species observed

All site information was recorded using a standard field survey card on a GPS enabled field computer (see Foss *et al.* 2017 for details). The survey card was designed specifically for use on this survey.

Plant identification followed Webb *et al.* (1996), and species nomenclature follows Scannell & Synnott (1987). Searches for rare or protected species of plants (Curtis & McGough 1988) were not the focus of this study but where these were observed note was taken for inclusion in the database.

Mammals observed were recorded using nomenclature in Sterry (2004) and birds were identified using Ferguson-Lee *et al.* (1983). Any reptiles, amphibians or (readily identifiable) invertebrates were also noted.

Information on threats and damage on the site, and the severity of this was also noted and were marked in the GIS using target notes.

2.2.1 Consultation with Landowners

Where possible, landowners were identified by calling to the nearest dwelling, and permission was sought for access to the site. Discussions with landowners typically included an explanation of the project often followed by an informal conversation about the particular wetland site and its past and recent management.

All landowners that were approached during the survey permitted access to their lands.

2.2.2 Habitat Classification

The habitats within each wetland visited and those immediately adjacent to the site were classified using Fossitt (2000) 'A Guide to Habitats in Ireland'. The habitat definitions and terminology used in this report follows this guide.

Guidance in determining whether or not a habitat type present within a wetland may correspond to an EU Annex I type was sought from a variety of sources including European Commission (2013), Fossitt (2000), Foss (2007), O'Neill *et al.* (2013), Perrin *et al.* (2013), and Corbett (2004).

2.2.3 Site Conservation Assessment & Evaluation

Each wetland surveyed in the field was assigned an evaluation rating. This evaluation was based on the criteria outlined in Appendix 1 (NRA 2009).

2.2.4 Survey Constraints

The presence of bulls, security fencing, high barbed wire fencing, high water levels, and wide deep drainage ditches hindered field work by preventing safe access to parts of some of the sites. Such areas were assessed using binoculars. Areas that were inaccessible were marked in the GIS using target notes.

The main purpose of the project is to create an inventory of wetlands within the county. In order to assess sites within the time and budgetary constraints of the project, surveys were normally confined to only those parts of the sites that appeared, from the aerial photography, to be of most interest. The level of information gathered at each site was sufficient to evaluate its ecological importance and wetland interest.

Due to the late date of the survey in October, the list of plant and invertebrate species recorded on sites should be considered to be a minimum, and the species list recorded is likely to be incomplete for early or summer flowering species, and faunal species.

2.3 Longford Wetlands Field Survey Database – Structure and Content

A Longford Wetland Survey (LFWS) database holds survey data on sites from the present survey. This database was connected to the existing County Longford Wetland Map site database (which holds general and descriptive site data recorded in various third party reports and datasets) via the unique site code assigned to each site. This database was created using Filemaker Pro software package which allows data export to Excel spreadsheets.

Fields used to store survey data in the LFWS database are detailed in Foss *et al.* (2017).

Initially the sites selected for survey had a site record created in the LFWS database. This updated version of the LFWS database (with the sites surveyed in 2019 added) was given the name Longford Wetland Map Version 2, and is included with this report as part of the final project deliverables.

2.4 Longford Wetlands Field Survey (LFWS) – GIS Dataset

The Longford Wetland Map (LFWM) GIS dataset created by Foss *et al.* (2017) (using ArcView 10.6 GIS software package on a Windows Operating System) was used throughout the LFWS 2019 for all site selection and mapping purposes.

See Foss *et al.* (2017) for further details on the structure and format of this LFWM GIS dataset.

All habitat maps produced during the LFWS 2019 project were added to this LFWM GIS dataset. In certain cases boundaries were also adjusted on sites based on field observations. The updated and revised version of the LFWM GIS dataset was delivered at the end of the project to Longford County Council, dated November 2019. A set of GIS files relevant only to this individual survey (LFWS 2019) are also included with this report.

3 Results

3.1 Longford Wetlands Field Survey 2019

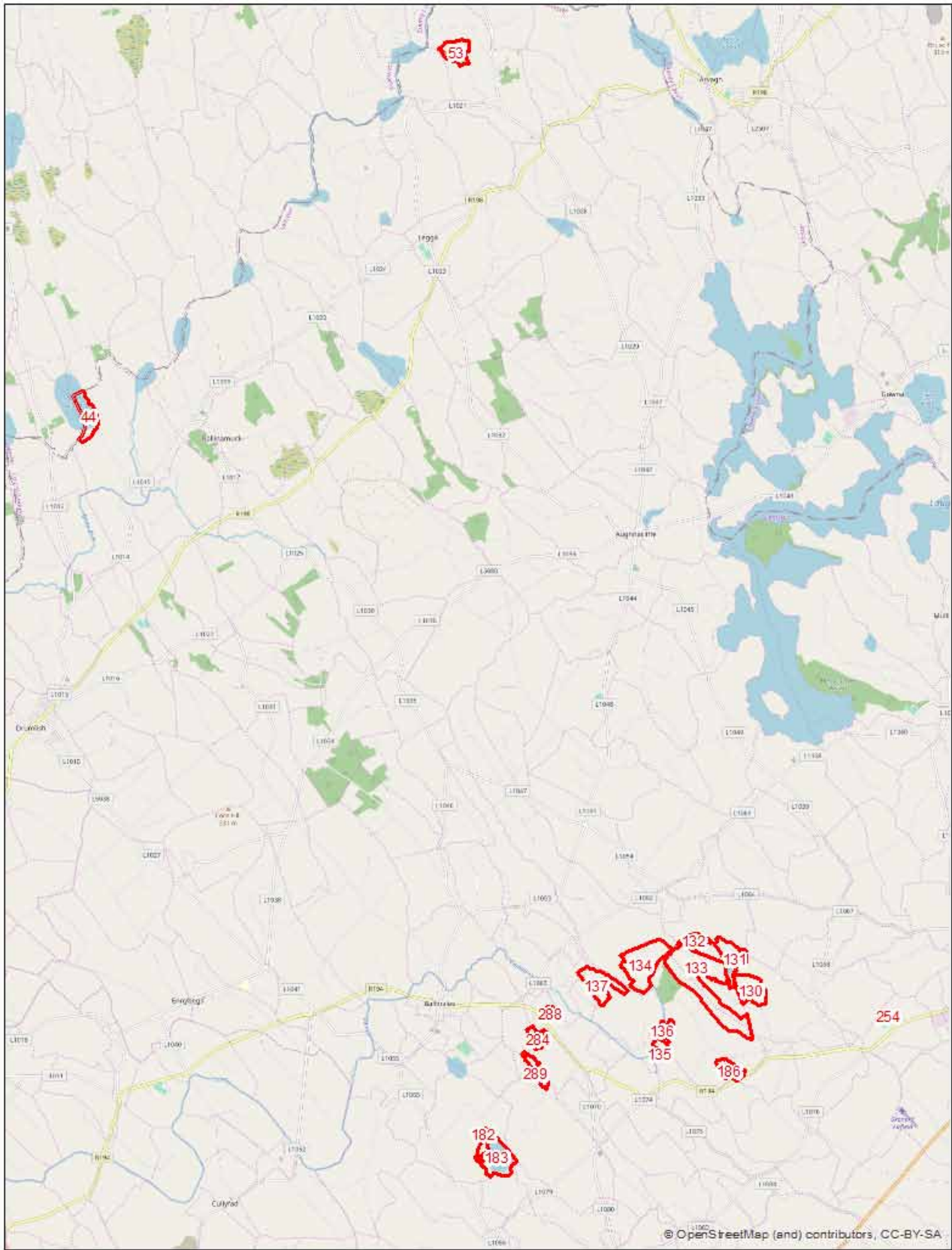
The eighteen sites visited during the field survey are listed in see Table 3.1 and their locations shown in Figure 3.1.


Section 3.2 below presents the summary findings of the survey in relation to the habitats recorded on each site. In addition, the ecological evaluation of sites is discussed.

A detailed report of each site (sorted according to site name) together with habitat maps are presented in this report (see Appendix 2).

Table 3.1: List of sites surveyed during the Longford Wetlands Field Survey 2019.

LFWS Site Code	Site Name	Centre Northing (IG)	Centre Easting (IG)
LF44	LOUGH SALLAGH (LONGFORD)	291248	216297
LF53	BLACK LOUGH	297809	222908
LF130	KILLEEN PONDS	280932	228082
LF131	KILLEEN LOUGH	281503	227833
LF132	BALLIN LOUGH	281887	227132
LF133	KILLEEN BOG	280982	227208
LF134	AGHAGREAGH BOG	281537	226269
LF135	CLONBRONEY BOG WOODLAND	279982	226505
LF136	CLOONFIN LOUGH	280222	226581
LF137	KNOCKMOODY BOG	281139	225372
LF182	CURRYGRANE WET WOODLAND	278150	223380
LF183	CURRYGRANE LOUGH	278005	223645
LF186	CLOONFIN SOUTH	279526	227799
LF254	BALLYBRIEN WETLAND	280490	230638
LF283	KILLEEN POND (NORTH) – BALLIN LOUGH	281745	227138
LF284	LISTRAGHEE LOUGH	280084	224340
LF288	BALLYREAGHAN QUARRY POND	280641	224544
LF289	DRUMMEEL FARM POND NORTH	279415	224369



 Site boundaries

0 0.75 1.5 3 Kilometers



Figure 3.1: Location of sites selected for survey as part of the Longford Wetlands Field Survey 2019.

3.2 Wetland types recorded during LFWS Field Survey 2019

Eighteen sites were surveyed in detail as part of the LFWS 2019. The habitats present (both wetland and non-wetland) within and surrounding each wetland site were recorded using Fossitt (2000) based on field survey observations. Summary descriptions of these wetland types, with examples of where they can be seen in County Longford is provided in Foss *et al.* (2017), while more detailed habitat descriptions with characteristic species is given in Fossitt (2000).

Wetland habitats recorded during the survey included a wide range of habitats of varying ecological importance. The most notable habitats that were encountered included; raised bog, mesotrophic lake, wet woodland, and wet grassland.

Wetlands of lower ecological interest that were recorded during the survey included reclaimed cutover bog, agricultural grassland areas, and wet grassland. A summary description of each site surveyed is presented in Table 3.2 below. Further site details are presented in detailed site reports are presented in Appendix 2.

Table 3.2: Summary description of sites surveyed during the Longford Wetlands Field Survey 2019.

LFWS Site Code	LFWS Site Name	Wetland Areas on Site	Survey site location	Site Description
LF44	LOUGH SALLAGH (LONGFORD)	YES	Lough Sallagh is located 2.3km west of the village of Creelaghta, Co. Longford. The lake straddles the border with County Leitrim. Approximately two-thirds of the lake is located in Co. Leitrim.	Lake with fringing reed swamp habitat grading into wet willow and alder woodland, flooded during time of survey. Woodland dominates on the western side of the lake (County Leitrim) and along the southern shore (County Longford). The eastern side of the lake (mostly in County Longford) has a GS2 community between the public road and the lake, with some ornamental tree planting. There are a number of access points for fishing and boating on the eastern lake shore. Agricultural fields slope down towards the lake on the east.
LF53	BLACK LOUGH	YES	Black Lough is located 2.2km north west of the village of Moyne, in the north of County Longford.	The southern part of the site is bounded by a wide zone of wet willow birch woodland which was extensively flooded during survey. At the end of the lane to the woodland, local dumping and invasive Japanese Knotweed was observed. The woodland area shows evidence of farm runoff. The northern part of site comprises extensive <i>Phragmites</i> dominated reed swamp with a central river channel. The woodland in the valley adjacent to the reed swamp is willow dominated. Birch woodland is confined to higher ground sloping down to the reed swamp in the south. On the eastern side FS1 grades into GS4 with regular drainage ditches, and is used for rough cattle grazing.
LF130	KILLEEN PONDS	YES	This site forms part of the Killeen Lough Wetland Complex. The ponds are located 5.4km east of Ballinalee, just east of Killeen Bog, Co. Longford.	Series of artificial ponds in highly managed agricultural grassland (GA1). Access not possible due to locked gate and stock presence. One pond near the road was visible from the public road and has become infilled with <i>Juncus</i> vegetation.

LFWS Site Code	LFWS Site Name	Wetland Areas on Site	Survey site location	Site Description
LF131	KILLEEN LOUGH	YES	This site forms part of the Killeen Lough Wetland Complex. The lough is located 5.2km east of Ballinalee, on the eastern edge of Killeen Bog, Co. Longford.	Large lake with fringing reed swamp habitat. <i>Phragmites</i> is the dominant species. On the northern side of the lake the land is cattle grazed, and where the land levels out at the lake edge a wet grassland community occurs. The south west side of the lake is adjoined by mature conifer plantation (spruce). The lake is hydrologically connected to site LF132, Ballin Lough.
LF132	BALLIN LOUGH	YES	This site forms part of the Killeen Lough Wetland Complex. The lough is located 4.6km east north east of Ballinalee, at the northern end of Killeen Bog, Co. Longford.	Large lake surrounded by fringing reed swamp dominated by <i>Phragmites</i> . Wet grassland and willow scrub communities occur on the southern boundary. On the northern side of lake, the land rises beyond the reed swamp and is GA1 used to graze cattle. Marsh Fritillary was recorded on this site.
LF133	KILLEEN BOG	YES	This site forms part of the Killeen Lough Wetland Complex. The cutover and raised bog site is located 4.5km east of Ballinalee, Co. Longford.	An extensive site composed of a mosaic of cutover bog, degraded high bog, non annex bog woodland and scrub communities, with a number of turbary tracks bisecting the site. Recent mechanical peat harvesting was noted at southern and northern ends of the site. Some cutover areas showing bog community regeneration were present in wetter areas. The remaining high bog is degraded with only marginal vegetation present. No active raised bog communities were observed. A large central drain (townland boundary) runs through the centre of the high bog. Marsh Fritillary was recorded on this site.
LF134	AGHAGREAGH BOG	YES	This site forms part of the Killeen Lough Wetland Complex. The cutover bog area is located 3.7km east north east of Ballinalee, Co. Longford.	Relatively flat area of mostly cutover bog dominated in large part by <i>Molinia</i> . A small uncut area of high bog dominated by <i>Calluna</i> occurs in the western part of site. Intact high bog areas were recently burnt (last 3 years). Peat cutting from the current year was observed. Scrub is present on the edges of turbary tracks and surrounding edge of cutover area. Scattered small stands of birch occur throughout the cutover area.
LF135	CLONBRONEY BOG WOODLAND	YES	This site forms part of the Killeen Lough Wetland Complex. This wet woodland area is located 3.9km east of Ballinalee, just south of Cloonfin Lough, Co. Longford.	This woodland was previously surveyed as part of NSNW and described as WN7 on cutover bog. Full site description is available in the main site database. During the current survey the woodland was viewed from the western edge and additional species were recorded. There were no obvious sign of invasives. Some mature conifers occur at the western edge of the site.
LF136	CLOONFIN LOUGH	YES	This site forms part of the Killeen Lough Wetland Complex. The small lough is located 3.9km east of Ballinalee, Co. Longford.	Large area of reed swamp adjoining the Camlin River. Dominated by <i>Phragmites</i> which surrounds an open area of water. It was not possible to access the open water area as the reed swamp was flooded during the time of survey. The reed swamp grades into an area increasingly dominated by <i>Filipendula</i> and coarse wetland grassland. The wet grassland area in south has recently been planted with spruce with edge planting of alder. Scattered small willow scrub areas occur within the reed swamp.

LFWS Site Code	LFWS Site Name	Wetland Areas on Site	Survey site location	Site Description
LF137	KNOCKMOODY BOG	YES	This site forms part of the Killeen Lough Wetland Complex. The cutover bog site is located 2.7km east north east of Ballinalee, Co. Longford.	Area of cutover bog with raised drier banks and wetter hollows. Scattered birch and pine trees grow throughout the site with a few clumps of <i>Rhododendron</i> , attaining 2m in height. Hand cut in the past. Wetter hollows contain small patches of <i>Sphagnum</i> dominated bog communities. The cutover bog is surrounded by scrub which grades into non annex bog birch woodland. No evidence of recent peat cutting on site.
LF182	CURRYGRANE WET WOODLAND	YES	This wet woodland area is located 2.8km south south east of Ballinalee, and occurs around the north western edge of Currygrane Lough, Co. Longford.	This woodland was previously surveyed as part of NSNW and listed as WN6. Full site description is available in the main database. During the current survey the woodland was viewed from the eastern lake edge and some additional species were recorded. There was no obvious sign of invasives near the lakeshore. The woodland continues beyond NSNW site boundary along the lake edge to the south.
LF183	CURRYGRANE LOUGH	YES	Currygrane Lough is located 2.8km south south east of Ballinalee, Co. Longford.	The lake is surrounded by reed swamp with the exception of a section of the shoreline in the north eastern part of the lake. This area adjoins the car park beside the fishing lodge. The bank has been reinforced with rock armature for fishing. Fringing reed swamp and wet woodland is present which is composed of alder, willow and birch and occurs around the western and southern shore. The lake is utilised by a number of aquatic birds. Fishing lake.
LF186	CLOONFIN SOUTH	YES	This site forms part of the Killeen Lough Wetland Complex. The small bog site is located 5.2km south east of Ballinalee, at the southern end of Killeen Bog, Co. Longford.	Small cutover bog in landscape depression, which has not been cut in the recent past and shows regeneration of heather and <i>Molina</i> dominated communities with stands of birch and some dense bracken. Surrounded by scrub, non annex birch woodland and dense bracken especially in the east. Occasional wet depressions occur throughout site, as do some raised peat hags.
LF254	BALLYBRIEN WETLAND	YES	This wet area is located 2.6km west of Granard in Co. Longford.	Low lying semi-improved wet grassland field periodically grazed by cattle. Bounded by drainage ditches. Surrounding fields are used for silage production and more intensive cattle grazing. Site viewed from a distance.
LF283	KILLEEN POND (NORTH) - BALLIN LOUGH	YES	This site forms part of the Killeen Lough Wetland Complex. The small pond is located 5.4km east of Ballinalee, to the east of Killeen Bog, and south of Ballin Lough, Co. Longford.	Small lake with dystrophic characteristics, which is connected to Ballin Lough via a 3m open water channel. The lake is surrounded by narrow fringe of <i>Typha/Phragmites</i> or willow scrub immediately adjacent to the open water. The lake used as a fishing resource.
LF284	LISTRAGHEE LOUGH	YES	This site forms part of the Killeen Lough Wetland Complex. The small pond and cutover bog area is located 1.8km south east of Ballinalee, Co. Longford.	Small lake in a landscape depression, surrounded by old cutover bog with <i>Molinia</i> grassland, birch woodland areas and marginal treelines with ash, birch, and spruce. There is a narrow zone of wet grassland adjacent to the birch woodland in the east which is grazed by cattle. The land rises sharply to the east.

LFWS Site Code	LFWS Site Name	Wetland Areas on Site	Survey site location	Site Description
LF288	BALLYREAGHAN QUARRY POND	YES	This site forms part of the Killeen Lough Wetland Complex. The quarry pond is located 2km east of Ballinalee, Co. Longford.	Artificial quarry pond in abandoned quarry with steep rock face on eastern side and gently sloping gravel area to the south and west. No wetland vegetation occurs within the pond. The quarry area consists of recolonising bare ground and a gravel surface, with pioneer communities and scattered scrub present.
LF289	DRUMMEEL FARM POND NORTH	YES	This site forms part of the Killeen Lough Wetland Complex. This farm pond is located 2km south east of Ballinalee, Co. Longford.	There is limited wetland value at this site. A stone cutting company has an artificial pond adjacent to out buildings. The land to east and west is dominated by species poor <i>Juncus effusus</i> wet grassland in a narrow valley bordered by a ridge with scrub and small area of ash hazel woodland. The fields are grazed by cattle.

3.3 Floral Observations

Floral observations and records made on the sites surveyed are included in the LFWS database. Plant species lists for each site surveyed are included in the site reports presented in Appendix 2.

The following records of problematic invasive alien species are of note:

Rhododendron (*Rhododendron ponticum*) – invasive species. Found at KILLEEN BOG; KNOCKMOODY BOG and CURRYGRANE WET WOODLAND. Recommendations are made in the site reports to eradicate this invasive non native species.

Japanese Knotweed (*Fallopia japonica*) – invasive species. Found at BLACK LOUGH. Recommendations are made in the site report to eradicate this invasive non native species.

Himalayan Balsam (*Impatiens glandulifera*) – invasive species. Found at KNOCKMOODY BOG. Recommendations are made in the site report to eradicate this invasive non native species.

3.4 Faunal Observations



Plate 1: Marsh Fritillary larval web from cutover bog area at Killeen Bog, Co. Longford.

Fauna associated with wetland habitats that were observed during the field survey are recorded in the LFWS 2019 database. Species recorded on the sites surveyed are included in the site reports presented in Appendix 2.

Larval webs of the EU Habitats Directive Annex II species Marsh Fritillary (*Euphydryas aurinia*) were recorded at two adjacent sites (KILLEEN BOG and BALLIN LOUGH) during the 2019 survey, both of which occur in 10km grid square N28. This species has previously been recorded from 6 locations (2km grid squares) and one 10km grid square (N26) within County Longford (see Figure 3.2), making the species records from the 2019 survey of importance. The occurrence of the species in 10km grid square N28, represents a significant extension of the range of the butterfly in the northern part of County Longford.

Survey time limitations did not allow for a detailed survey of the distribution and abundance of Marsh Fritillary larval webs within the two sites where it was recorded, although extensive areas of suitable habitat were noted. Additional surveys of this species are recommended at a more suitable time of the year (ideally September), and should future surveys identify significant resident or regularly occurring populations, then the conservation ranking of these sites may need to be reviewed.

Marsh Fritillary data records for the two sites have been submitted to the National Biodiversity Data Centre.

