DRAFT MASTERPLAN FOR MOOREHALL AND ENVIRONS

Appropriate Assessment Screening Report

and

Natura Impact Statement

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Appendix 01: Relevant Legislation and Planning Policy

Summary

1.1 SLR Consulting Ireland (SLR) was commissioned by Mayo County Council in 2021 to prepare an Appropriate Assessment (AA) screening report and Natura Impact Statement (NIS) for the proposed Masterplan for Moorehall and Environs.

1 INTRODUCTION

1.1 Background and purpose of this report

1.2 SLR Consulting Ireland (SLR) was commissioned by Mayo County Council in 2021 to prepare an Appropriate Assessment (AA) screening report, and if necessary, a Natura Impact Statement (NIS), for the proposed Masterplan for Moorehall and Environs (the Draft Masterplan).

1.2 General Description of the Plan Area

1.3 The Draft Masterplan considers the tourism, visitor development opportunities and conservation management of