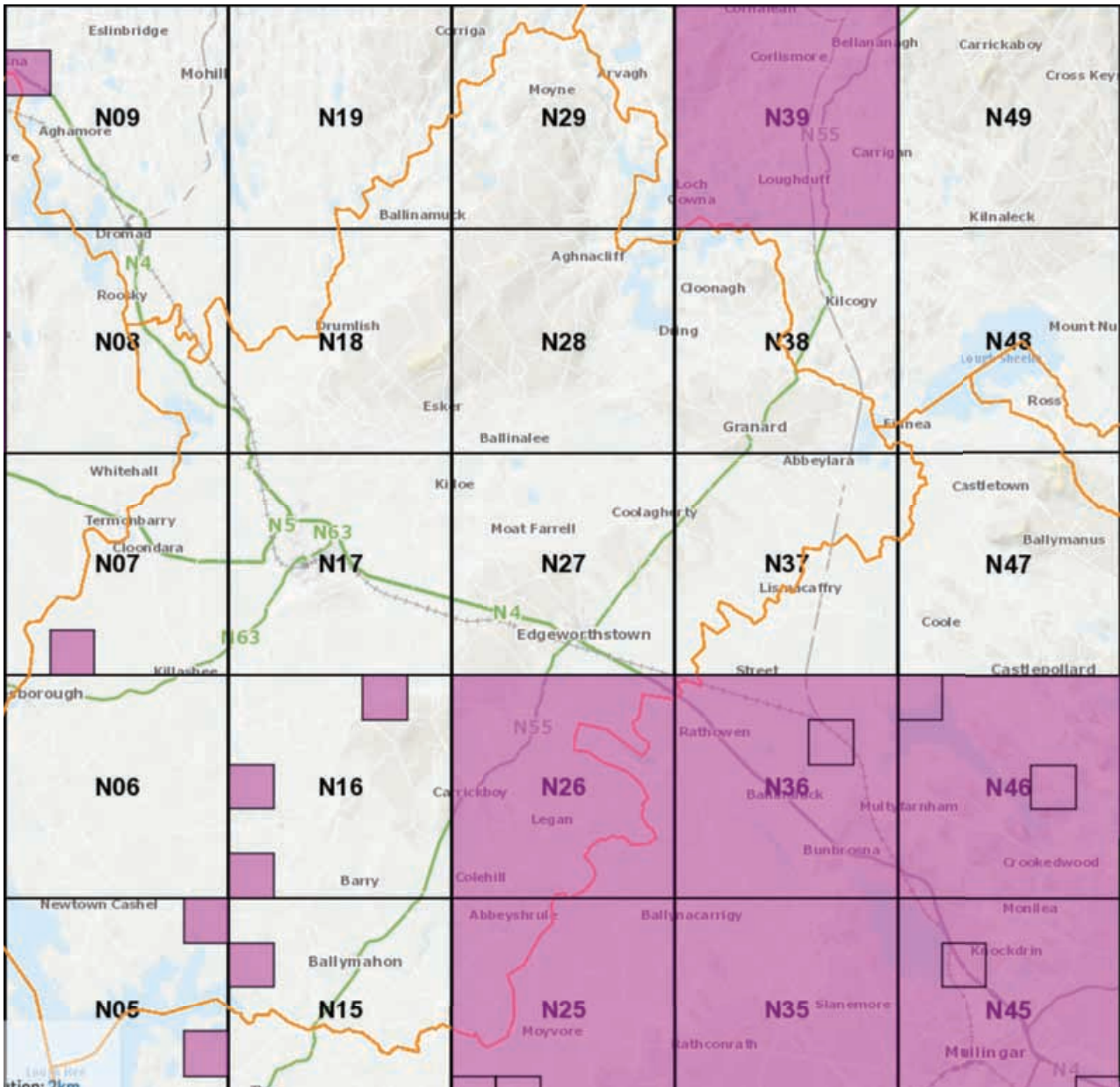


Figure 3.2: Distribution of Marsh Fritillary records in County Longford (Source: NBDC October 2019).

The following records of problematic invasive alien species are of note:

Zebra Mussel (*Dreissena polymorpha*) – invasive species. Shells found on the shore at CURRYGRANE LOUGH. Recommendations are made in the site report to eradicate this invasive non native species.

3.5 Site Conservation Assessment

On completion of the LFWS 2019 field survey, each of the 18 sites were reviewed and given a site conservation rating using the criteria presented in Appendix 1 (from NRA 2009). The site conservation rating for sites surveyed during 2019 is presented in Table 4.3 below.

Of the 18 sites surveyed in 2019, two sites (KILLEEN BOG and BALLIN LOUGH) were given a County conservation ranking (C+) due to the extent and occurrence of a diverse range of natural habitats within the sites and the occurrence of the Annex II EU Habitats Directive butterfly species, Marsh Fritillary (see Table 3.3).

Five sites were ranked as being of local high local conservation value (C). The remaining sites surveyed during the LFWS 2019 had a lower local conservation ranking.

Table 3.3: Conservation evaluation of sites surveyed in detail in County Longford during the LFWS 2019, ranked according to conservation importance.

LFWS Site Code	Site Name	Site Wetland Conservation Ranking
LF132	BALLIN LOUGH	C+ Rating: County conservation value
LF133	KILLEEN BOG	C+ Rating: County conservation value
LF44	LOUGH SALLAGH (LONGFORD)	C Rating: Local conservation value (high value)
LF53	BLACK LOUGH	C Rating: Local conservation value (high value)
LF131	KILLEEN LOUGH	C Rating: Local conservation value (high value)
LF183	CURRYGRANE LOUGH	C Rating: Local conservation value (high value)
LF283	KILLEEN POND (NORTH) - BALLIN LOUGH	C Rating: Local conservation value (high value)
LF134	AGHAGREAGH BOG	D Rating: Local conservation value (moderate value)
LF135	CLONBRONEY BOG WOODLAND	D Rating: Local conservation value (moderate value)
LF136	CLOONFIN LOUGH	D Rating: Local conservation value (moderate value)
LF137	KNOCKMOODY BOG	D Rating: Local conservation value (moderate value)
LF182	CURRYGRANE WET WOODLAND	D Rating: Local conservation value (moderate value)
LF186	CLOONFIN SOUTH	D Rating: Local conservation value (moderate value)
LF284	LISTRAGHEE LOUGH	D Rating: Local conservation value (moderate value)
LF130	KILLEEN PONDS	E Rating: Local conservation value (low value)
LF254	BALLYBRIEN WETLAND	E Rating: Local conservation value (low value)
LF288	BALLYREAGHAN QUARRY POND	E Rating: Local conservation value (low value)
LF289	DRUMMEEL FARM POND NORTH	E Rating: Local conservation value (low value)

3.6 Threats and Damage to County Longford Wetlands

The majority of, if not all, Irish wetland sites, and by extension those in county Longford, have been subject to some degree of human impact, damage or modification from their natural state in the past, and continue to be threatened and decline in extent due to ongoing human activities (NPWS 2019; Foss & Crushell 2007; Foss 2007). A summary table of impacts and the wetland types most affected is presented in Table 3.4 below.

Wetlands, (bog, fen and marsh areas in particular) have historically been regarded as less productive than adjacent agricultural land and measures have been taken to 'improve' their value for agriculture. The principal method of land improvement usually involved some one or more of the following; drainage, infill or soil redistribution, burning, and addition of nutrients. These activities were undertaken so as to facilitate

either the removal of peat, the planting of trees, or the creation of new grazing areas, pasture or arable farmland.

Historical evidence indicates that peatlands or bogs, and by extension fens and other associated wetlands, were increasingly utilised by the growing population throughout Ireland. The removal of peat by this growing population resulted in many worked out bogs, which when abandoned became ideal locations for the formation of secondary wetland habitats (fen, marsh and wet woodland *inter alia*).

A more recent trend has been the use of wetlands as areas to dispose of building rubble, rubbish, and landfill materials (Foss & Crushell 2007; Monaghan County Council 2006).

Reclamation and drainage works are ongoing agricultural management techniques which affect the hydrology of wetland habitats.

The 2019 NPWS report on the conservation status of EU Habitat Directive sites in Ireland (NPWS 2019), many of which are wetlands, found that the conservation status of these habitats is far from satisfactory. In fact the overall assessment for wetland habitat types listed under the EU Habitats Directive found that only a single habitat was in favourable conservation status, while twelve were 'unfavourable - inadequate' and thirteen habitat types were deemed to have a 'unfavourable – bad' conservation status overall. The trend for a number of habitats also suggests that their conservation status is in decline during the period 2013-2019.

Included in the latter bad conservation status category were habitats such as; Oligotrophic and Hard water lakes, Raised bog (active and degraded), Blanket bogs, Wet heath, Transition mires, Alkaline fens, Tall herb swamps, and Alluvial wet woodland. These habitats account for a significant part of the wetland habitat resource in county Longford.

Table 3.4: Natura 2000 Impacts and Activities which are likely to have a negative effect on wetlands, and the wetland type most likely to be affected by these activities.

Natura 2000 Impacts and Activities Main Code	Impacts and Activities Category with brief description	Wetland habitat types most at threat or likely to be affected from Impacts and Activities
A	Agriculture <i>Including cultivation, fertilization abandonment, and over grazing</i>	Fens, Marsh, Raised bog, Wet heath, Reed swamp, Lake and Lake margins, Wet grassland, Wet woodland, Bog woodland, Rivers
B	Sylviculture, forestry <i>Including fertilisation, planting and re-planting, forestry practices</i>	Fens, Marsh, Raised bog, Wet heath, Reed swamp, Lake and Lake margins, Wet grassland, Wet woodland, Bog woodland, Turlough, Rivers
C	Mining, extraction of materials and energy production <i>Including quarry activities, turbary and peat removal</i>	Raised bog, Dystrophic lake, Bog woodland
D	Transportation and service corridors <i>Including road construction, power transmission</i>	All wetland types
E	Urbanisation, residential and commercial development <i>Including Urban and industrial development, discharges and waste disposal</i>	Fen, Bog, Marsh, Wet Grassland, Scrub
F	Biological resource use other than agriculture & forestry <i>Including leisure fishing, hunting</i>	Lake, Fen, Marsh, River, Bog
G	Human intrusions and disturbances <i>Including recreational facilities, outdoor leisure activities, littering, trampling overuse</i>	Bog, Fen, Marsh, Reed Swamp, Wet Grassland
H	Pollution <i>Including surface and groundwater water pollution, air pollution</i>	Oligotrophic Lake, River, Marsh, Fen

Natura 2000 Impacts and Activities Main Code	Impacts and Activities Category with brief description	Wetland habitat types most at threat or likely to be affected from Impacts and Activities
I	Invasive, other problematic species and genes <i>Including invasive species, genetic pollution</i>	Oligotrophic Lake, River, Marsh, Fen
J	Natural System modifications <i>Including landfill, drainage, drain maintenance, water abstraction, burning</i>	Fen, Marsh, Bog, Reed Swamp, Lake margins, Wet grassland, River
K	Natural biotic and abiotic processes (without catastrophes) <i>Including organic material accumulation</i>	Fen, Marsh, Bog, Wet woodland

During the course of the LFWS 2019, different types of damage to wetlands were noted, and an overall assessment of the severity was undertaken where information was available. This was undertaken on all sites surveyed as part of the study. The scale for the severity of damage used was: Not serious; Serious; Very Serious, and Unknown.

The individual site reports presented in Appendix 2 describe all specific threats or damage and the severity of this on each of the wetland sites surveyed. In many cases more than one damaging activity / threat was recorded on an individual site.

In summary the main activities that are impacting on the conservation interest of wetlands in County Longford include; drainage, peat extraction (historic and modern), diffuse water pollution, dumping, invasive non-native species and forest planting of open ground.

It is likely that the information recorded on site activities, impacts, and damage represents a minimum, and that additional sites have been negatively affected by human operations which have not been documented in the LFWS database. The LFWS site database does, however, provide a tool for recording such damage on sites in the future, and provides an indication of the types of activities which have affected wetland habitats to date.

4 Conclusions and Recommendations

4.1 *Distribution and Extent of the Longford Wetland Resource*

The results of the LFWS 2019 shows that the main GIS layer which was developed for the identification of potential wetlands in Longford (Longford & Roscommon Wetland Study, Foss *et al.* 2017) is a useful tool in identifying wetlands of ecological importance in the county.

Of the 18 sites surveyed during 2019 that had been identified in the LFWS project 2017 (Foss *et al.* 2017), most supported wetland habitats of conservation significance.

There is a commitment in the recently published Climate Action Plan (Government of Ireland 2019) to 'upgrade habitat mapping systems to establish the baseline condition of wetlands'. This project is a small step towards furthering that national commitment. It is recommended that further inventory work is required throughout the country to adequately address the deficit in baseline data on the extent and condition of wetland habitats.

4.2 *Site Designations*

It is recommended that all wetland sites which have been identified in this survey, and rated as C+ (of county importance) are forwarded to the National Parks and Wildlife Service (NPWS) for inclusion on their list of sites for survey and possible designation.

4.3 *Planning Controls*

Sites which are listed as being of county importance (C+), high local importance (C) and of moderate local importance (D) should be highlighted and included in any recommendations made under the County Biodiversity Action Plan or included in local area plans, county development plans or other planning strategies. Again, such recommendations for recognition and listing of sites should be made on a regular basis as further information on the wetland resource of county Longford becomes known.

It is recommended that council planners consult with the GIS layers, which indicate potential wetlands in county Longford, where a development could adversely affect a wetland – through water abstraction, infilling, drainage, etc.

In the event that an application is made that could potentially impact on these sites, a site visit should be conducted by a suitably qualified ecologist to determine the importance and sensitivity of the area.

It is recommended that council staff should be aware of a variety of issues regarding wetlands when assessing development proposals and planning applications. These include:

- The need for an appropriate buffer zone surrounding wetland sites
- The importance of hydrology in how wetland sites function and how indirect impacts on a wetland system can be caused by activities occurring at some distance from the wetland
- The cumulative effect of seemingly isolated losses of wetland habitats across the county
- The loss of wetland habitats as a result of fragmentation of sites and impacts on wetland hydrology
- The ecological value of wetland habitats adjacent to, and fringing lakes and ponds
- The ecological value of large areas of reed and tall sedge swamps, rivers and river flood plains in controlling and reducing the impacts of flooding events
- The wetland fauna, some of which are listed on Annex II of the Habitats Directive found in the county wetlands and the potential impacts on these species as well as their habitats

- The limited coverage provided in the initial NPWS NHA survey – this was never a comprehensive survey of the entire county – many sites of high nature conservation value remain undesignated
- The potential value of wetland sites which are outside statutory designated areas and the need for adoption of a precautionary approach when assessing applications that may impact on same.

4.4 Ongoing Maintenance of the County Longford Wetland Map Site Database

It is probable that additional third party survey information on wetland sites listed in the County Longford Wetland site database exists.

It is recommended that this site data is compiled within the database and that it is kept up to date where possible by collating data from additional surveys, EIS documents, etc. This work needs to be done concurrently with ongoing maintenance of the County Longford Wetland Survey GIS dataset and following the naming procedure described in Foss *et al.* 2017.

4.5 Ongoing Maintenance of the County Longford Wetland Map GIS Dataset

Coupled with ongoing updates of the County Longford Wetland survey and site database (Foss *et al.* 2017) it is recommended that the GIS layers are also regularly updated as new information becomes available.

4.6 Hydrological Assessment of Wetland Sites

A hydrological assessment of all sites which have been given a rating of C+ should be commissioned in order to assist in our understanding of the hydrological functioning of these wetlands.

4.7 Management and Restoration of Wetland Sites

Agricultural activities have the potential to adversely affect wetland habitats. Drainage, land reclamation, and enrichment from fertilizer application are among the agricultural activities that were recorded as damaging the integrity of wetland sites in County Longford during the current study. It is important that, through appropriate agri-environmental schemes, land management practices in the vicinity of wetland sites recognise the value and sensitivity of wetland ecosystems.

The importance of wetlands in the sequestration of Carbon is increasingly recognised. The national Climate Action Plan (Government of Ireland 2019) calls for improved management of peatlands (and other wetlands) and soils. Measures and incentives to re-wet and restore wetland habitats in County Longford should be explored. Payment for Results Agric-environmental Schemes such as the successful Burren Programme and other projects (Pearl Mussel Programme, Hen Harrier Project, and RBAPS) provide a good template which could be adapted to targeting improved management of wetland habitats within an agricultural landscape.

4.8 Control of invasive species in wetland sites

It is important that the establishment and spread of invasive species within wetland sites is controlled as they have the potential to adversely affect the biodiversity interest of wetlands, cause serious nuisance and can be very costly and difficult to remove once they become established.

Typical species affecting wetlands include Rhododendron (*Rhododendron ponticum*), Japanese Knotweed (*Fallopia japonica*), Himalayan Balsam (*Impatiens glandulifera*), Fringed Water Lily (*Nymphoides peltata*), and Parrot's Feather (*Myriophyllum aquaticum*). It is recommended that all records of invasive species in County Longford are submitted to the Invasive Species Ireland database (<http://www.invasivespeciesireland.com/sighting/>) where advice on control and removal of species is available.

4.9 Local Authority Wetlands Policy

A review of the statutory provisions that govern the management of wetlands in County Longford (such as the Habitats Directive, Wildlife Act, Water Framework Directive, Environmental Liability Directive, Nitrates

Directive, Planning Act, etc.) should be conducted and the role of the Local Authority in this regard should be examined. This review could be done in collaboration with other Local Authorities.

Increased co-ordination between agencies in their policy and operative approaches to wetlands need to be strengthened.

4.10 Water Framework Directive

As a member of the European Union, Ireland must, as of the 22nd December 2000 implement the Water Framework Directive (2000/60/EC). This directive provides a consolidated, strengthened framework for the protection and improvement of all of our waters - rivers, lakes, marine and ground waters, and of our water-dependent habitats and species. The aim of the Water Framework Directive is to prevent any deterioration in the existing status of our waters, including the protection of good and high status where it exists, and to ensure that all waters are restored to at least good status by 2015.

The objectives of the WFD are:

- to protect and enhance the status of aquatic ecosystems (and terrestrial ecosystems and wetlands directly dependent on aquatic ecosystems)
- to promote sustainable water use based on long-term protection of available water resources
- to provide for sufficient supply of good quality surface water and groundwater as needed for sustainable, balanced and equitable water use
- to provide for enhanced protection and improvement of the aquatic environment by reducing / phasing out of discharges, emissions etc.
- to contribute to mitigating the effects of floods and droughts
- to protect territorial and marine waters
- to establish a register of 'protected areas' e.g. areas designated for protection of habitats or species

Clearly the identification of wetland habitats in County Longford assists in fulfilling not only obligations under the EU Habitats Directive and the National Biodiversity Plan (Department of Culture, Heritage and the Gaeltacht 2017) but also in implementing the Water Framework Directive.

4.11 Public Information and Interpretation

Public awareness about the importance of the county wetlands could be developed through a series of targeted measures. These could include:

- Specific events county-wide as part of 'biodiversity week' or 'heritage week' which take place annually. Similarly, World Wetlands Day provides an opportunity to hold public events relating to wetlands (further details are available from http://www.ramsar.org/wwd/wwd_index.htm)
- A series of school visits celebrating local wetlands – co-ordinated through the Heritage in Schools Scheme
- Public display boards and signage at popular wetland sites
- A workshop on wetland management for landowners and farmers

4.12 Invertebrates associated with Wetlands

A number of sites examined in 2019 have been identified (see site reports in Appendix 2) which may contain important invertebrate assemblages. Surveys of these groups could be undertaken within the county to increase knowledge of the biodiversity value of these wetlands (e.g. Dragonfly & Damselfly survey; Water Beetle survey, Marsh Fritillary survey). Should field surveys be scheduled for August – October inclusive the presence of breeding Marsh Fritillary butterfly within sites can be confirmed.

5 Bibliography

The bibliography list is presented in alphabetical order by author. Code number appearing on the LHS is the reference/report code number in the LFWS Bibliography Database.

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Appendices

In the report appendices which follow, the PDF layouts (produced from Excel or Word files) have been formatted and reduced to allow printing of tables at A4 page size. The original Excel spreadsheets from which some of these PDF's were created are included on the CD Rom accompanying this report.

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Appendix 2. Individual site survey reports from the Longford Wetlands Field Survey 2019.	xx

Appendix 1: Site Evaluation Criteria

Modified from National Roads Authority (2009). Guidelines for Assessment of Ecological Impacts of National Roads Schemes.

Rating	Importance of Ecological Sites
A	<p>Internationally important Sites designated (or qualifying for designation) as SAC* or SPA* under the EU Habitats or Birds Directives. Undesignated sites containing good examples of Annex I <u>priority</u> habitats under the EU Habitats Directive. Sites designated (or qualifying for designation) as SAC* for salmonids or Annex II species under the EU Habitats Directives. Major salmon river fisheries. Major salmonid (salmon, trout or char) lake fisheries.</p>
B	<p>Nationally important</p> <ul style="list-style-type: none"> • Sites or waters designated or proposed as an NHA* or statutory Nature Reserves. • Undesignated sites containing good examples of Annex I habitats (under EU Habitats Directive). • Undesignated sites containing <u>significant numbers</u> of resident or regularly occurring populations of Annex II species under the EU Habitats Directive or Annex I species under the EU Birds Directive or species protected under the Wildlife (Amendment) Act 2000. • Major trout river fisheries. • Water bodies with major amenity fishery value. • Commercially important coarse fisheries.
C+	<p>County value Area of Special Amenity. Area subject to a Tree Preservation Order. Area of High Amenity, or equivalent, designated under the County Development Plan. Resident or regularly occurring populations (assessed to be important at the County level) of the following:</p> <ul style="list-style-type: none"> • Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive; • Species of animal and plants listed in Annex II and/or IV of the Habitats Directive; • Species protected under the Wildlife Acts; and/or • Species listed on the relevant Red Data list. <p>Site containing area or areas of the habitat types listed in Annex I of the Habitats Directive that do not fulfill the criteria for valuation as of International or National importance. County important populations of species, or viable areas of semi-natural habitats or natural heritage features identified in the National or Local BAP, if this has been prepared. Sites containing habitats and species that are rare or are undergoing a decline in quality or extent at a national level.</p>
C	<p>High value, locally important Sites containing semi-natural habitat types with high biodiversity in a local context and a high degree of naturalness, or significant populations of locally rare species. Sites containing any resident or regularly occurring populations of Annex II species under the EU Habitats Directive or Annex I species under the EU Birds Directive. Small water bodies with known salmonid populations or with good potential salmonid habitat. Large water bodies with some coarse fisheries value.</p>
D	<p>Moderate value, locally important Sites containing some semi-natural habitat or locally important for wildlife. Small water bodies with some coarse fisheries value or some potential salmonid habitat. Any water body with unpolluted water (Q-value rating 4-5).</p>
E	<p>Low value, locally important Artificial or highly modified habitats with low species diversity and low wildlife value. Water bodies with no current fisheries value and no significant potential fisheries value.</p>
F	<p>Unknown Value Sites of possible ecological value which require further investigation at the optimum season to establish importance. Sites of possible fisheries value requiring further survey.</p>

* SAC = Special Area of Conservation, SPA = Special Protection Area, NHA = Natural Heritage Area

Appendix 2: Individual Site Reports from the Longford Wetlands Field Survey 2019

Sites are listed in alphabetical order by site name. Unauthorised reproduction infringes Ordnance Survey Ireland and Government of Ireland copyright. © Ordnance Survey Ireland.

LFWS Site Code	LFWS Site Name	Page Number
LF44	LOUGH SALLAGH (LONGFORD)	XX
LF53	BLACK LOUGH	XX
LF130	KILLEEN PONDS	XX
LF131	KILLEEN LOUGH	XX
LF132	BALLIN LOUGH	XX
LF133	KILLEEN BOG	XX
LF134	AGHAGREAGH BOG	XX
LF135	CLONBRONEY BOG WOODLAND	XX
LF136	CLOONFIN LOUGH	XX
LF137	KNOCKMOODY BOG	XX
LF182	CURRYGRANE WET WOODLAND	XX
LF183	CURRYGRANE LOUGH	XX
LF186	CLOONFIN SOUTH	XX
LF254	BALLYBRIEN WETLAND	XX
LF283	KILLEEN POND (NORTH) - BALLIN LOUGH	XX
LF284	LISTRAGHEE LOUGH	XX
LF288	BALLYREAGHAN QUARRY POND	XX
LF289	DRUMMEEL FARM POND NORTH	XX

Site Name: LOUGH SALLAGH (LONGFORD)**Site Code:** LF44 **Area (ha):** 19.68 **Grid Ref:** 216297 291248 **County:** LF
LE**Site designation(s):**

Undesignated site

Surveyed by:

Peter Foss & Mary Catherine Gallagher

Date of wetland survey:

22/10/2019

Survey Code:

LFWS 2019

Site source information:Detailed Wetland Survey undertaken
Site previously reported from literature**Wetland Present on the Site**

YES

Conservation ranking after survey:

C Rating: Local conservation value (high value)

Townland:

FARDRUMMAN

Solid Geology:

Derryveeny Formation

Subsoil type:

Water

Substrate type:Made Ground
Mineral Soil**Substrate stability:**

Firm

River catchment:

Shannon Up

CORINE Habitats:

Water bodies

Site Location

Lough Sallagh is located 2.3km west of the village of Creelaghta, Co. Longford. The lake straddles the border with County Leitrim. Approximately two-thirds of the lake is located in Co. Leitrim.

Site Description and Wetland Habitats Recorded

Lake with fringing reed swamp habitat grading into wet willow and alder woodland, flooded during time of survey. Woodland dominates on the western side of the lake (County Leitrim) and along the southern shore (County Longford). Eastern side of lake (mostly in County Longford) has GS2 community between public road and lake, with some ornamental tree planting. There are a number of access points for fishing and boating on eastern lake shore. Agricultural fields slope down towards lake on east.

Target Notes - (see Habitat Map for location of Target Notes)

No.	Category	Comment
N1	Habitat	Phragmites reed bed.
N2	General	Lake is fringed by Phragmites reed bed which grades into wet woodland. In some places the lake is adjoined by a public road with GS2 species present along road edge. There are a number of slipway access points to the lake for fishers.
N3	Fauna	Heron and Cormorant.
N4	Damage	Litter at car park area. Photo 6689.
N5	General	Photos 6690-6696.
N6	General	Surrounding land slopes down towards lake.
N7	Fauna	Mallard.
N8	Habitat	GS4. Juncus dominated. Private property. Fence at edge of field is partly under water. Photo 6699.
N9	Habitat	Wet woodland, Willow dominant. WN6 Willow-Alder-Ash woodland. Some dumping present. This habitat occurs behind the reed bed around most of the lake.

Management Recommendations following survey

Some littering near car park areas on eastern shore. No information signs at lake to highlight biodiversity value. Consider installation. Lake used for perch roach bream fishing (as per finger sign to lake in south).

Future Survey Recommendations

None

Landowner Information Comments

None. Site viewed and surveyed from public road on the eastern side of lake.

Description of potential EU Habitats Directive Annex 1 habitats

None

Main Fossitt habitats on site

BL3 Buildings and artificial surfaces
ED Disturbed ground
FL Lakes & Ponds
FL4 Mesotrophic lakes
FS Swamps
FS1 Reed and large sedge swamps

EU Habitats Directive habitats on site

None noted

FW2 Depositing/lowland rivers
 GS2 Dry meadows and grassy verges
 GS4 Wet grassland
 WN6 Wet willow-alder-ash woodland
 WS1 Scrub

Fossitt habitats surrounding site

BL3 Buildings and artificial surfaces
 GA1 Improved agricultural grassland
 GS4 Wet grassland
 WL2 Treelines

Landuse / Management Activity

Fishing
 Amenity Management

Frequency of use

4 Dominant (>50%)
 2 Occasional (5-20%)

Impacting Activity (EU code and title)

F02.03 Leisure fishing

Intensity

D = unknown

Impact

Unknown

Threats

I01 invasive non-native species

Flora on site - Latin & English species name

<i>Acer pseudoplatanus</i>	Sycamore
<i>Agrostis stolonifera</i>	Creeping Bent
<i>Alnus glutinosa</i>	Alder
<i>Angelica sylvestris</i>	Wild Angelica
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
<i>Betula pubescens</i>	Downy Birch
<i>Centaurea nigra</i>	Common Knapweed
<i>Cerastium fontanum</i>	Common Mouse-ear
<i>Cirsium palustre</i>	Marsh Thistle
<i>Comarum palustre</i>	Marsh Cinquefoil
<i>Dactylis glomerata</i>	Cock's-foot
<i>Deschampsia cespitosa</i>	Tufted Hair-grass
<i>Epilobium hirsutum</i>	Great Willowherb
<i>Equisetum fluviatile</i>	Water Horsetail
<i>Filipendula ulmaria</i>	Meadowsweet
<i>Fraxinus excelsior</i>	Ash
<i>Hedera helix</i>	Ivy
<i>Holcus lanatus</i>	Alga
<i>Iris pseudacorus</i>	Yellow Iris
<i>Juncus effusus</i>	Soft-rush
<i>Lathyrus pratensis</i>	Meadow Vetchling
<i>Lemna minor</i>	Common Duckweed
<i>Myrica gale</i>	Bog-myrtle
<i>Nymphaea alba</i>	Creeping Forget-me-not
<i>Phragmites australis</i>	Common Reed
<i>Plantago lanceolata</i>	Ribwort Plantain

<i>Poa pratensis</i>	Smooth Meadow-grass
<i>Potentilla anserina</i>	Silverweed
<i>Quercus sp.</i>	Oak
<i>Ranunculus repens</i>	Creeping Buttercup
<i>Rubus fruticosus agg.</i>	Blackberry
<i>Rumex crispus</i>	Curled dock
<i>Salix caprea</i>	Goat Willow
<i>Salix cinerea subsp. oleifolia</i>	Rusty Willow
<i>Senecio aquaticus</i>	Marsh Ragwort
<i>Sorbus aucuparia</i>	Rowan
<i>Stachys palustris</i>	Marsh Woundwort
<i>Stellaria sp.</i>	Stichwort
<i>Taraxacum agg.</i>	Dandelion
<i>Trifolium pratense</i>	Red Clover
<i>Typha angustifolia</i>	Lesser Bulrush
<i>Typha latifolia</i>	Bulrush
<i>Ulex europaeus</i>	Gorse
<i>Urtica dioica</i>	Common Nettle
<i>Vicia cracca</i>	Tufted Vetch
<i>Vicia sepium</i>	Bush Vetch

Fauna on site - English and Latin species name

Blue tit	<i>Cyanistes caeruleus</i>
Cormorant	<i>Phalacrocorax carbo</i>
Grey Heron	<i>Ardea cinerea</i>
Long-tailed Tit	<i>Aegithalos caudatus</i>
Magpie	<i>Pica pica</i>
Mallard	<i>Anas platyrhynchos</i>
Mute Swan	<i>Cygnus olor</i>
Robin	<i>Erithacus rubecula</i>
Wren	<i>Troglodytes troglodytes</i>

Aerial Photograph showing location of the site



Figure 1. Aerial photograph showing the appearance and location of site shown by the site code and red outline (where appropriate). Aerial photograph copyright Ordnance Survey of Ireland.

GIS Habitat map of the site

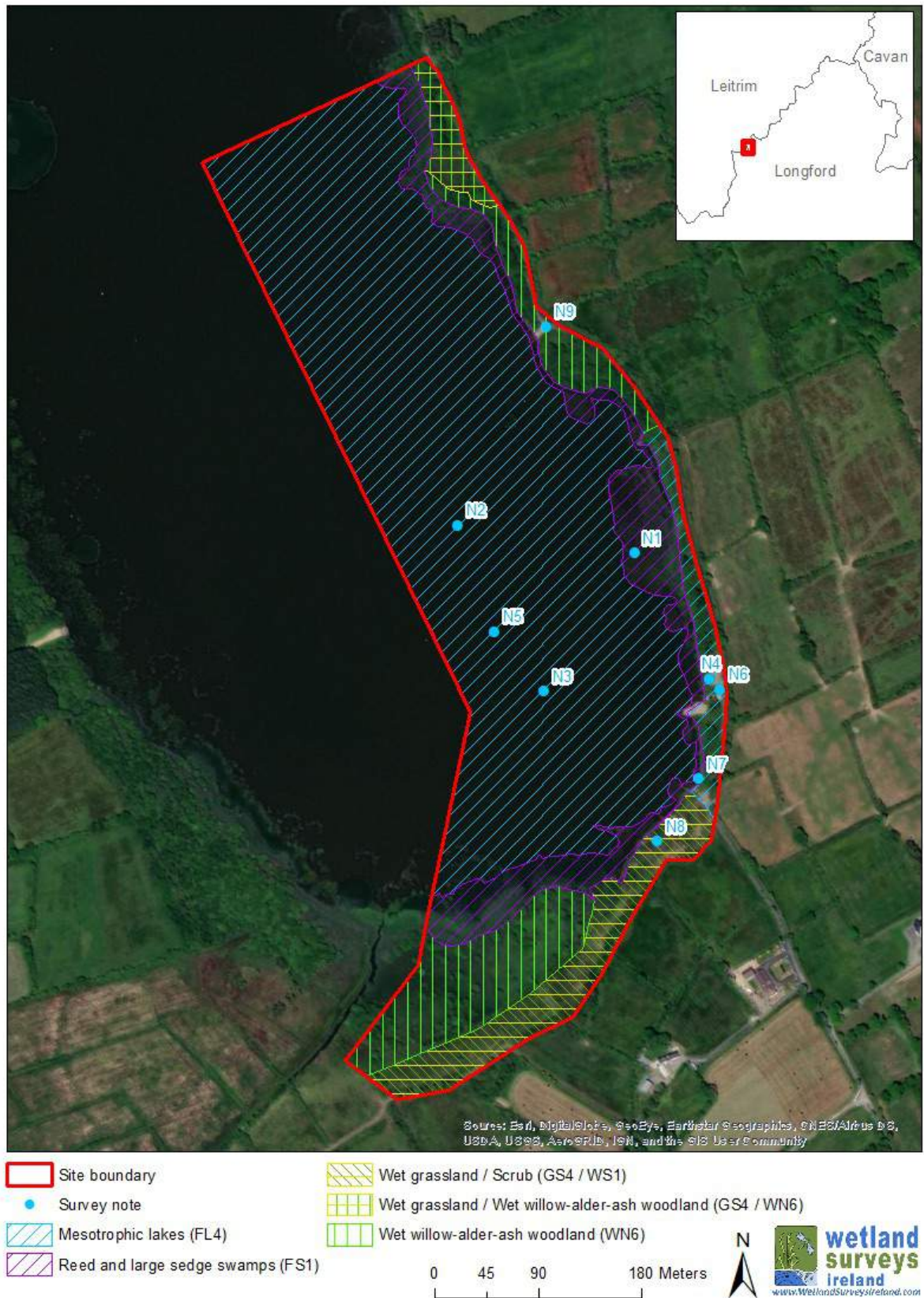


Figure 2. Habitat map of site, with site boundary shown in red. Base map copyright Ordnance Survey of Ireland.

Site Name: BLACK LOUGH**Site Code:** LF53 **Area (ha):** 16.07 **Grid Ref:** 222908 297809 **County:** LF**Site designation(s):**

Undesignated site

Surveyed by:

Peter Foss & Mary Catherine Gallagher

Date of wetland survey:

22/10/2019

Survey Code:

LFWS 2019

Site source information:

Detailed Wetland Survey undertaken

Limited site inspection only

Site previously reported from literature

Wetland Present on the Site

YES

Conservation ranking after survey:

C Rating: Local conservation value (high value)

Townland:

BALLYDUFFY

Solid Geology:

Derryveeney Formation

Subsoil type:

Water

Substrate type:

Mineral Soil

Peat

Substrate stability:

Firm

River catchment:

Erne

CORINE Habitats:

Pastures

Site Location

Black Lough is located 2.2km north west of the village of Moyne, in the north of County Longford.

Site Description and Wetland Habitats Recorded

Southern part of site bounded by wide zone of wet willow birch woodland extensively flooded during survey. At end of lane to woodland, local dumping and invasive Japanese Knotweed was observed. Woodland area shows evidence of farm runoff. Northern part of site is extensive Phragmites dominated reed swamp with central river channel. Woodland in valley adjacent to reed swamp is willow dominated. Birch woodland confined to higher ground sloping down to reed swamp in the south. On eastern side FS1 grades into GS4 with regular drainage ditches which is used for rough cattle grazing.

Target Notes - (see Habitat Map for location of Target Notes)

No.	Category	Comment
N1	Habitat	Birch, Alder, Willow woodland with Japanese Knotweed. Photos 6714-15.
N2	Invasive	Large stand of Japanese Knotweed. Photo 6718.
N3	Habitat	Birch, Willow woodland with Bramble and Ivy understorey. Non annex woodland on wet mineral soil. Areas of pooled water present. Include in wetland site. Photos 6719 - 6723.
N4	General	Not possible to access original site through this woodland.
N5	Habitat	GS2/WS1. Japanese Knotweed present. Local dumping occurring.
N6	Invasive	Snowberry.
N7	Invasive	Cherry Laurel.
N8	General	Birch dominated at southern end, but becomes Willow dominated towards reed swamp.
N9	General	Photos 6731-6734.

Management Recommendations following survey

Invasive Japanese Knotweed removal from southern woodland areas near the end of farm track.

Future Survey Recommendations

Wet woodland survey might be considered earlier in season when water levels are lower, and access to site is possible.

Landowner Information Comments

LD5760 - Ballyduffy, Moyne, Co. Longford, N39 PR92. Site viewed from a distance, from north east. Access not possible due to cattle in fields around site and deep flooded drainage ditches. Site also accessed from public road to the south (wooded area), but access also limited due to high water levels.

Description of potential EU Habitats Directive Annex 1 habitats

None

Main Fossitt habitats on site

FS Swamps

FS1 Reed and large sedge swamps

FW2 Depositing/lowland rivers

GS2 Dry meadows and grassy verges

EU Habitats Directive habitats on site

None noted

GS4 Wet grassland

WN Semi-natural woodland

WN6 Wet willow-alder-ash woodland

WS1 Scrub

Fossitt habitats surrounding site

GA1 Improved agricultural grassland

GS4 Wet grassland

WL1 Hedgerows

Landuse / Management Activity

None

Frequency of use

4 Dominant (>50%)

Impacting Activity (EU code and title)

J02.05 Modification of hydrographic functioning,

Intensity

C = low

Impact

- 1 = reparable negative influence

Threats

H01.05 diffuse pollution to surface waters due to agricultural and forestry activities

I02 problematic native species

J02.05 Modification of hydrographic functioning, general

Flora on site - Latin & English species name

<i>Acer pseudoplatanus</i>	Sycamore
<i>Agrostis stolonifera</i>	Creeping Bent
<i>Alnus glutinosa</i>	Alder
<i>Athyrium felix-femina</i>	
<i>Betula pubescens</i>	Downy Birch
<i>Crataegus monogyna</i>	Hawthorn
<i>Deschampsia cespitosa</i>	Tufted Hair-grass
<i>Dryopteris affinis</i>	Scaly Male-fern
<i>Epilobium hirsutum</i>	Great Willowherb
<i>Fallopia japonica</i>	Japanese Knotweed
<i>Filipendula ulmaria</i>	Meadowsweet
<i>Fraxinus excelsior</i>	Ash
<i>Geranium robertianum</i>	Herb-Robert
<i>Hedera helix</i>	Ivy
<i>Heracleum sphondylium</i>	Hogweed
<i>Ilex aquifolium</i>	Holly
<i>Juncus effusus</i>	Soft-rush
<i>Juncus inflexus</i>	Hard Rush
<i>Lonicera periclymenum</i>	Honeysuckle
<i>Phalaris arundinacea</i>	Reed Canary-grass
<i>Phragmites australis</i>	Common Reed
<i>Pteridium aquilinum</i>	Bracken
<i>Rubus fruticosus agg.</i>	Blackberry
<i>Salix cinerea subsp. oleifolia</i>	Rusty Willow
<i>Scrophularia nodosa</i>	Common Figwort
<i>Sorbus aucuparia</i>	Rowan
<i>Typha latifolia</i>	Bulrush

Fauna on site - English and Latin species name

Common frog	<i>Rana temporaria</i>
Magpie	<i>Pica pica</i>
Robin	<i>Erithacus rubecula</i>
Wren	<i>Troglodytes troglodytes</i>

Aerial Photograph showing location of the site



Figure 1. Aerial photograph showing the appearance and location of site shown by the site code and red outline (where appropriate). Aerial photograph copyright Ordnance Survey of Ireland.

GIS Habitat map of the site

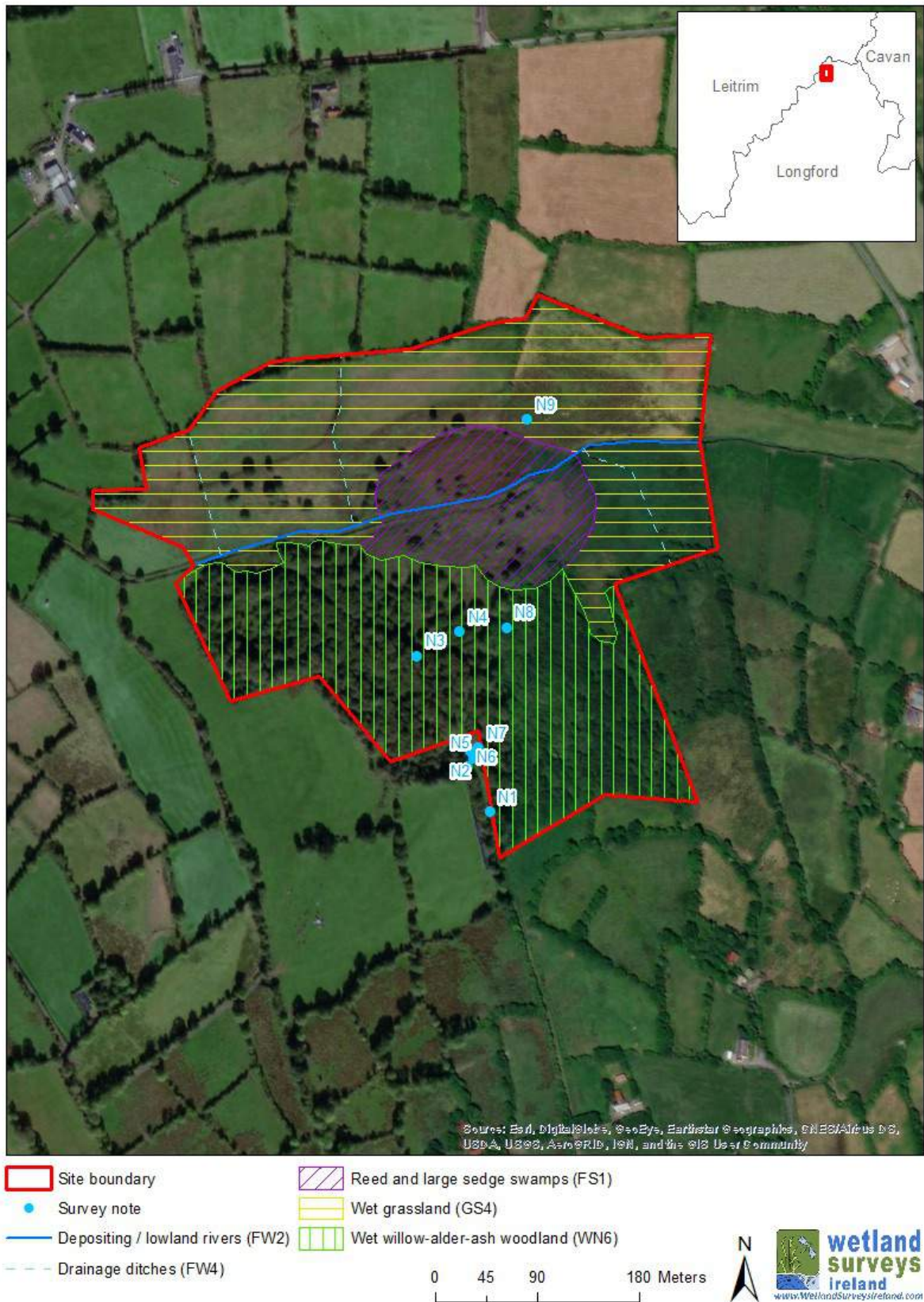


Figure 2. Habitat map of site, with site boundary shown in red. Base map copyright Ordnance Survey of Ireland.

Site Name: KILLEEN PONDS**Site Code:** LF130 **Area (ha):** 22.68 **Grid Ref:** 228082 280932 **County:** LF**Site designation(s):**

Undesignated site

Surveyed by:

Peter Foss & Mary Catherine Gallagher

Date of wetland survey:

23/10/2019

Survey Code:

LFWS 2019

Site source information:

Limited site inspection only

Site previously reported from literature

Wetland Present on the Site

YES

Conservation ranking after survey:

E Rating: Local conservation value (low value)

Townland:

KILLEEN (GRANARD BY)

Solid Geology:

Visean basinal limestone

Subsoil type:

TLPSsS

Substrate type:

Mineral Soil

Substrate stability:

Very firm

River catchment:

Shannon Upr

CORINE Habitats:

Pastures

Site Location

This site forms part of the Killeen Lough Wetland Complex. The ponds are located 5.4km east of Ballinalee, just east of Killeen Bog, Co. Longford.

Site Description and Wetland Habitats Recorded

Series of artificial ponds in highly managed agricultural grassland (GA1). Access not possible due to locked gate and stock presence. One pond near road visible from public road which has become infilled with *Juncus* vegetation.

Target Notes - (see Habitat Map for location of Target Notes)

No.	Category	Comment
N1	Habitat	Rush filled wet hollow.
N2	General	GA1 silage field with cattle present at time of survey. Locked gate. Access not possible. Artificial ponds within the improved grassland. Photos 6860-6861.
N3	Invasive	Small zebra mussel shell washed up on shore.

Management Recommendations following survey

None

Future Survey Recommendations

None

Landowner Information Comments

None. Site viewed from public road. Access not possible due to locked gate and cattle in fields.

Description of potential EU Habitats Directive Annex 1 habitats

None

Main Fossitt habitats on site	EU Habitats Directive habitats on site	
ED Disturbed ground	None noted	
ED3 Recolonising bare ground		
FL8 Other artificial lakes and ponds		
GA1 Improved agricultural grassland		
GS4 Wet grassland		
Fossitt habitats surrounding site		
BL3 Buildings and artificial surfaces		
ED Disturbed ground		
ED3 Recolonising bare ground		
GA1 Improved agricultural grassland		
Landuse / Management Activity	Frequency of use	
Grazing - cattle	4 Dominant (>50%)	
Meadow - silage	4 Dominant (>50%)	
Impacting Activity (EU code and title)	Intensity	Impact
A03 mowing / cutting of grassland	A = high	- 1 = reparable negative influence
A04.01.01 intensive cattle grazing	A = high	- 1 = reparable negative influence
Threats		
H01.05 diffuse pollution to surface waters due to agricultural and forestry activities		
Flora on site - Latin & English species name		
<i>Juncus effusus</i>		Soft-rush
<i>Juncus inflexus</i>		Hard Rush

Lolium perenne

Perennial Rye-grass

Fauna on site - English and Latin species name

No faunal observations were made

Aerial Photograph showing location of the site



Figure 1. Aerial photograph showing the appearance and location of site shown by the site code and red outline (where appropriate). Aerial photograph copyright Ordnance Survey of Ireland.

GIS Habitat map of the site



Figure 2. Habitat map of site, with site boundary shown in red. Base map copyright Ordnance Survey of Ireland.

Site Name: KILLEEN LOUGH**Site Code:** LF131 **Area (ha):** 22.28 **Grid Ref:** 227833 281503 **County:** LF**Site designation(s):**

Undesignated site

Surveyed by:

Peter Foss & Mary Catherine Gallagher

Date of wetland survey:

23/10/2019

Survey Code:

LFWS 2019

Site source information:

Detailed Wetland Survey undertaken

Site previously reported from literature

Wetland Present on the Site

YES

Conservation ranking after survey:

C Rating: Local conservation value (high value)

Townland:

KILLEEN (GRANARD BY)

Solid Geology:

Visean basinal limestone

Subsoil type:

Water

Substrate type:

Peat

Substrate stability:

Firm

River catchment:

Shannon Up

CORINE Habitats:

Transitional woodland scrub

Site Location

This site forms part of the Killeen Lough Wetland Complex. The lough is located 5.2km east of Ballinalee, on the eastern edge of Killeen Bog, Co. Longford.

Site Description and Wetland Habitats Recorded

Large lake with fringing reed swamp habitat. Phragmites is dominant species. On the northern side of the lake, land is cattle grazed, and where land levels out at lake edge wet grassland community occurs. SW side of lake is adjoined by mature conifer plantation (spruce). Lake is hydrologically connected to site LF132, Ballin Lough.

Target Notes - (see Habitat Map for location of Target Notes)

No.	Category	Comment
N1	Fauna	Mallard.
N2	Habitat	Sheep grazed GA1 sloping down to lake.
N3	Habitat	Willow scrub grading into FS1.
N4	General	Mesotrophic lake with fringing reed bed. Phragmites dominated. GA1 slopes down from northern side. Cattle grazed. Where the land levels it is comprised of GS4 which then grades into FS1. WD4 adjoins at southern end. Photos 6848-6858.

Management Recommendations following survey

None

Future Survey Recommendations

None

Landowner Information Comments

LD6374 - Cloonfin House, Clonfin, Ballinalee, Co. Longford, N39 XT92. Access via SWS forestry plantation to the west of site, used by people accessing fishing areas on lakeshore.

Description of potential EU Habitats Directive Annex 1 habitats

None

Main Fossitt habitats on site

FL Lakes & Ponds

FL4 Mesotrophic lakes

FS Swamps

FS1 Reed and large sedge swamps

FW2 Depositing/lowland rivers

GS4 Wet grassland

WS1 Scrub

Fossitt habitats surrounding site

GA1 Improved agricultural grassland

GS4 Wet grassland

WD4 Conifer plantation

WS1 Scrub

EU Habitats Directive habitats on site

None noted

Landuse / Management Activity

Grazing - cattle

Frequency of use

2 Occasional (5-20%)

Impacting Activity (EU code and title)

H01.05 diffuse pollution to surface waters due to

Intensity

D = unknown

Impact

Unknown

Threats

H01.05 diffuse pollution to surface waters due to agricultural and forestry activities

Flora on site - Latin & English species name

<i>Agrostis stolonifera</i>	Creeping Bent
<i>Angelica sylvestris</i>	Wild Angelica
<i>Betula pubescens</i>	Downy Birch
<i>Calliergonella cuspidata</i>	Pointed Spear Moss
<i>Callitriche stagnalis</i>	Common Water-starwort
<i>Carex spp.</i>	Sedge
<i>Comarum palustre</i>	Marsh Cinquefoil
<i>Filipendula ulmaria</i>	Meadowsweet
<i>Galium palustre</i>	Marsh-bedstraw
<i>Iris pseudacorus</i>	Yellow Iris
<i>Juncus effusus</i>	Soft-rush
<i>Juncus inflexus</i>	Hard Rush
<i>Lemna minor</i>	Common Duckweed
<i>Lysimachia nemorum</i>	Yellow Pimpernel
<i>Lythrum salicaria</i>	Purple-loosestrife
<i>Nymphaea alba</i>	White Water-lily
<i>Phalaris arundinacea</i>	Reed Canary-grass
<i>Phragmites australis</i>	Common Reed
<i>Ranunculus repens</i>	Creeping Buttercup
<i>Rubus fruticosus agg.</i>	Blackberry
<i>Salix cinerea subsp. oleifolia</i>	Rusty Willow
<i>Salix viminalis</i>	Osier
<i>Schoenoplectus lacustris</i>	Common Club-rush
<i>Sparganium erectum</i>	Branched Bur-reed
<i>Valeriana officinalis</i>	Common Valerian

Fauna on site - English and Latin species name

Mallard	<i>Anas platyrhynchos</i>
Robin	<i>Erithacus rubecula</i>

Aerial Photograph showing location of the site



Figure 1. Aerial photograph showing the appearance and location of site shown by the site code and red outline (where appropriate). Aerial photograph copyright Ordnance Survey of Ireland.

GIS Habitat map of the site

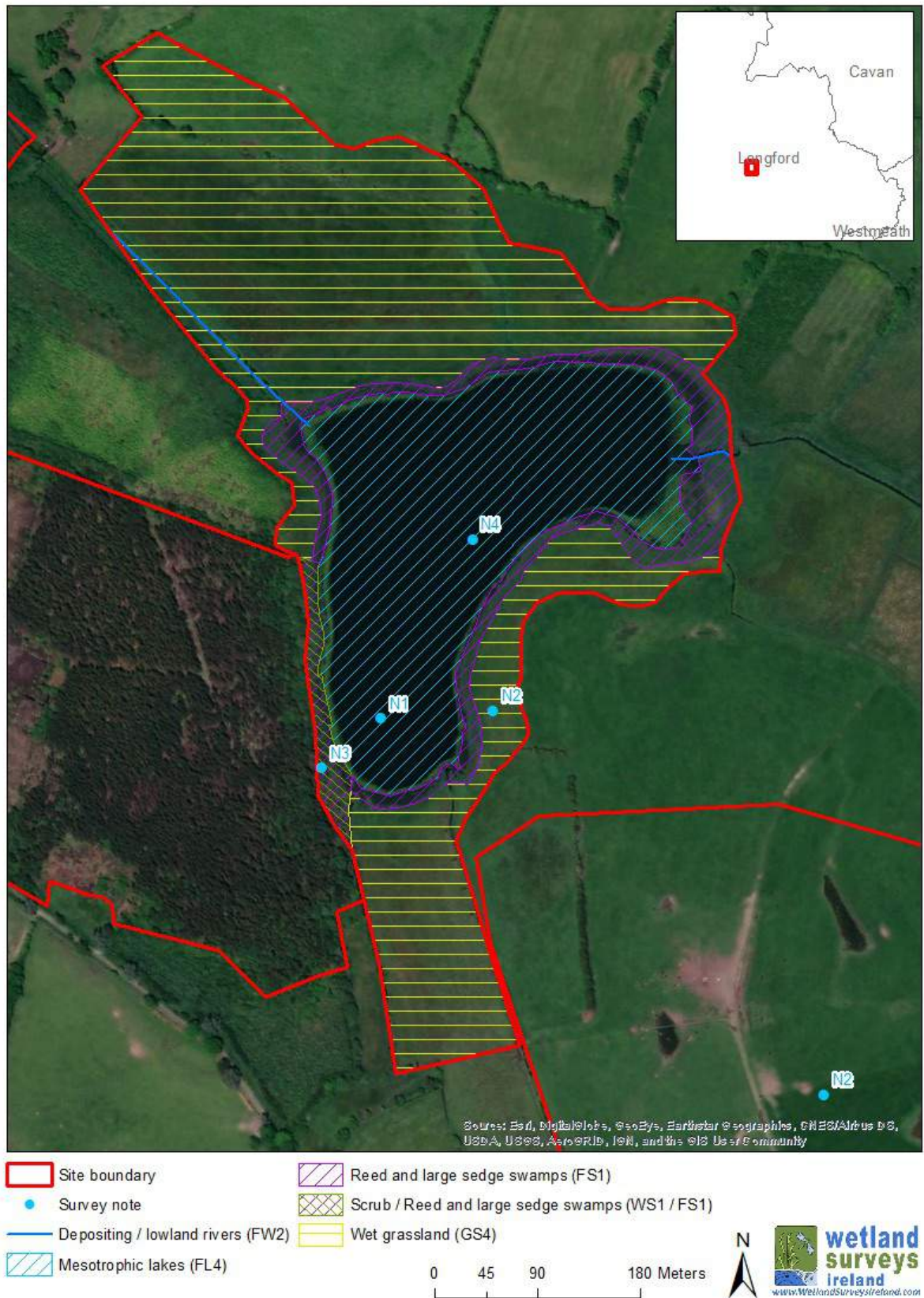


Figure 2. Habitat map of site, with site boundary shown in red. Base map copyright Ordnance Survey of Ireland.

Site Name: BALLIN LOUGH**Site Code:** LF132 **Area (ha):** 7.93 **Grid Ref:** 227132 281887 **County:** LF**Site designation(s):**

Undesignated site

Surveyed by:

Peter Foss & Mary Catherine Gallagher

Date of wetland survey:

23/10/2019

Survey Code:

LFWS 2019

Site source information:Detailed Wetland Survey undertaken
Site previously reported from literature**Wetland Present on the Site**

YES

Conservation ranking after survey:

C+ Rating: County Conservation value

Townland:

BALLINLOUGH

Solid Geology:

Visean basinal limestone

Subsoil type:

Water

Substrate type:Mineral Soil
Peat**Substrate stability:**

Firm

River catchment:

Shannon Up

CORINE Habitats:

Transitional woodland scrub

Site Location

This site forms part of the Killeen Lough Wetland Complex. The lough is located 4.6km east north east of Ballinalee, at the northern end of Killeen Bog, Co. Longford.

Site Description and Wetland Habitats Recorded

Large lake surrounded by fringing reed swamp dominated by Phragmites. Wet grassland and willow scrub communities occur on southern boundary. On northern side of lake, land rises beyond reed swamp and is GA1 used to graze cattle.

Target Notes - (see Habitat Map for location of Target Notes)

No.	Category	Comment
N1	Habitat	FS1.
N2	General	Looks like this access track is regularly used. Probably people fishing in lake.
N3	Habitat	GA1 slopes down to lake.
N4	Flora	Bright green colouration is Water Lillies, likely Nymphaea alba.
N5	General	Photos 6817-6821.
N6	Management	Slurry recently spread on field sloping down to lake.
N7	Damage	Well worn tack to lake with open area at edge that is well trodden. Some litter present. Photo 6826.
N8	General	Well trodden fishing access point.
N9	General	Both lakes connected by this channel.
N10	General	Photo 6844.
N11	General	Deep drainage channel preventing access to other side.
N12	Fauna	Possible Otter spraint.

Management Recommendations following survey

Lake used extensively for fishing, numerous access points have been created along lake shore, which show vegetation damage and erosion. Litter also present. Fishing platforms should be installed.

Future Survey Recommendations

Two Marsh fritillary webs located in the south western part of the site during the survey, and suitable structured vegetation observed. Marsh fritillary survey of wet grassland beside lake recommended at appropriate time of the year due to abundance of suitable structured habitat with Devils Bit Scabious, to assess species distribution and abundance at the site.

Landowner Information Comments

None. Site accessed via turbary road.

Description of potential EU Habitats Directive Annex 1 habitats

None, however, Marsh Fritillary a priority EU Habitats Directive species recorded during survey.

Main Fossitt habitats on site

FL Lakes & Ponds

FL4 Mesotrophic lakes

FS Swamps

FS1 Reed and large sedge swamps

FW2 Depositing/lowland rivers

GS Semi-Natural Grassland

GS4 Wet grassland

WN Semi-natural woodland

WN6 Wet willow-alder-ash woodland

WS Scrub/transitional woodland

WS1 Scrub

Fossitt habitats surrounding site

GA1 Improved agricultural grassland

GS4 Wet grassland

WL1 Hedgerows

EU Habitats Directive habitats on site

None noted

Landuse / Management Activity

None

Frequency of use

4 Dominant (>50%)

Impacting Activity (EU code and title)

H01.05 diffuse pollution to surface waters due to

Intensity

D = unknown

Impact

Unknown

Threats

H01.05 diffuse pollution to surface waters due to agricultural and forestry activities

Flora on site - Latin & English species name*Agrostis stolonifera*

Creeping Bent

Alnus glutinosa

Alder

Angelica sylvestris

Wild Angelica

Betula pubescens

Downy Birch

Calystegia sepium

Hedge Bindweed

Carex sp.

Sedge

Dactylis glomerata

Cock's-foot

Deschampsia cespitosa

Tufted Hair-grass

Epilobium hirsutum

Great Willowherb

Equisetum fluviatile

Water Horsetail

Festuca rubra

Red Fescue

Filipendula ulmaria

Meadowsweet

Galium palustre

Marsh-bedstraw

Hippuris vulgaris

Mare's-tail

Holcus lanatus

Yorkshire-fog

Iris pseudacorus

Yellow Iris

Lathyrus pratensis

Meadow Vetchling

Lythrum salicaria

Purple-loosestrife

Molinia caerulea

Purple Moor-grass

Nuphar lutea

Yellow Water-lily

<i>Nymphaea alba</i>	White Water-lily
<i>Persicaria amphibia</i>	Amphibious Bistort
<i>Phragmites australis</i>	Common Reed
<i>Plantago lanceolata</i>	Ribwort Plantain
<i>Potentilla anserina</i>	Silverweed
<i>Pteridium aquilinum</i>	Bracken
<i>Ranunculus repens</i>	Creeping Buttercup
<i>Rubus fruticosus</i> agg.	Blackberry
<i>Rumex acetosa</i>	Common Sorrel
<i>Salix cinerea</i> subsp. <i>oleifolia</i>	Rusty Willow
<i>Salix viminalis</i>	Osier
<i>Schedonorus arundinaceus</i>	Tall Fescue
<i>Schoenoplectus lacustris</i>	Common Club-rush
<i>Scorzonerooides autumnalis</i>	Autumn Hawkbit
<i>Stellaria palustris</i>	Marsh Stitchwort
<i>Succisa pratensis</i>	Devil's-bit Scabious
<i>Taraxacum</i> agg.	Dandelion
<i>Typha latifolia</i>	Bulrush
<i>Urtica dioica</i>	Common Nettle
<i>Vicia cracca</i>	Tufted Vetch

Fauna on site - English and Latin species name

Goldcrest	<i>Regulus regulus</i>
Grey heron	<i>Ardea cinerea</i>
Magpie	<i>Pica pica</i>
Marsh fritillary	<i>Euphydryas aurinia</i>
Whirligig beetle	<i>Gyrinus substriatus</i>

Aerial Photograph showing location of the site



Figure 1. Aerial photograph showing the appearance and location of site shown by the site code and red outline (where appropriate). Aerial photograph copyright Ordnance Survey of Ireland.

GIS Habitat map of the site

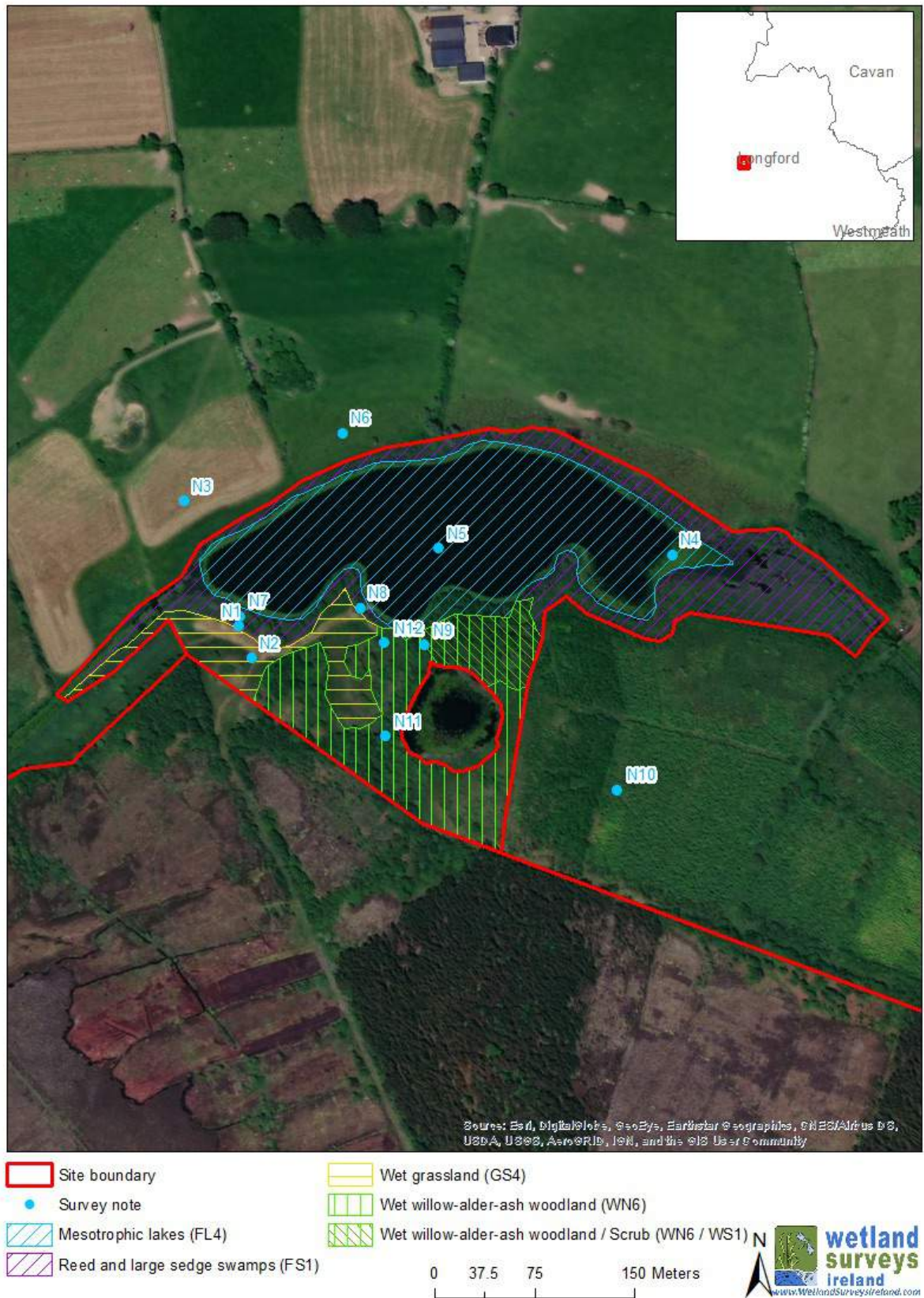


Figure 2. Habitat map of site, with site boundary shown in red. Base map copyright Ordnance Survey of Ireland.

Site Name: KILLEEN BOG**Site Code:** LF133 **Area (ha):** 84.42 **Grid Ref:** 227208 280982 **County:** LF**Site designation(s):**

Undesignated site

Surveyed by:

Peter Foss & Mary Catherine Gallagher

Date of wetland survey:

21/10/2019

Survey Code:

LFWS 2019

Site source information:Detailed Wetland Survey undertaken
Site previously reported from literature**Wetland Present on the Site**

YES

Conservation ranking after survey:

C+ Rating: County Conservation value

Townland:

CLOONFIN

Solid Geology:

Visean basinal limestone

Subsoil type:

Cut

Substrate type:Made Ground
Peat**Substrate stability:**

Firm

River catchment:

Shannon Up

CORINE Habitats:

Peat bogs

Site Location

This site forms part of the Killeen Lough Wetland Complex. The cutover and raised bog site is located 4.5km east of Ballinalee, Co. Longford.

Site Description and Wetland Habitats Recorded

Extensive site composed of a mosaic of cutover bog, degraded high bog, non annex bog woodland and scrub communities, with a number of turbary tracks bisecting the site. Recent mechanical peat harvesting noted at southern and northern end of site. Some cutover areas showing bog community regeneration in wetter areas. Remaining high bog degraded with only marginal vegetation present. No active raised bog communities observed. Large central drain (townland boundary) runs through centre of high bog.

Target Notes - (see *Habitat Map for location of Target Notes*)

No.	Category	Comment
N1	Invasive	Rhododendron bush. Photo 6649.
N2	General	Cutover bog. Molinia dominated. Scattered Birch trees. Photos 6647-6648.
N3	General	Wet hollows present, infilled with Sphagnum.
N4	Fauna	Buzzard.
N5	Fauna	Pine marten scat. Photo 6653.
N6	Fauna	Abundant hoverflies feeding on Ivy.
N7	Fauna	Possible Deer tracks.
N8	General	Peat drying area with peat in bags, probably from this year. Photo 6655.
N9	Fauna	Frog.
N10	Damage	Extensive disturbance. Area looks like it was cut this year. Photo 6658.
N11	General	Sheep grazed.
N12	Habitat	Felled WD4. Photo 6792.
N13	Fauna	Heron.
N14	Damage	Old town land boundary ditch.
N15	General	Photos: 6677-78 (drain), 6670-6676 (panorama).

Management Recommendations following survey

Remove invasive Rhododendron from cutover bog area.

Future Survey Recommendations

Marsh fritillary web located in the northern part of the site, and suitable structured vegetation observed. Survey of cutover at this site recommended at appropriate time of the year to assess species distribution and abundance at the site.

Landowner Information Comments

Multiple private owners. Site viewed and accessed via turbarry roads at a number of locations in south, central and northern area. In south local owner allowed access from her property.

Description of potential EU Habitats Directive Annex 1 habitats

None, however, Marsh Fritillary a priority EU Habitats Directive species recorded during survey.

Main Fossitt habitats on site

BL3 Buildings and artificial surfaces

FW4 Drainage ditches

GS Semi-Natural Grassland

GS4 Wet grassland

HD1 Dense bracken

PB1 Raised bogs

PB4 Cutover bog

WD4 Conifer plantation

WL2 Treelines

WN7 Bog woodland

WS1 Scrub

WS5 Recently-felled woodland

EU Habitats Directive habitats on site

None noted

Fossitt habitats surrounding site

BL3 Buildings and artificial surfaces

FL Lakes & Ponds

GA1 Improved agricultural grassland

GS4 Wet grassland

WD4 Conifer plantation

WL2 Treelines

Landuse / Management Activity

Forestry

Peat cutting (hand)

Peat cutting (mechanical)

Frequency of use

2 Occasional (5-20%)

4 Dominant (>50%)

4 Dominant (>50%)

Impacting Activity (EU code and title)

J02.05 Modification of hydrographic functioning,

C01.03.01 hand cutting of peat

C01.03.02 mechanical removal of peat

B01 forest planting on open ground

Intensity

A = high

A = high

A = high

B = medium

Impact

- 2 = irreparable negative influence

- 2 = irreparable negative influence

- 2 = irreparable negative influence

- 1 = reparable negative influence

Threats

B01 forest planting on open ground

C01.03.02 mechanical removal of peat

I02 problematic native species

J01.01 burning down

J02.05 Modification of hydrographic functioning, general

Flora on site - Latin & English species name

<i>Acer pseudoplatanus</i>	Sycamore
<i>Agrostis stolonifera</i>	Creeping Bent
<i>Aulacomnium palustre</i>	Moss
<i>Betula pubescens</i>	Downy Birch
<i>Calliergonella cuspidata</i>	Pointed Spear Moss
<i>Calluna vulgaris</i>	Ling Heather
<i>Carex demissa</i>	Common Yellow-sedge
<i>Cladonia portentosa</i>	Branching Lichen
<i>Cladonia uncialis</i>	Antler Lichen
<i>Comarum palustre</i>	Marsh Cinquefoil
<i>Crataegus monogyna</i>	Hawthorn
<i>Dactylorhiza sp.</i>	Orchid
<i>Dryopteris borrieri</i>	Scaly Male-fern
<i>Epilobium hirsutum</i>	Great Willowherb
<i>Erica tetralix</i>	Cross-leaved Heath
<i>Eriophorum angustifolium</i>	Common Cottongrass
<i>Eriophorum vaginatum</i>	Hare's-tail Cottongrass
<i>Filipendula ulmaria</i>	Meadowsweet
<i>Hedera helix</i>	Ivy
<i>Juncus articulatus</i>	Jointed Rush
<i>Juncus bulbosus</i>	Bulbous Rush
<i>Juncus effusus</i>	Soft-rush
<i>Lotus pedunculatus</i>	Greater Bird's-foot-trefoil
<i>Molinia caerulea</i>	Purple Moor-grass
<i>Myrica gale</i>	Bog-myrtle
<i>Narthecium ossifragum</i>	Bog Asphodel
<i>Picea sitchensis</i>	Sitka Spruce
<i>Pinus sylvestris</i>	Scots Pine
<i>Polytrichum commune</i>	Common Haircap Moss
<i>Potentilla erecta</i>	Tormentil
<i>Pteridium aquilinum</i>	Bracken
<i>Rhododendron ponticum</i>	Rhododendron
<i>Rhynchospora alba</i>	White Beak-sedge
<i>Rubus fruticosus agg.</i>	Blackberry
<i>Salix cinerea subsp. oleifolia</i>	Rusty Willow
<i>Senecio aquaticus</i>	Marsh Ragwort
<i>Sphagnum capillifolium</i>	Acute-leaved Bog Moss
<i>Sphagnum cuspidatum</i>	Feathery Bog Moss
<i>Sphagnum palustre</i>	Blunt-leaved Bog Moss
<i>Sphagnum papillosum</i>	Papillose Bog Moss
<i>Succisa pratensis</i>	Devil's-bit Scabious
<i>Trichophorum cespitosum</i>	Deergrass
<i>Ulex europaeus</i>	Gorse
<i>Urtica dioica</i>	Common Nettle
<i>Vaccinium myrtillus</i>	Bilberry

*Vicia cracca*Tufted Vetch

Fauna on site - English and Latin species name

Blackbird

Turdus merula

Common buzzard

Buteo buteo

Common frog

Rana temporaria

Grey Heron

Ardea cinerea

Hooded crow

Corvus cornix

Magpie

Pica pica

Marsh fritillary

Euphydryas aurinia

Meadow Pipit

Anthus pratensis

Pine Marten

Martes martes

Robin

Erithacus rubecula

Wren

Troglodytes troglodytes

Aerial Photograph showing location of the site



Figure 1. Aerial photograph showing the appearance and location of site shown by the site code and red outline (where appropriate). Aerial photograph copyright Ordnance Survey of Ireland.

GIS Habitat map of the site



Figure 2. Habitat map of site, with site boundary shown in red. Base map copyright Ordnance Survey of Ireland.

Site Name: AGHAGREAGH BOG**Site Code:** LF134 **Area (ha):** 45.41 **Grid Ref:** 226269 281537 **County:** LF**Site designation(s):**

Undesignated site

Surveyed by:

Peter Foss & Mary Catherine Gallagher

Date of wetland survey:

21/10/2019

Survey Code:

LFWS 2019

Site source information:Detailed Wetland Survey undertaken
Site previously reported from literature**Wetland Present on the Site**

YES

Conservation ranking after survey:

D Rating: Local conservation value (moderate value)

Townland:

AGHAGREAGH

Solid Geology:

Visean basinal limestone

Subsoil type:

Cut

Substrate type:Made Ground
Peat**Substrate stability:**

Firm

River catchment:

Shannon Upr

CORINE Habitats:

Peat bogs

Site Location

This site forms part of the Killeen Lough Wetland Complex. The cutover bog area is located 3.7km east north east of Ballinalee, Co. Longford.

Site Description and Wetland Habitats Recorded

Relatively flat area of mostly cutover bog dominated in large part by *Molinia*. Small uncut area of high bog dominated by *Calluna* occur in the western part of site. Intact high bog areas were recently burnt (last 3 years). Peat cutting observed from current year. Scrub on edges of turbary tracks and surrounding edge of cutover area. Scattered small stands of birch occur throughout cutover area.

Target Notes - (see Habitat Map for location of Target Notes)

No.	Category	Comment
N1	Damage	Dumping.
N2	Fauna	Buzzard flying over site.
N3	General	Relatively flat cutover bog, both sides of access track. <i>Molinia</i> dominated, with scattered Birch. <i>Typha</i> present in drainage ditch along path.
N4	Habitat	This side has more Birch scrub present at this point.
N5	Damage	Recent peat cutting (this year).
N6	Damage	This area has been burned and does not seem to have been cut.
N7	General	PB1, burned but not cut. Photos 6642-6643.
N8	Fauna	Hare droppings.

Management Recommendations following survey

Stop dumping of house refuse occurs along turbary tracks especially in the north east of site.

Future Survey Recommendations

None

Landowner Information Comments

None. Site accessed and surveyed from forestry/turbary road which runs along the eastern edge of the site, and runs through the middle of the site.

Description of potential EU Habitats Directive Annex 1 habitats

None

Main Fossitt habitats on site

BL3 Buildings and artificial surfaces
 FL8 Other artificial lakes and ponds
 FW4 Drainage ditches
 GS2 Dry meadows and grassy verges
 GS4 Wet grassland
 PB1 Raised bogs
 PB4 Cutover bog
 WN7 Bog woodland

EU Habitats Directive habitats on site

None noted

WS1 Scrub

Fossitt habitats surrounding site

BL3 Buildings and artificial surfaces

FW4 Drainage ditches

GA1 Improved agricultural grassland

GS4 Wet grassland

WD4 Conifer plantation

WL1 Hedgerows

WS1 Scrub

Landuse / Management Activity

Peat cutting (mechanical)

Frequency of use

4 Dominant (>50%)

Impacting Activity (EU code and title)

C01.03.02 mechanical removal of peat

J02.05 Modification of hydrographic functioning,

Intensity

A = high

A = high

Impact

- 2 = irreparable negative influence

- 2 = irreparable negative influence

Threats

B01 forest planting on open ground

C01.03.02 mechanical removal of peat

E03.01 disposal of household waste

J01.01 burning down

J02.05 Modification of hydrographic functioning, general

Flora on site - Latin & English species name

<i>Agrostis stolonifera</i>	Creeping Bent
<i>Angelica sylvestris</i>	Wild Angelica
<i>Betula pubescens</i>	Downy Birch
<i>Campylopus introflexus</i>	Moss
<i>Cirsium palustre</i>	Marsh Thistle
<i>Cladonia floerkeana</i>	Matchstick Lichen, Devil's matchsticks
<i>Cladonia portentosa</i>	Branching Lichen
<i>Dactylis glomerata</i>	Cock's-foot
<i>Epilobium hirsutum</i>	Great Willowherb
<i>Erica tetralix</i>	Cross-leaved Heath
<i>Eriophorum angustifolium</i>	Common Cottongrass
<i>Eriophorum vaginatum</i>	Hare's-tail Cottongrass
<i>Filipendula ulmaria</i>	Meadowsweet
<i>Fraxinus excelsior</i>	Ash
<i>Hedera helix</i>	Ivy
<i>Holcus lanatus</i>	Yorkshire-fog
<i>Iris pseudacorus</i>	Yellow Iris
<i>Juncus acutiflorus</i>	Sharp-flowered Rush
<i>Juncus effusus</i>	Soft-rush
<i>Molinia caerulea</i>	Purple Moor-grass
<i>Myrica gale</i>	Bog-myrtle
<i>Narthecium ossifragum</i>	Bog Asphodel
<i>Phalaris arundinacea</i>	Reed Canary-grass

<i>Pinus sylvestris</i>	Scots Pine
<i>Potentilla anserina</i>	Silverweed
<i>Potentilla erecta</i>	Tormentil
<i>Pteridium aquilinum</i>	Bracken
<i>Rubus fruticosus</i> agg.	Blackberry
<i>Rumex acetosa</i>	Common Sorrel
<i>Salix cinerea</i> s.lat.	Grey Willow
<i>Salix cinerea</i> subsp. <i>oleifolia</i>	Rusty Willow
<i>Salix viminalis</i>	Osier
<i>Succisa pratensis</i>	Devil's-bit Scabious
<i>Trichophorum cespitosum</i>	Deergrass
<i>Typha latifolia</i>	Bulrush
<i>Ulex europaeus</i>	Gorse
<i>Urtica dioica</i>	Common Nettle
<i>Vicia sepium</i>	Bush Vetch

Fauna on site - English and Latin species name

Blackbird	<i>Turdus merula</i>
Chaffinch	<i>Fringilla coelebs</i>
Common buzzard	<i>Buteo buteo</i>
Irish Hare	<i>Lepus timidus hibernicus</i>
Meadow pipit	<i>Anthus pratensis</i>
Robin	<i>Erithacus rubecula</i>

Aerial Photograph showing location of the site

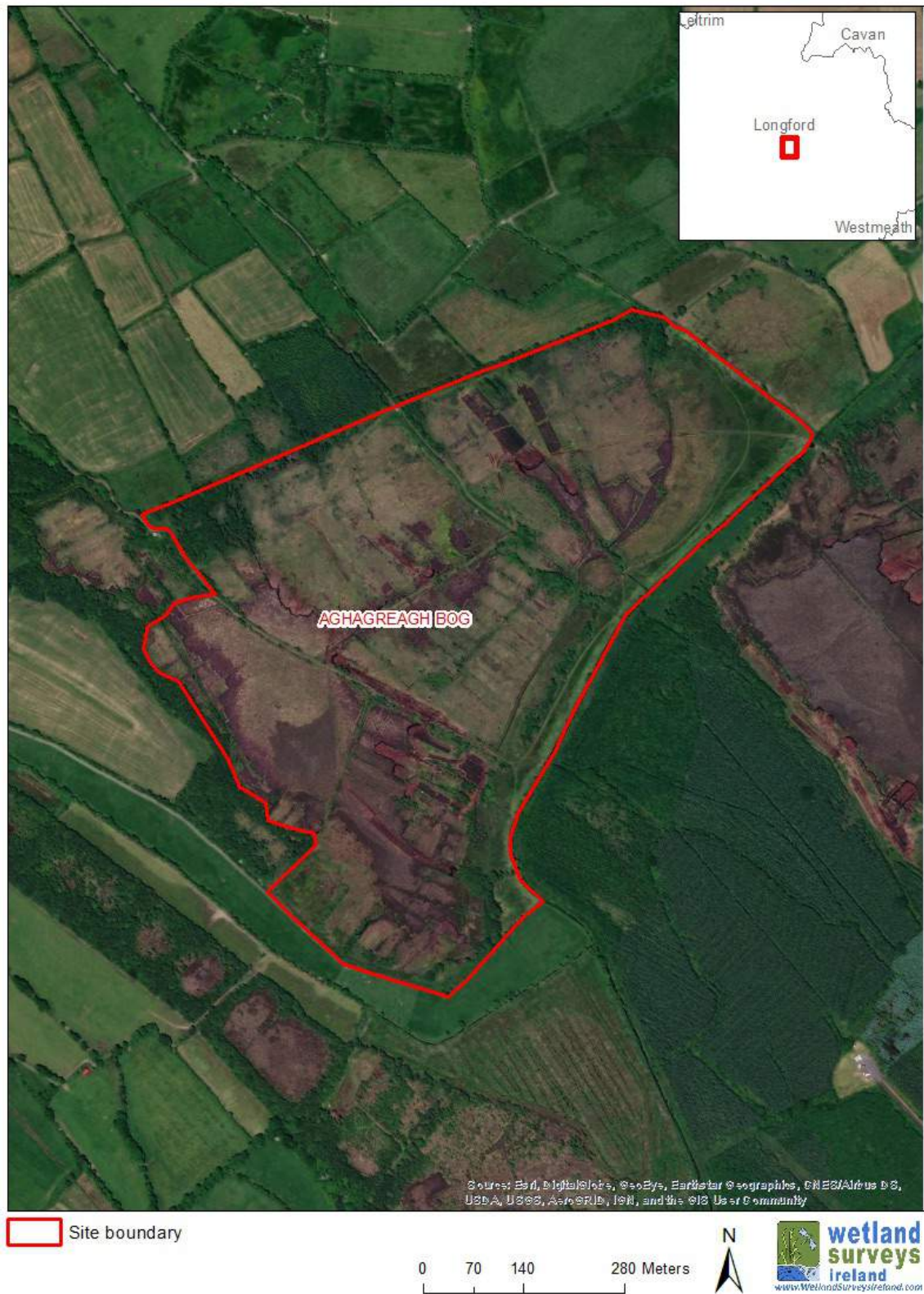


Figure 1. Aerial photograph showing the appearance and location of site shown by the site code and red outline (where appropriate). Aerial photograph copyright Ordnance Survey of Ireland.

GIS Habitat map of the site

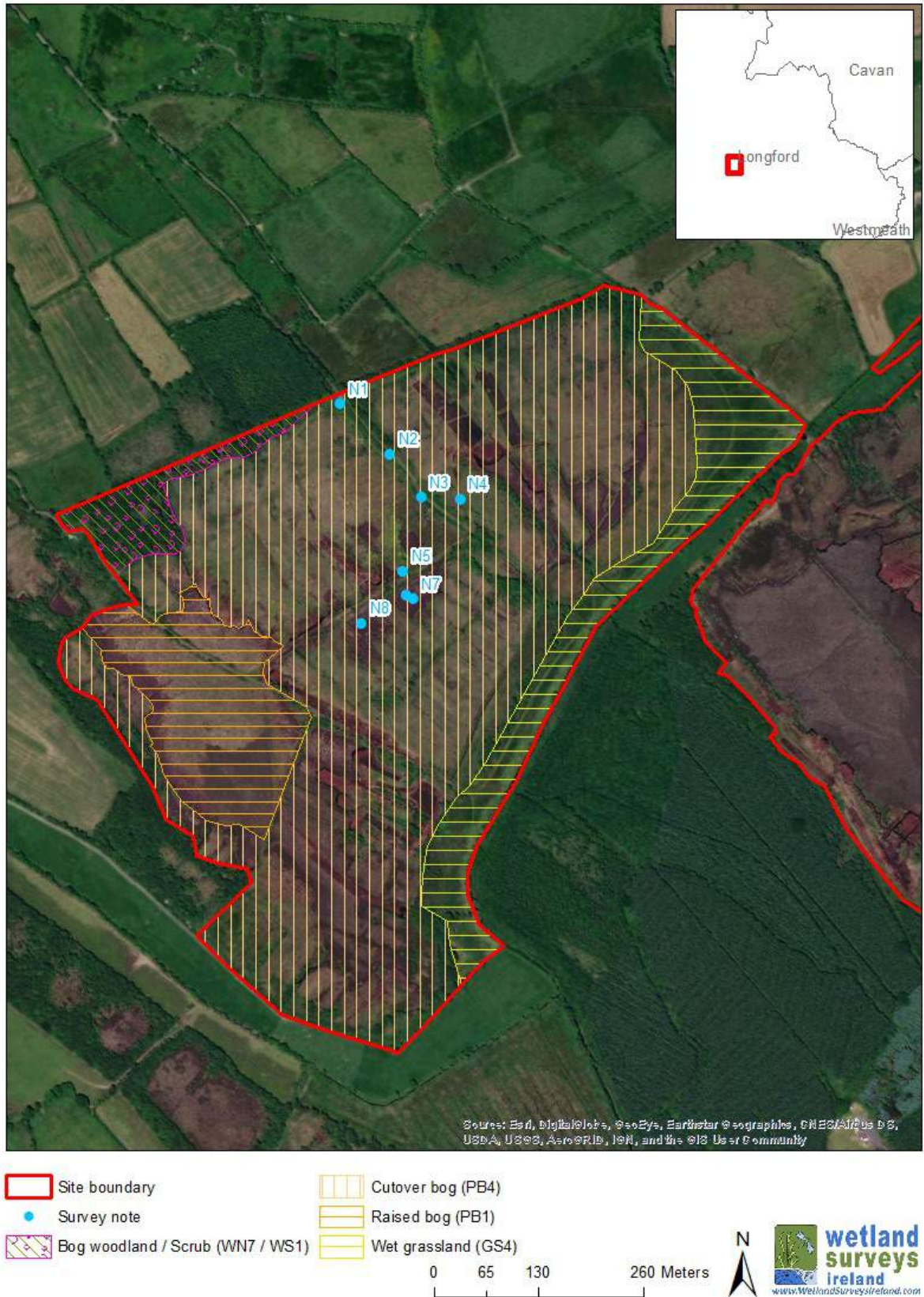


Figure 2. Habitat map of site, with site boundary shown in red. Base map copyright Ordnance Survey of Ireland.

Site Name: CLONBRONEY BOG WOODLAND

Site Code: LF135 **Area (ha):** 3.94 **Grid Ref:** 226505 279982 **County:** LF



Site designation(s):

Undesignated site

Surveyed by:

Peter Foss & Mary Catherine Gallagher

Date of wetland survey:

22/10/2019

Survey Code:

LFWS 2019

Site source information:

Limited site inspection only

Site previously mapped in GIS dataset

Site previously reported from literature

Wetland Present on the Site

YES

Conservation ranking after survey:

D Rating: Local conservation value (moderate value)

Townland:

CLONBRONEY

Solid Geology:

Visean basinal limestone

Subsoil type:

Cut

Substrate type:

Peat

Substrate stability:

Firm

River catchment:

Shannon Up

CORINE Habitats:

Coniferous forest

Site Location

This site forms part of the Killeen Lough Wetland Complex. This wet woodland area is located 3.9km east of Ballinalee, just south of Cloonfin Lough, Co. Longford.

Site Description and Wetland Habitats Recorded

This woodland was previously surveyed as part of NSNW and described as WN7 on cutover bog. Full site description is available in the main site database. During the current survey woodland was viewed from western edge. Additional species were recorded. No obvious sign of invasives. Some mature conifers occur at the western edge of the site.

Target Notes - (see *Habitat Map for location of Target Notes*)

No.	Category	Comment
N3	Habitat	NSNW site. Photos 6765-6766.
N2	Habitat	Immature conifer plantation on GS4.
N1	Flora	Small stand of mature spruce (>30m) at this end of woodland. Photo 6767.

Management Recommendations following survey

None

Future Survey Recommendations

None

Landowner Information Comments

None. Local landowner granted permission to access the site via his farmland to the south and east of the site.

Description of potential EU Habitats Directive Annex 1 habitats

None

Main Fossitt habitats on site

FW4 Drainage ditches

PB4 Cutover bog

WN7 Bog woodland

WS1 Scrub

EU Habitats Directive habitats on site

None noted

Fossitt habitats surrounding site

FS1 Reed and large sedge swamps

FW2 Depositing/lowland rivers

GS4 Wet grassland

PB4 Cutover bog

WD Highly modified/non-native woodland

WD4 Conifer plantation

WS1 Scrub

Landuse / Management Activity

Peat cutting (hand)

Frequency of use

2 Occasional (5-20%)

Impacting Activity (EU code and title)

J02.05 Modification of hydrographic functioning,

Intensity

B = medium

Impact

Unknown

Threats

B01 forest planting on open ground

H01.05 diffuse pollution to surface waters due to agricultural and forestry activities

J02.05 Modification of hydrographic functioning, general

Flora on site - Latin & English species name

<i>Alnus glutinosa</i>	Alder
<i>Angelica sylvestris</i>	Wild Angelica
<i>Betula pubescens</i>	Downy Birch
<i>Carex paniculata</i>	Greater Tussock-sedge
<i>Crataegus monogyna</i>	Hawthorn
<i>Filipendula ulmaria</i>	Meadowsweet
<i>Hedera helix</i>	Ivy
<i>Picea sitchensis</i>	Sitka Spruce
<i>Salix cinerea subsp. cinerea</i>	Grey Willow
<i>Salix cinerea subsp. oleifolia</i>	Rusty Willow

Fauna on site - English and Latin species name

No faunal observations were made

Aerial Photograph showing location of the site



Figure 1. Aerial photograph showing the appearance and location of site shown by the site code and red outline (where appropriate). Aerial photograph copyright Ordnance Survey of Ireland.

GIS Habitat map of the site

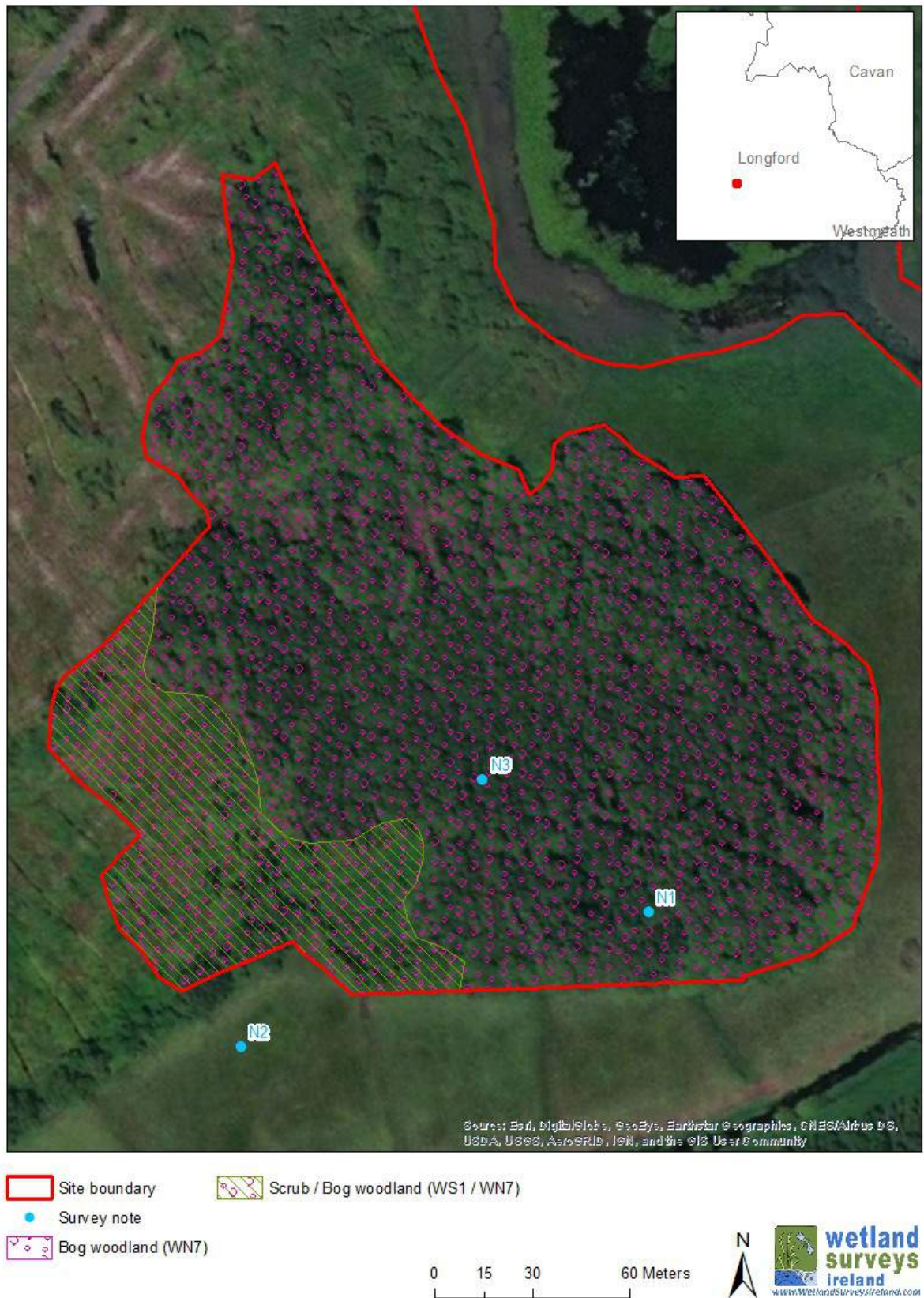


Figure 2. Habitat map of site, with site boundary shown in red. Base map copyright Ordnance Survey of Ireland.

Site Name: CLOONFIN LOUGH

Site Code: LF136 **Area (ha):** 4.87 **Grid Ref:** 226581 280222 **County:** LF



Site designation(s):

Undesignated site

Surveyed by:

Peter Foss & Mary Catherine Gallagher

Date of wetland survey:

22/10/2019

Survey Code:

LFWS 2019

Site source information:

Detailed Wetland Survey undertaken
Site previously reported from literature

Wetland Present on the Site

YES

Conservation ranking after survey:

D Rating: Local conservation value (moderate value)

Townland:

CLOONBRONEY

Solid Geology:

Visean basinal limestone

Subsoil type:

Water

Substrate type:

Mineral Soil
Peat

Substrate stability:

Soft Ground

River catchment:

Shannon Upr

CORINE Habitats:

Coniferous forest

Site Location

This site forms part of the Killeen Lough Wetland Complex. The small lough is located 3.9km east of Ballinalee, Co. Longford.

Site Description and Wetland Habitats Recorded

Large area of reed swamp adjoining the Camlin River. Dominated by Phragmites which surrounds open area of water. Not possible to access open water area as Reed swamp flooded during survey. Reed swamp grades into area increasingly dominated by Filipendula and coarse wetland grassland. Wet grassland areas in south has recently been planted with spruce with edge planting of alder. Scattered small willow scrub areas occur within reed swamp.

Target Notes - (see Habitat Map for location of Target Notes)

No.	Category	Comment
N1	General	Area of open water with reeds surrounding. Adjoining area gets much wetter underfoot.

Management Recommendations following survey

None

Future Survey Recommendations

None

Landowner Information Comments

None. Local landowner granted permission to access the site via his farmland to the south and east of the site. High river and lake water levels limited access to the reed swamp and lake area.

Description of potential EU Habitats Directive Annex 1 habitats

None

Main Fossitt habitats on site

FL Lakes & Ponds

FL4 Mesotrophic lakes

FS Swamps

FS1 Reed and large sedge swamps

FW2 Depositing/lowland rivers

GS4 Wet grassland

WS Scrub/transitional woodland

WS1 Scrub

Fossitt habitats surrounding site

GS4 Wet grassland

PB4 Cutover bog

WS1 Scrub

WS2 Immature woodland

EU Habitats Directive habitats on site

None noted

Landuse / Management Activity

Forestry

Frequency of use

2 Occasional (5-20%)

Impacting Activity (EU code and title)

B01 forest planting on open ground

H01.05 diffuse pollution to surface waters due to

Intensity

B = medium

D = unknown

Impact

- 1 = reparable negative influence

Unknown

Threats

H01.05 diffuse pollution to surface waters due to agricultural and forestry activities

Flora on site - Latin & English species name

Agrostis stolonifera

Creeping Bent

Caltha palustris

Marsh-marigold

<i>Carex disticha</i>	Brown Sedge
<i>Carex paniculata</i>	Greater Tussock-sedge
<i>Carex sp.</i>	Sedge
<i>Deschampsia cespitosa</i>	Tufted Hair-grass
<i>Filipendula ulmaria</i>	Meadowsweet
<i>Galium palustre</i>	Marsh-bedstraw
<i>Juncus effusus</i>	Soft-rush
<i>Lemna minor</i>	Common Duckweed
<i>Mentha aquatica</i>	Water Mint
<i>Nymphaea alba</i>	White Water-lily
<i>Persicaria amphibia</i>	Amphibious Bistort
<i>Phalaris arundinacea</i>	Reed Canary-grass
<i>Phragmites australis</i>	Common Reed
<i>Ranunculus lingua</i>	Greater Spearwort
<i>Ranunculus repens</i>	Creeping Buttercup
<i>Rumex acetosa</i>	Common Sorrel
<i>Rumex crispus</i>	Curled dock
<i>Schedonorus arundinaceus</i>	Tall Fescue
<i>Schoenoplectus lacustris</i>	Common Club-rush
<i>Sparganium erectum</i>	Branched Bur-reed
<i>Stellaria palustris</i>	Marsh Stitchwort
<i>Typha latifolia</i>	Bulrush

Fauna on site - English and Latin species name

Grey Heron	<i>Ardea cinerea</i>
Mute Swan	<i>Cygnus olor</i>

Aerial Photograph showing location of the site

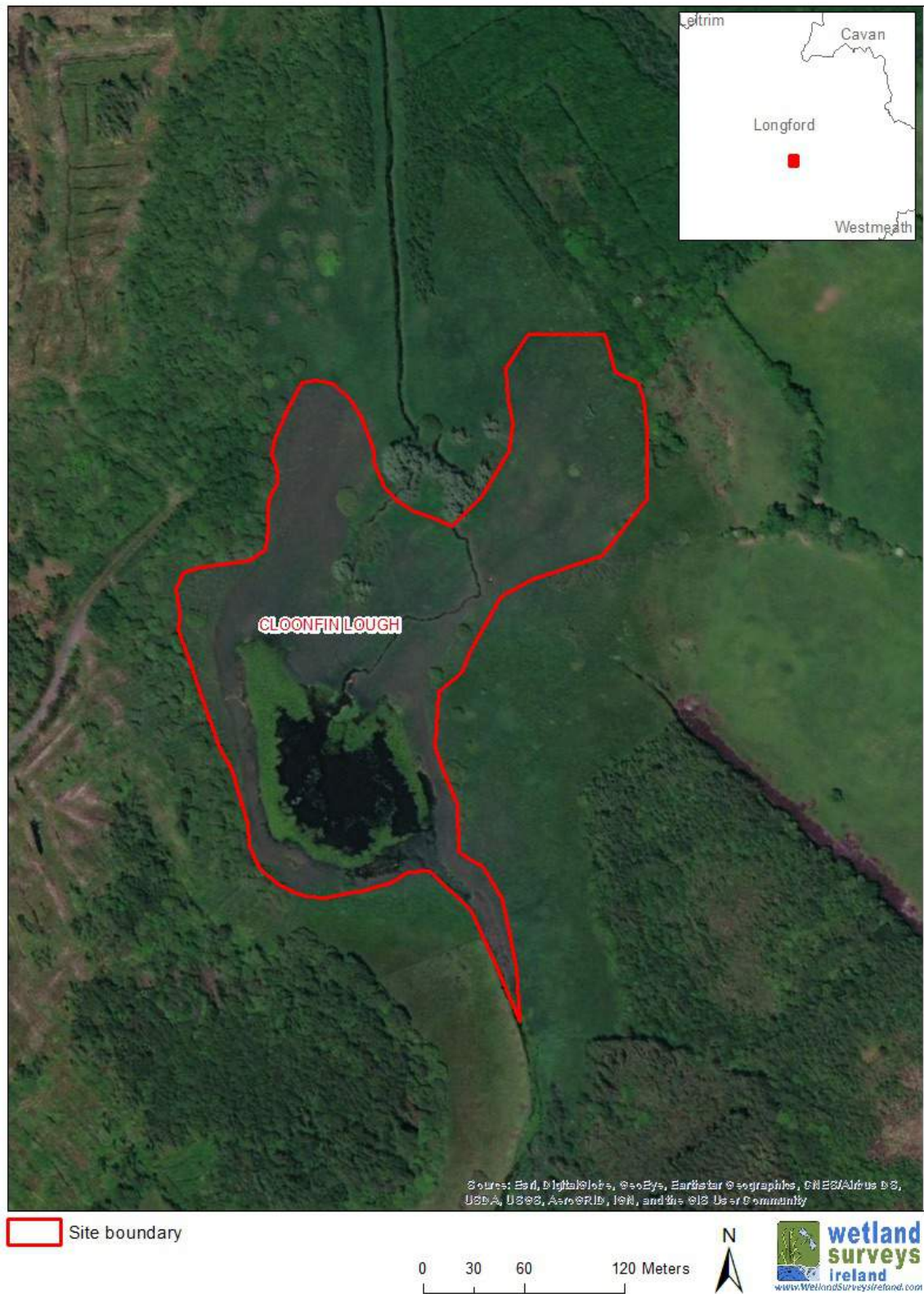


Figure 1. Aerial photograph showing the appearance and location of site shown by the site code and red outline (where appropriate). Aerial photograph copyright Ordnance Survey of Ireland.

GIS Habitat map of the site

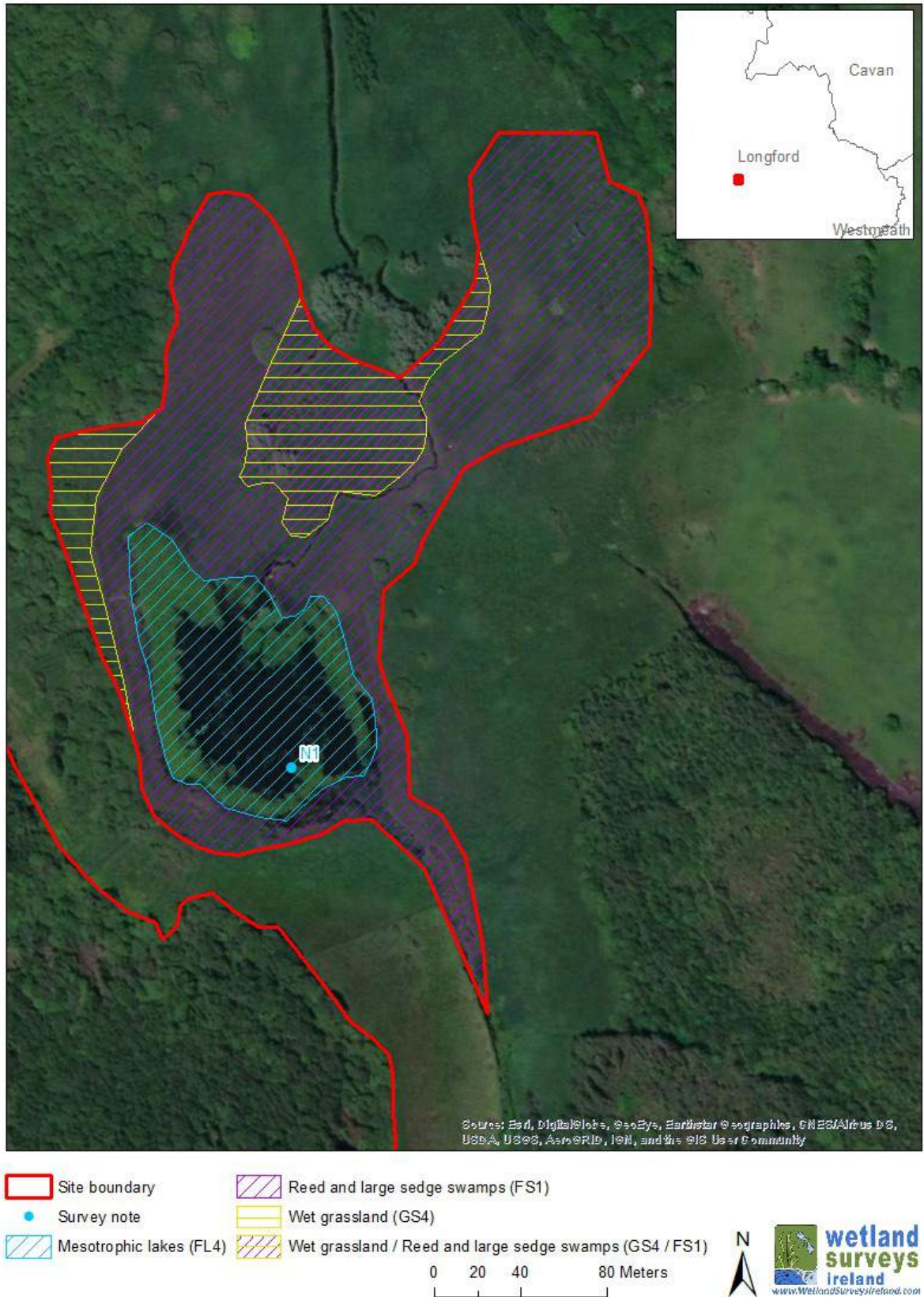


Figure 2. Habitat map of site, with site boundary shown in red. Base map copyright Ordnance Survey of Ireland.

Site Name: KNOCKMOODY BOG

Site Code: LF137 **Area (ha):** 12.39 **Grid Ref:** 225372 281139 **County:** LF



Site designation(s):

Undesignated site

Surveyed by:

Peter Foss & Mary Catherine Gallagher

Date of wetland survey:

21/10/2019

Survey Code:

LFWS 2019

Site source information:

Detailed Wetland Survey undertaken
Site previously reported from literature

Wetland Present on the Site

YES

Conservation ranking after survey:

D Rating: Local conservation value (moderate value)

Townland:

KNOCKMOODY

Solid Geology:

Visean basinal limestone

Subsoil type:

Cut

Substrate type:

Peat

Substrate stability:

Soft Ground

River catchment:

Shannon Up

CORINE Habitats:

Transitional woodland scrub

Site Location

This site forms part of the Killeen Lough Wetland Complex. The cutover bog site is located 2.7km east north east of Ballinalee, Co. Longford.

Site Description and Wetland Habitats Recorded

Area of cutover bog with raised drier banks and wetter hollows. Scattered birch and pine trees grow through the site with a few clumps of Rhododendron, attaining 2 m in height. Hand cut in the past. Wetter hollows contain small patches of Sphagnum dominated bog communities. Surrounded by scrub which grades into non annex bog birch woodland. No evidence of recent peat cutting on site.

Target Notes - (see Habitat Map for location of Target Notes)

No.	Category	Comment
N1	Invasive	Scrub on old cutover. Himalayan Balsam present. Photos 6613-6614.
N2	Invasive	Extensive stands of Himalayan Balsam along river. Photos 6615-6616.
N3	Fauna	Deer tracks crossing drain.
N6	Habitat	Cutover bog with drains running through. Sphagnum present in wet drains. Molinia, Calluna and Erica dominant. Cladonia present. Firm underfoot. Photos 6617-6622.
N4	Invasive	Rhododendron.
N5	General	Animal track across site.

Management Recommendations following survey

Remove Invasives, Rhododendron on cutover bog and Himalayan balsam on stream to the north of the bog area.

Future Survey Recommendations

None. Possible education value, with easy access and diverse range of habitats.

Landowner Information Comments

None. Site accessed via old turbary/forestry road to the north.

Description of potential EU Habitats Directive Annex 1 habitats

None

Main Fossitt habitats on site

FW4 Drainage ditches

PB4 Cutover bog

WN7 Bog woodland

WS1 Scrub

Fossitt habitats surrounding site

BL3 Buildings and artificial surfaces

FW2 Depositing/lowland rivers

GA1 Improved agricultural grassland

GS4 Wet grassland

WD4 Conifer plantation

WN7 Bog woodland

WS1 Scrub

EU Habitats Directive habitats on site

None noted

Landuse / Management Activity**Frequency of use**

Peat cutting (hand)

4 Dominant (>50%)

Impacting Activity (EU code and title)J02.05 Modification of hydrographic functioning,
C01.03 Peat extraction**Intensity**A = high
A = high**Impact**- 1 = reparable negative influence
- 2 = irreparable negative influence**Threats**

B01 forest planting on open ground

I01 invasive non-native species

J02.05 Modification of hydrographic functioning, general

Flora on site - Latin & English species name

<i>Betula pubescens</i>	Downy Birch
<i>Calluna vulgaris</i>	Ling Heather
<i>Cladonia portentosa</i>	Branching Lichen
<i>Crataegus monogyna</i>	Hawthorn
<i>Cytisus scoparius</i>	Broom
<i>Drosera rotundifolia</i>	Round-leaved Sundew
<i>Erica tetralix</i>	Cross-leaved Heath
<i>Eriophorum angustifolium</i>	Common Cottongrass
<i>Eriophorum vaginatum</i>	Hare's-tail Cottongrass
<i>Fraxinus excelsior</i>	Ash
<i>Hedera helix</i>	Ivy
<i>Holcus lanatus</i>	Yorkshire-fog
<i>Impatiens glandulifera</i>	Indian Balsam
<i>Juncus effusus</i>	Soft-rush
<i>Molinia caerulea</i>	Purple Moor-grass
<i>Myrica gale</i>	Bog-myrtle
<i>Pinus sylvestris</i>	Scots Pine
<i>Pteridium aquilinum</i>	Bracken
<i>Quercus sp.</i>	Oak
<i>Rhododendron ponticum</i>	Rhododendron
<i>Rhynchospora alba</i>	White Beak-sedge
<i>Rubus fruticosus agg.</i>	Blackberry
<i>Salix cinerea subsp. oleifolia</i>	Rusty Willow
<i>Sphagnum capillifolium</i>	Acute-leaved Bog Moss
<i>Sphagnum cuspidatum</i>	Feathery Bog Moss
<i>Sphagnum magellanicum</i>	Magellan's Bog Moss
<i>Sphagnum palustre</i>	Blunt-leaved Bog Moss
<i>Sphagnum papillosum</i>	Papillose Bog Moss
<i>Sphagnum tenellum</i>	Soft Bog Moss
<i>Trichophorum cespitosum</i>	Deergrass
<i>Ulex europaeus</i>	Gorse

Fauna on site - English and Latin species name

Blue tit	<i>Cyanistes caeruleus</i>
Chaffinch	<i>Fringilla coelebs</i>
Deer tracks	
Four-spotted Chaser Dragonfly	<i>Libellula quadrimaculata</i>

Hooded crow

Corvus cornix

Robin

Erithacus rubecula

Aerial Photograph showing location of the site



Figure 1. Aerial photograph showing the appearance and location of site shown by the site code and red outline (where appropriate). Aerial photograph copyright Ordnance Survey of Ireland.

GIS Habitat map of the site

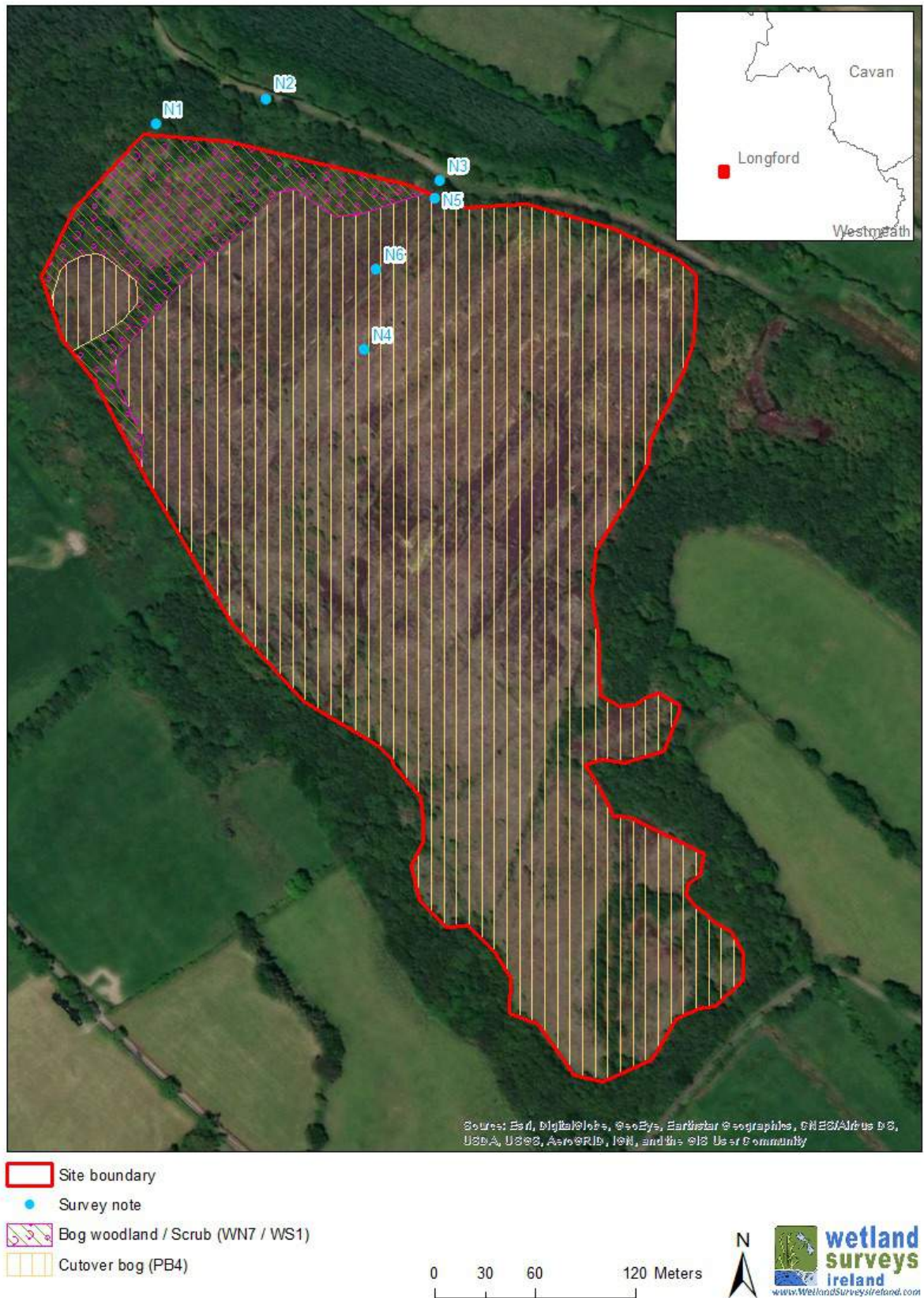


Figure 2. Habitat map of site, with site boundary shown in red. Base map copyright Ordnance Survey of Ireland.

Site Name: CURRYGRANE WET WOODLAND

Site Code: LF182 **Area (ha):** 6.88 **Grid Ref:** 223380 278150 **County:** LF



Site designation(s):

Undesignated site

Surveyed by:

Peter Foss & Mary Catherine Gallagher

Date of wetland survey:

22/10/2019

Survey Code:

LFWS 2019

Site source information:

Limited site inspection only

Site previously mapped in GIS dataset

Site previously reported from literature

Wetland Present on the Site

YES

Conservation ranking after survey:

D Rating: Local conservation value (moderate value)

Townland:

CURRYGRANE

Currygrange

Solid Geology:

Visean basinal limestone

Subsoil type:

Cut

Substrate type:

Mineral Soil

Substrate stability:

Firm

River catchment:

Shannon Upr

CORINE Habitats:

Water bodies

Site Location

This wet woodland area is located 2.8km south south east of Ballinalee, and occurs around the north western edge of Currygrane Lough, Co. Longford.

Site Description and Wetland Habitats Recorded

This woodland was previously surveyed as part of NSNW and listed as WN6. Full site description is available in the main database. During the current survey woodland was viewed from eastern lake edge. Some additional species were recorded. No obvious sign of invasives near lakeshore. Woodland continues beyond NSNW site boundary along lake edge to south.

Target Notes - (see *Habitat Map for location of Target Notes*)

No.	Category	Comment
N1	General	Lake with reed swamp along edges. This grades into wet woodland WN6, as previously described by NSNW along the western edge. Woodland also occurs to north and south but to a lesser extent.

Management Recommendations following survey

Remove Rhododendron from wet woodland area.

Future Survey Recommendations

Adjacent lake is an iWebs site so presume bird surveys are ongoing and may include species utilising the woodland.

Landowner Information Comments

None. Site viewed from a distance only. Site previously surveyed by NSNW. Access not possible due to high water levels in woodland.

Description of potential EU Habitats Directive Annex 1 habitats

None

Main Fossitt habitats on site

FW4 Drainage ditches

WN6 Wet willow-alder-ash woodland

EU Habitats Directive habitats on site

None noted

Fossitt habitats surrounding site

BL3 Buildings and artificial surfaces

FL Lakes & Ponds

GA1 Improved agricultural grassland

GS4 Wet grassland

WL1 Hedgerows

WS1 Scrub

Landuse / Management Activity

Grazing - cattle

Frequency of use

2 Occasional (5-20%)

Impacting Activity (EU code and title)

I01 invasive non-native species

J02.05 Modification of hydrographic functioning,

A04.02 non intensive grazing

Intensity

A = high

B = medium

C = low

Impact

- 1 = reparable negative influence

- 1 = reparable negative influence

- 1 = reparable negative influence

Threats

I01 invasive non-native species

J02.05 Modification of hydrographic functioning, general

Flora on site - Latin & English species name

Agrostis stolonifera

Creeping Bent

Alnus glutinosa

Alder

Betula pubescens

Downy Birch

Dryopteris carthusiana

Narrow Buckler-fern

<i>Dryopteris dilatata</i>	Broad Buckler-fern
<i>Oxalis acetosella</i>	Wood-sorrel
<i>Picea sp.</i>	Spruce
<i>Quercus sp.</i>	Oak
<i>Ranunculus repens</i>	Creeping Buttercup
<i>Rhododendron ponticum</i>	Rhododendron
<i>Rubus fruticosus agg.</i>	Blackberry
<i>Salix cinerea subsp. oleifolia</i>	Rusty Willow
<i>Stellaria graminea</i>	Lesser Stitchwort

Fauna on site - English and Latin species name

No faunal observations were made

Aerial Photograph showing location of the site

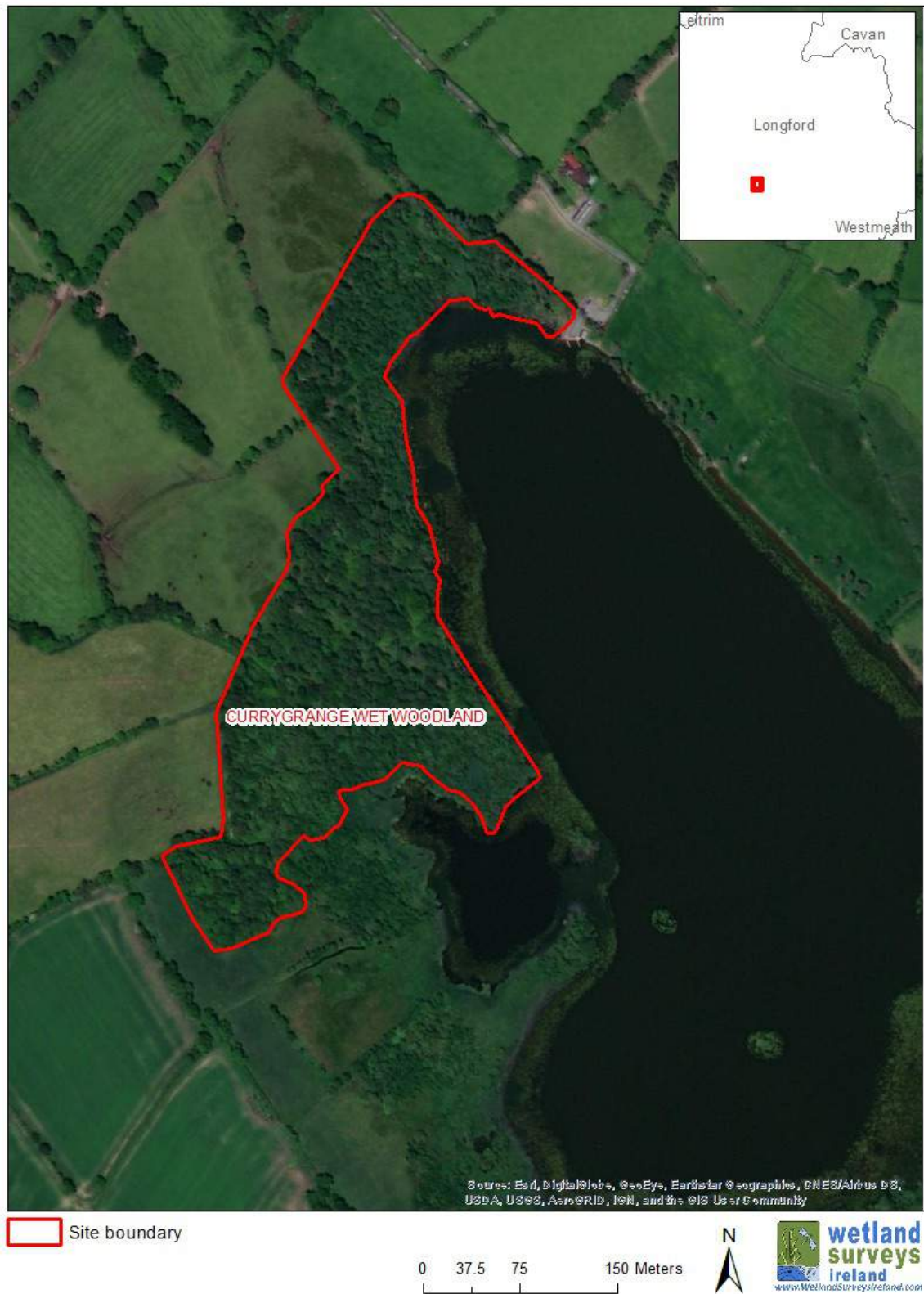


Figure 1. Aerial photograph showing the appearance and location of site shown by the site code and red outline (where appropriate). Aerial photograph copyright Ordnance Survey of Ireland.

GIS Habitat map of the site



Figure 2. Habitat map of site, with site boundary shown in red. Base map copyright Ordnance Survey of Ireland.

Site Name: CURRYGRANE LOUGH

Site Code: LF183 **Area (ha):** 29.90 **Grid Ref:** 223645 278005 **County:** LF



Site designation(s):

Undesignated site

Surveyed by:

Peter Foss & Mary Catherine Gallagher

Date of wetland survey:

22/10/2019

Survey Code:

LFWS 2019

Site source information:

Detailed Wetland Survey undertaken
Site previously reported from literature

Wetland Present on the Site

YES

Conservation ranking after survey:

C Rating: Local conservation value (high value)

Townland:

CURRYGRANE

Solid Geology:

Visean basinal limestone

Subsoil type:

Water

Substrate type:

Made Ground
Mineral Soil

Substrate stability:

Firm

River catchment:

Shannon UpR

CORINE Habitats:

Water bodies

Site Location

Currygrane Lough is located 2.8km south south east of Ballinalee, Co. Longford.

Site Description and Wetland Habitats Recorded

Lake is surrounded by reed swamp with the exception of a section of the shoreline in the north eastern part of the lake. This area adjoins car park beside fishing lodge. Bank has been reinforced with rock armature for fishing. Fringing reed swamp and wet woodland is present which is composed of alder, willow and birch occurs around the western and southern shore. The lake is utilised by a number of aquatic birds. Fishing lake.

Target Notes - (see Habitat Map for location of Target Notes)

No.	Category	Comment
N1	General	Currygrane lake fishing lodge car park. Eastern side of lake has access from fishing lodge. With boat house, pontoon, slipway and hard core surface for fishing. Some reed swamp appears to have been cleared to create hard core surface.
N2	Habitat	BL3 hard core surface for fishing. Area of disturbed ground with trees recently cleared. Includes rubble, likely from slipway construction.
N3	Habitat	Reed swamp FS1. Abundant bird life heard. Species seen include Mute Swan, Cormorant, Great Crested Grebe, Goose, and Pied Wagtail.

Management Recommendations following survey

Some Zebra mussel shells were observed on the lakeshore by boat house. Control of this aquatic invasive recommended. Information signs to promote biodiversity vale of the site might be considered. Found some spent gun shells in lake. Possible hunting /shooting also occurring on lake?

Future Survey Recommendations

Site is an iWebs site so presume bird surveys are ongoing.

Landowner Information Comments

Currygrane Fishing Lodge (Noel Brady?). Following phone call, permission to access site was obtained from owner of lodge. LD5940 - Currygrane, Ballinalee, Co. Longford, N39 P520 & LD10219 - Currygrane Fishing Lodge, Currygrane, Ballinalee, Co. Longford, N39 E425.

Description of potential EU Habitats Directive Annex 1 habitats

None

Main Fossitt habitats on site

BL1 Stone walls and other stonework
 BL3 Buildings and artificial surfaces
 FL Lakes & Ponds
 FL4 Mesotrophic lakes
 FS Swamps
 FS1 Reed and large sedge swamps
 GS Semi-Natural Grassland
 GS2 Dry meadows and grassy verges
 WL2 Treelines
 WN Semi-natural woodland
 WN6 Wet willow-alder-ash woodland
 WS Scrub/transitional woodland
 WS1 Scrub

EU Habitats Directive habitats on site

None noted

Fossitt habitats surrounding site

GA1 Improved agricultural grassland
 GS4 Wet grassland
 WL1 Hedgerows
 WN6 Wet willow-alder-ash woodland

WS1 Scrub

Landuse / Management Activity

Fishing

Frequency of use

4 Dominant (>50%)

Impacting Activity (EU code and title)

F02.03 Leisure fishing

Intensity

B = medium

Impact

Unknown

I01 invasive non-native species

D = unknown

Unknown

Threats

F03.01 Hunting

I01 invasive non-native species

Flora on site - Latin & English species name

<i>Agrostis stolonifera</i>	Creeping Bent
<i>Alnus glutinosa</i>	Alder
<i>Angelica sylvestris</i>	Wild Angelica
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
<i>Apium inundatum</i>	Lesser Marshwort
<i>Betula pubescens</i>	Downy Birch
<i>Caltha palustris</i>	Marsh-marigold
<i>Carex rostrata</i>	Bottle Sedge
<i>Cirsium arvense</i>	Creeping Thistle
<i>Cirsium palustre</i>	Marsh Thistle
<i>Epilobium hirsutum</i>	Great Willowherb
<i>Fagus sylvatica</i>	Beech
<i>Filipendula ulmaria</i>	Meadowsweet
<i>Fraxinus excelsior</i>	Ash
<i>Iris pseudacorus</i>	Yellow Iris
<i>Juncus articulatus</i>	Jointed Rush
<i>Lemna minor</i>	Common Duckweed
<i>Mentha aquatica</i>	Heath Wood-rush
<i>Nymphaea alba</i>	White Water-lily
<i>Phalaris arundinacea</i>	Reed Canary-grass
<i>Phragmites australis</i>	Common Reed
<i>Pinus sylvestris</i>	Scots Pine
<i>Quercus sp.</i>	Oak
<i>Ranunculus repens</i>	Creeping Buttercup
<i>Rosa canina</i>	Dog-rose
<i>Rubus fruticosus agg.</i>	Blackberry
<i>Salix cinerea subsp. oleifolia</i>	Rusty Willow
<i>Sambucus nigra</i>	Elder
<i>Schoenoplectus lacustris</i>	Common Club-rush
<i>Senecio aquaticus</i>	Marsh Ragwort
<i>Solanum dulcamara</i>	Bittersweet
<i>Sparganium emersum</i>	Unbranched Bur-reed
<i>Sparganium erectum</i>	Branched Bur-reed
<i>Typha latifolia</i>	Bulrush

<i>Urtica dioica</i>	Common Nettle
<i>Veronica beccabunga</i>	Brooklime
<i>Veronica scutellata</i>	Marsh Speedwell

Fauna on site - English and Latin species name

Black-headed Gull	<i>Chroicocephalus ridibundus</i>
Cormorant	<i>Phalacrocorax carbo</i>
Domestic goose	
Great Crested Grebe	<i>Podiceps cristatus</i>
Great Pond snail	<i>Lymnaea stagnalis</i>
Grey wagtail	<i>Motacilla cinerea</i>
Pied wagtail	<i>Motacilla alba yarrellii</i>
Zebra mussel	<i>Dreissena polymorpha</i>

Aerial Photograph showing location of the site



Figure 1. Aerial photograph showing the appearance and location of site shown by the site code and red outline (where appropriate). Aerial photograph copyright Ordnance Survey of Ireland.

GIS Habitat map of the site



Figure 2. Habitat map of site, with site boundary shown in red. Base map copyright Ordnance Survey of Ireland.

Site Name: CLOONFIN SOUTH

Site Code: LF186 **Area (ha):** 12.15 **Grid Ref:** 227799 279526 **County:** LF



Site designation(s):

Undesignated site

Surveyed by:

Peter Foss & Mary Catherine Gallagher

Date of wetland survey:

21/10/2019

Survey Code:

LFWS 2019

Site source information:

Detailed Wetland Survey undertaken
Site previously reported from literature

Wetland Present on the Site

YES

Conservation ranking after survey:

D Rating: Local conservation value (moderate value)

Townland:

CLOONFIN

Solid Geology:

Visean basinal limestone

Subsoil type:

Cut

Substrate type:

Peat

Substrate stability:

Soft Ground

River catchment:

Shannon Up

CORINE Habitats:

Pastures

Site Location

This site forms part of the Killeen Lough Wetland Complex. The small bog site is located 5.2km south east of Ballinalee, at the southern end of Killeen Bog, Co. Longford.

Site Description and Wetland Habitats Recorded

Small cutover bog in landscape depression, which has not been cut in the recent past and shows regeneration of heather and Molina dominated communities with stand of birch and some dense bracken. Surrounded by scrub, non annex birch woodland and dense bracken especially in east. Occasional wet depressions occur throughout site, as do some raised peat hags.

Target Notes - (see Habitat Map for location of Target Notes)

No.	Category	Comment
N3	Habitat	Cutover bog, firm under foot. Molinia dominated with abundant Cladonia. Dense bracken occurs adjoining roadside to the east. Scattered Birch trees common throughout. Significant slope down from road to south into the site, with drainage ditch occurring
N1	Fauna	Buzzard heard.
N2	General	Photos 6680 – 6685.

Management Recommendations following survey

None

Future Survey Recommendations

None

Landowner Information Comments

None. Site viewed and accessed from public road to the south and north.

Description of potential EU Habitats Directive Annex 1 habitats

None

Main Fossitt habitats on site

FW4 Drainage ditches

GS Semi-Natural Grassland

GS4 Wet grassland

HD1 Dense bracken

PB4 Cutover bog

WN7 Bog woodland

WS1 Scrub

Fossitt habitats surrounding site

BL3 Buildings and artificial surfaces

GA1 Improved agricultural grassland

GS4 Wet grassland

WL1 Hedgerows

WS1 Scrub

EU Habitats Directive habitats on site

None noted

Landuse / Management Activity

Peat cutting (hand)

Frequency of use

4 Dominant (>50%)

Impacting Activity (EU code and title)

C01.03.01 hand cutting of peat

J02.05 Modification of hydrographic functioning,

Intensity

A = high

A = high

Impact

- 2 = irreparable negative influence

- 2 = irreparable negative influence

Threats

B01 forest planting on open ground

J02.05 Modification of hydrographic functioning, general

Flora on site - Latin & English species name

<i>Betula pubescens</i>	Downy Birch
<i>Calluna vulgaris</i>	Ling Heather
<i>Carex paniculata</i>	Greater Tussock-sedge
<i>Cladonia portentosa</i>	Branching Lichen
<i>Erica tetralix</i>	Cross-leaved Heath
<i>Eriophorum angustifolium</i>	Common Cottongrass
<i>Eriophorum vaginatum</i>	Hare's-tail Cottongrass
<i>Filipendula ulmaria</i>	Meadowsweet
<i>Hypnum jutlandicum</i>	Moss
<i>Molinia caerulea</i>	Purple Moor-grass
<i>Narthecium ossifragum</i>	Water-cress
<i>Pinus sylvestris</i>	Scots Pine
<i>Potentilla erecta</i>	Tormentil
<i>Pteridium aquilinum</i>	Bracken
<i>Quercus sp.</i>	Oak
<i>Rubus fruticosus agg.</i>	Blackberry
<i>Salix aurita</i>	Eared Willow
<i>Salix cinerea subsp. oleifolia</i>	Rusty Willow
<i>Sphagnum capillifolium</i>	Acute-leaved Bog Moss
<i>Sphagnum cuspidatum</i>	Feathery Bog Moss
<i>Sphagnum palustre</i>	Blunt-leaved Bog Moss
<i>Sphagnum papillosum</i>	Papillose Bog Moss
<i>Ulex europaeus</i>	Gorse
<i>Vaccinium myrtillus</i>	Bilberry

Fauna on site - English and Latin species name

Common buzzard	<i>Buteo buteo</i>
Wood pigeon	<i>Columba palumbus</i>

Aerial Photograph showing location of the site



Figure 1. Aerial photograph showing the appearance and location of site shown by the site code and red outline (where appropriate). Aerial photograph copyright Ordnance Survey of Ireland.

GIS Habitat map of the site

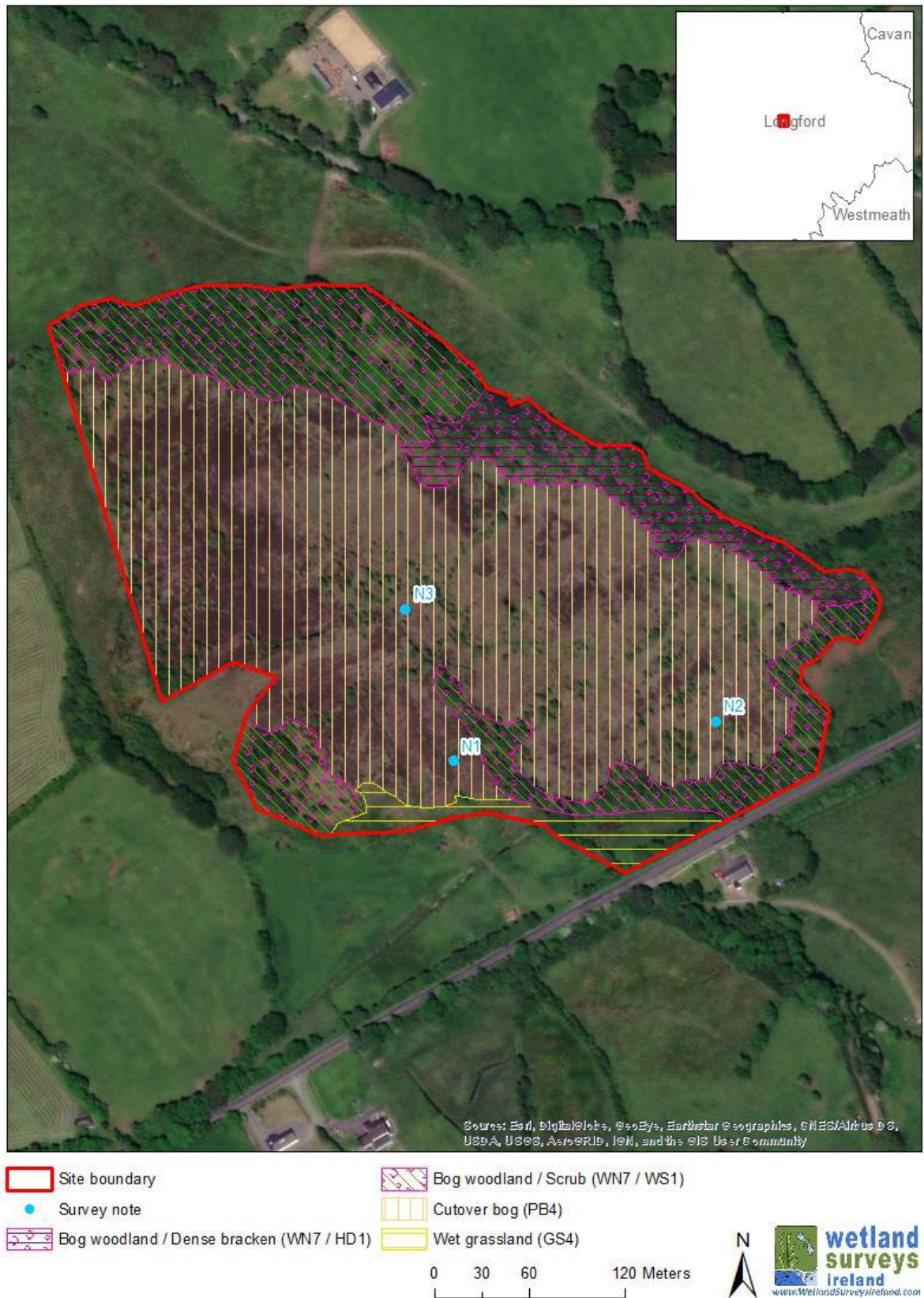


Figure 2. Habitat map of site, with site boundary shown in red. Base map copyright Ordnance Survey of Ireland.

Site Name: BALLYBRIEN WETLAND

Site Code: LF254 **Area (ha):** 2.33 **Grid Ref:** 230638 280490 **County:** LF



Site designation(s):

Undesignated site

Surveyed by:

Peter Foss & Mary Catherine Gallagher

Date of wetland survey:

23/10/2019

Survey Code:

LFWS 2019

Site source information:

Detailed Wetland Survey undertaken
Site previously reported from literature

Wetland Present on the Site

YES

Conservation ranking after survey:

E Rating: Local conservation value (low value)

Townland:

BALLYBRIEN

Solid Geology:

Visean basinal limestone

Subsoil type:

L

Substrate type:

Mineral Soil

Substrate stability:

Firm

River catchment:

Shannon Up

CORINE Habitats:

Pastures

Site Location

This wet area is located 2.6km west of Granard in Co. Longford.

Site Description and Wetland Habitats Recorded

Low lying semi improved wet grassland field periodically grazed by cattle. Bounded by drainage ditches. Surrounding fields are used for silage production and more intensive cattle grazing. Site viewed from a distance.

Target Notes - (see Habitat Map for location of Target Notes)

No.	Category	Comment
N1	General	Field slopes down to west and lower areas are wet grassland. Cattle grazed. Abundant Starlings. Juncus dominated. Likely not cut for silage. Surrounded by GA1 drainage ditch. Photos 6779-6787.

Management Recommendations following survey

None

Future Survey Recommendations

None

Landowner Information Comments

None. Site viewed from a distance and from adjacent farm lane to the north. Various cars passed to farm, but we were not challenged.

Description of potential EU Habitats Directive Annex 1 habitats

None

Main Fossitt habitats on site

FW4 Drainage ditches

GS4 Wet grassland

EU Habitats Directive habitats on site

None noted

Fossitt habitats surrounding site

BL3 Buildings and artificial surfaces

FW4 Drainage ditches

GA1 Improved agricultural grassland

WL1 Hedgerows

Landuse / Management Activity

Grazing - cattle

Frequency of use

3 Frequent (21-50%)

Impacting Activity (EU code and title)

A04.01.01 intensive cattle grazing

Intensity

C = low

Impact

- 1 = reparable negative influence

Threats

X No threats or pressures

Flora on site - Latin & English species name

<i>Acer pseudoplatanus</i>	Sycamore
<i>Agrostis stolonifera</i>	Creeping Bent
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
<i>Apium inundatum</i>	Lesser Marshwort
<i>Cirsium arvense</i>	Creeping Thistle
<i>Cirsium vulgare</i>	Spear Thistle
<i>Crataegus monogyna</i>	Hawthorn
<i>Dactylis glomerata</i>	Cock's-foot
<i>Fraxinus excelsior</i>	Ash
<i>Hedera helix</i>	Ivy
<i>Holcus lanatus</i>	Yorkshire-fog
<i>Juncus acutiflorus</i>	Sharp-flowered Rush

<i>Juncus effusus</i>	Soft-rush
<i>Lathyrus pratensis</i>	Meadow Vetchling
<i>Lemna minor</i>	Common Duckweed
<i>Nasturtium officinale</i>	Water-cress
<i>Poa annua</i>	Annual Meadow-grass
<i>Ranunculus repens</i>	Creeping Buttercup
<i>Rubus fruticosus agg.</i>	Blackberry
<i>Rumex sanguineus</i>	Wood dock
<i>Salix viminalis</i>	Osier
<i>Sambucus nigra</i>	Elder
<i>Scrophularia nodosa</i>	Common Figwort
<i>Stachys palustris</i>	Marsh Woundwort
<i>Typha latifolia</i>	Bulrush
<i>Urtica dioica</i>	Common Nettle
<i>Vicia sepium</i>	Bush Vetch

Fauna on site - English and Latin species name

Chaffinch	<i>Fringilla coelebs</i>
Jackdaw	<i>Corvus monedula</i>
Pied wagtail	<i>Motacilla alba yarrellii</i>
Robin	<i>Erithacus rubecula</i>
Rook	<i>Corvus frugilegus</i>
Starling	<i>Sturnus vulgaris</i>
Wood pigeon	<i>Columba palumbus</i>

Aerial Photograph showing location of the site



Figure 1. Aerial photograph showing the appearance and location of site shown by the site code and red outline (where appropriate). Aerial photograph copyright Ordnance Survey of Ireland.

GIS Habitat map of the site



Figure 2. Habitat map of site, with site boundary shown in red. Base map copyright Ordnance Survey of Ireland.

Site Name: KILLEEN POND (NORTH) - BALLIN LOUGH**Site Code:** LF283 **Area (ha):** 0.45 **Grid Ref:** 227138 281745 **County:** LF**Site designation(s):**

Undesignated site

Surveyed by:

Peter Foss & Mary Catherine Gallagher

Date of wetland survey:

23/10/2019

Survey Code:

LFWS 2019

Site source information:

Detailed Wetland Survey undertaken

Site previously reported from literature

Wetland Present on the Site

YES

Conservation ranking after survey:

C Rating: Local conservation value (high value)

Townland:

BALLINLOUGH

Solid Geology:

Visean basinal limestone

Subsoil type:Mineral Soil
Peat**Substrate type:**Mineral Soil
Peat**Substrate stability:**

Firm

River catchment:

Shannon Upr

CORINE Habitats:

Transitional woodland scrub

Site Location

This site forms part of the Killeen Lough Wetland Complex. The small pond is located 5.4km east of Ballinalee, to the east of Killeen Bog, and south of Ballin Lough, Co. Longford.

Site Description and Wetland Habitats Recorded

Small lake with dystrophic characteristics, which is connected to Ballin Lough via a 3 m open water channel. Lake surrounded by narrow fringe of Typha/Phragmites zone or willow scrub immediately adjacent to open water. Lake used as a fishing resource.

Target Notes - (see Habitat Map for location of Target Notes)

No.	Category	Comment
N1	Flora	Bright green colouration is Water Lillies.
N2	General	Photos 6829-6835.

Management Recommendations following survey

Used for fishing, as at Ballin Lough fishing stands required as lakeshore vegetation is showing signs of trampling at a number of locations.

Future Survey Recommendations

None

Landowner Information Comments

None. Site accessed via turbarry road to the south west.

Description of potential EU Habitats Directive Annex 1 habitats

None

Main Fossitt habitats on site

FL Lakes & Ponds

FL4 Mesotrophic lakes

FS Swamps

FS1 Reed and large sedge swamps

WN Semi-natural woodland

WN6 Wet willow-alder-ash woodland

WS1 Scrub

Fossitt habitats surrounding site

PB4 Cutover bog

WD Highly modified/non-native woodland

WS2 Immature woodland

EU Habitats Directive habitats on site

None noted

Landuse / Management Activity

Fishing

Frequency of use

4 Dominant (>50%)

Impacting Activity (EU code and title)

H01.05 diffuse pollution to surface waters due to

Intensity

D = unknown

Impact

Unknown

Threats

H01.05 diffuse pollution to surface waters due to agricultural and forestry activities

J02.05 Modification of hydrographic functioning, general

Flora on site - Latin & English species name

Agrostis stolonifera

Creeping Bent

Alisma plantago-aquatica

Water-plantain

Alnus glutinosa

Alder

<i>Angelica sylvestris</i>	Wild Angelica
<i>Calliergonella cuspidata</i>	Pointed Spear Moss
<i>Carex sp.</i>	Sedge
<i>Comarum palustre</i>	Marsh Cinquefoil
<i>Filipendula ulmaria</i>	Meadowsweet
<i>Galium palustre</i>	Marsh-bedstraw
<i>Lemna minor</i>	Common Duckweed
<i>Lythrum salicaria</i>	Purple-loosestrife
<i>Menyanthes trifoliata</i>	Bogbean
<i>Molinia caerulea</i>	Purple Moor-grass
<i>Myrica gale</i>	Bog-myrtle
<i>Nymphaea alba</i>	White Water-lily
<i>Oenanthe crocata</i>	Hemlock Water-dropwort
<i>Phragmites australis</i>	Common Reed
<i>Salix cinerea subsp. oleifolia</i>	Rusty Willow
<i>Schoenoplectus lacustris</i>	Common Club-rush
<i>Sparganium erectum</i>	Branched Bur-reed
<i>Typha latifolia</i>	Bulrush
<i>Vicia cracca</i>	Tufted Vetch

Fauna on site - English and Latin species name

Common frog

Rana temporaria

Aerial Photograph showing location of the site



Figure 1. Aerial photograph showing the appearance and location of site shown by the site code and red outline (where appropriate). Aerial photograph copyright Ordnance Survey of Ireland.

GIS Habitat map of the site



Figure 2. Habitat map of site, with site boundary shown in red. Base map copyright Ordnance Survey of Ireland.

Site Name: LISTRAGHEE LOUGH

Site Code: LF284 **Area (ha):** 8.50 **Grid Ref:** 224340 280084 **County:** LF



Site designation(s):

Undesignated site

Surveyed by:

Peter Foss & Mary Catherine Gallagher

Date of wetland survey:

22/10/2019

Survey Code:

LFWS 2019

Site source information:

Limited site inspection only

Site previously reported from literature

Wetland Present on the Site

YES

Conservation ranking after survey:

D Rating: Local conservation value (moderate value)

Townland:

BALLYREAGHAN
CLOONCOOSE
LISTRAGHEE

Solid Geology:

Visean basinal limestone

Subsoil type:

Cut

Substrate type:

Peat

Substrate stability:

Firm

River catchment:

Shannon Up

CORINE Habitats:

Transitional woodland scrub

Site Location

This site forms part of the Killeen Lough Wetland Complex. The small pond and cutover bog area is located 1.8km south east of Ballinalee, Co. Longford.

Site Description and Wetland Habitats Recorded

Small lake in landscape depression, surrounded by old cutover bog with *Molinia* grassland, birch wood areas and marginal treelines with ash, birch, and spuce. Narrow zone of wet grassland adjacent to birch woodland in east, grazed by cattle. Land rises sharply to the east.

Target Notes - (see Habitat Map for location of Target Notes)

No.	Category	Comment
N1	General	Bull in field.
N2	General	Small lake in hollow surrounded by treeline which grades into birch woodland to the north. An area of cut over bog occurs within this area. Grassland slopes down towards lake, wet grassland on flat land adjoining. Photos 6757-6759 and 6788-6791.

Management Recommendations following survey

None

Future Survey Recommendations

None

Landowner Information Comments

Owner is Frank (drives local school bus). Met both him and his wife (?). Requested access. Obtained access permission, but on his recommendation site only viewed from field to the east of site near farm, due to bull in field and access difficulties.

Description of potential EU Habitats Directive Annex 1 habitats

None

Main Fossitt habitats on site

FL Lakes & Ponds

FL4 Mesotrophic lakes

FS Swamps

FS1 Reed and large sedge swamps

FW4 Drainage ditches

GS4 Wet grassland

PB4 Cutover bog

WL2 Treelines

WN Semi-natural woodland

WN7 Bog woodland

WS1 Scrub

Fossitt habitats surrounding site

BL3 Buildings and artificial surfaces

GA1 Improved agricultural grassland

GS4 Wet grassland

WL1 Hedgerows

EU Habitats Directive habitats on site

None noted

Landuse / Management Activity

None

Frequency of use**Impacting Activity (EU code and title)**

C01.03.01 hand cutting of peat

J02.05 Modification of hydrographic functioning,

Intensity

A = high

B = medium

Impact

- 2 = irreparable negative influence

Unknown

Threats

H01 Pollution to surface waters (limnic & terrestrial)

H01.05 diffuse pollution to surface waters due to agricultural and forestry activities

J02.05 Modification of hydrographic functioning, general

Flora on site - Latin & English species name

<i>Betula pubescens</i>	Downy Birch
<i>Calluna vulgaris</i>	Ling Heather
<i>Calluna vulgaris</i>	Ling Heather
<i>Crataegus monogyna</i>	Hawthorn
<i>Cupressus sp.</i>	Cypress
<i>Epilobium hirsutum</i>	Great Willowherb
<i>Epilobium hirsutum</i>	Great Willowherb
<i>Fraxinus excelsior</i>	Ash
<i>Hedera helix</i>	Ivy
<i>Ilex aquifolium</i>	Holly
<i>Juncus effusus</i>	Soft-rush
<i>Molinia caerulea</i>	Purple Moor-grass
<i>Molinia caerulea</i>	Purple Moor-grass
<i>Phragmites australis</i>	Common Reed
<i>Picea sitchensis</i>	Sitka Spruce
<i>Pinus sylvestris</i>	Scots Pine
<i>Prunus laurocerasus</i>	Cherry Laurel
<i>Quercus sp.</i>	Oak
<i>Rubus fruticosus agg.</i>	Blackberry
<i>Salix cinerea subsp. oleifolia</i>	Rusty Willow
<i>Ulex europaeus</i>	Gorse

Fauna on site - English and Latin species name

Bull in field

Robin *Erithacus rubecula*

Aerial Photograph showing location of the site



Figure 1. Aerial photograph showing the appearance and location of site shown by the site code and red outline (where appropriate). Aerial photograph copyright Ordnance Survey of Ireland.

GIS Habitat map of the site



Figure 2. Habitat map of site, with site boundary shown in red. Base map copyright Ordnance Survey of Ireland.

Site Name: BALLYREAGHAN QUARRY POND

Site Code: LF288 **Area (ha):** 2.99 **Grid Ref:** 224544 280641 **County:** LF



Site designation(s):

Undesignated site

Surveyed by:

Peter Foss & Mary Catherine Gallagher

Date of wetland survey:

22/10/2019

Survey Code:

LFWS 2019

Site source information:

Detailed Wetland Survey undertaken
Site previously reported from literature

Wetland Present on the Site

YES

Conservation ranking after survey:

E Rating: Local conservation value (low value)

Townland:

BALLYREAGHAN

Solid Geology:

Visean basinal limestone

Subsoil type:

Mineral Soil

Substrate type:

Mineral Soil

Substrate stability:

Very firm

River catchment:

Shannon Up

CORINE Habitats:

Pasture

Site Location

This site forms part of the Killeen Lough Wetland Complex. The quarry pond is located 2km east of Ballinalee, Co. Longford.

Site Description and Wetland Habitats Recorded

Artificial quarry pond in abandoned quarry with steep rock face on eastern side and gently sloping gravel area to south and west. No wetland vegetation occurs within pond. Quarry area consists of recolonising bare ground and gravel surface, with pioneer communities and scattered scrub.

Target Notes - (see Habitat Map for location of Target Notes)

No.	Category	Comment
N1	Habitat	Small area of scrub at edge.
N2	Habitat	Mound covered with GS2/WS1.
N3	General	Photos 6750-6756.

Management Recommendations following survey

None. Some abandoned machinery occurs on site. Access prevented by locked gate.

Future Survey Recommendations

None

Landowner Information Comments

Local information provided by adjacent land owner indicates that local opposition to illegal quarry resulted in closure of the site. Viewed from access lane to the west.

Description of potential EU Habitats Directive Annex 1 habitats

None

Main Fossitt habitats on site

ED Disturbed ground
 ED2 Spoil and bare ground
 ED3 Recolonising bare ground
 ER2 Exposed calcareous rock
 FL8 Other artificial lakes and ponds
 GS Semi-Natural Grassland
 GS2 Dry meadows and grassy verges
 WS1 Scrub

EU Habitats Directive habitats on site

None noted

Fossitt habitats surrounding site

GA1 Improved agricultural grassland
 WL1 Hedgerows

Landuse / Management Activity

Quarrying/Mining

Frequency of use

4 Dominant (>50%)

Impacting Activity (EU code and title)

C01 Mining and quarrying

Intensity

A = high

Impact

- 2 = irreparable negative influence

Threats

C01.01 Sand and gravel extraction
 E03.03 disposal of inert materials

Flora on site - Latin & English species name

<i>Agrostis stolonifera</i>	Creeping Bent
<i>Betula pubescens</i>	Downy Birch
<i>Cerastium fontanum</i>	Common Mouse-ear
<i>Chamerion angustifolium</i>	Rosebay Willowherb
<i>Corylus avellana</i>	Hazel
<i>Cynosurus cristatus</i>	Crested Dog's-tail
<i>Dactylis glomerata</i>	Cock's-foot
<i>Epilobium hirsutum</i>	Great Willowherb
<i>Festuca rubra</i>	Red Fescue
<i>Fraxinus excelsior</i>	Ash
<i>Hedera helix</i>	Ivy
<i>Holcus lanatus</i>	Yorkshire-fog
<i>Linum catharticum</i>	Fairy Flax
<i>Lotus corniculatus</i>	Common Bird's-foot-trefoil
<i>Pilosella officinarum</i>	Mouse-ear-hawkweed
<i>Plantago lanceolata</i>	Ribwort Plantain
<i>Potentilla anserina</i>	Silverweed
<i>Pteridium aquilinum</i>	Bracken
<i>Quercus sp.</i>	Oak
<i>Ranunculus repens</i>	Creeping Buttercup
<i>Rubus fruticosus agg.</i>	Blackberry
<i>Rumex sanguineus</i>	Wood dock
<i>Salix cinerea subsp. oleifolia</i>	Rusty Willow
<i>Senecio jacobaea</i>	Common Ragwort
<i>Taraxacum agg.</i>	Dandelion
<i>Trifolium pratense</i>	Red Clover
<i>Tussilago farfara</i>	Colt's-foot

Fauna on site - English and Latin species name

No faunal observations were made

Aerial Photograph showing location of the site



Figure 1. Aerial photograph showing the appearance and location of site shown by the site code and red outline (where appropriate). Aerial photograph copyright Ordnance Survey of Ireland.

GIS Habitat map of the site



Figure 2. Habitat map of site, with site boundary shown in red. Base map copyright Ordnance Survey of Ireland.

Site Name: DRUMMEEL FARM POND NORTH**Site Code:** LF289 **Area (ha):** 8.75 **Grid Ref:** 224369 279415 **County:** LF**Site designation(s):**

Undesignated site

Surveyed by:

Peter Foss & Mary Catherine Gallagher

Date of wetland survey:

22/10/2019

Survey Code:

LFWS 2019

Site source information:

Limited site inspection only

Site previously reported from literature

Wetland Present on the Site

YES

Conservation ranking after survey:

E Rating: Local conservation value (low value)

Townland:DRUMMEEL
LISTRAGHEE**Solid Geology:**

Visean basinal limestone

Subsoil type:

Mineral Soil

Substrate type:

Mineral Soil

Substrate stability:

Firm

River catchment:

Shannon UpR

CORINE Habitats:

Pasture

Site Location

This site forms part of the Killeen Lough Wetland Complex. This farm pond is located 2km south east of Ballinalee, Co. Longford.

Site Description and Wetland Habitats Recorded

Limited wetland value on this site. Stone cutting company has artificial pond adjacent to out buildings, with land to east and west dominated by species poor *Juncus effusus* wet grassland in narrow valley bordered by ridge with scrub and small area of ash hazel woodland. Field are grazed by cattle.

Target Notes - (see Habitat Map for location of Target Notes)

No.	Category	Comment
N1	General	Site not really a wetland. Borrow pit pond with wet grassland either side and Oak Hazel scrub present to the north.

Management Recommendations following survey

None

Future Survey Recommendations

None

Landowner Information Comments

Stone cutting company with adjacent artificial quarry/borrow pit pond. Wilson Plant Hire. Limited wetland value of site resulted in survey from public road from the south.

Description of potential EU Habitats Directive Annex 1 habitats

None

Main Fossitt habitats on site

ED Disturbed ground
ED2 Spoil and bare ground
FL8 Other artificial lakes and ponds
GS4 Wet grassland
WL1 Hedgerows
WN2 Oak-ash-hazel woodland
WS1 Scrub

EU Habitats Directive habitats on site

None noted

Fossitt habitats surrounding site

GA1 Improved agricultural grassland
GS4 Wet grassland
WL1 Hedgerows
WN2 Oak-ash-hazel woodland
WS1 Scrub

Landuse / Management Activity

Grazing - cattle

Frequency of use

4 Dominant (>50%)

Impacting Activity (EU code and title)

A04.02.01 non intensive cattle grazing

Intensity

B = medium

Impact

- 1 = reparable negative influence

Threats

X No threats or pressures

Flora on site - Latin & English species name

Juncus effusus

Soft-rush

No other floral observations were made

Fauna on site - English and Latin species name

No faunal observations were made

Aerial Photograph showing location of the site



Figure 1. Aerial photograph showing the appearance and location of site shown by the site code and red outline (where appropriate). Aerial photograph copyright Ordnance Survey of Ireland.

GIS Habitat map of the site



Figure 2. Habitat map of site, with site boundary shown in red. Base map copyright Ordnance Survey of Ireland.

County Longford Wetlands Field Survey 2019

CD ROM Contents

by Peter Foss, Mary Catherine Gallagher & Patrick Crushell

Contents:

1. **County Longford Wetlands Field Survey 2019.** Main survey report and individual site reports prepared by Peter J. Foss, Mary Catherine Gallagher & Patrick Crushell (In PDF format, requires Adobe Acrobat to view).
2. **Longford Wetland Site Database 2019 Version 2.0; Longford Wetland Survey Database 2019 Version 1.0** (requires Filemaker Pro to view).
3. **Excel tables to accompany the County Longford Wetlands Field Survey 2019 report**
LFWS_Survey_Database_Site_Summary: Summary information on sites survey during the LFWS 2019, including site location, and table with site description and conservation ranking.
4. **GIS Shape files from the County Longford Wetlands Field Survey 2019.**
 - a. ArcView GIS dataset (Requires ArcView GIS Software)
 - b. MapInfo GIS dataset (Requires MapInfo GIS Software)

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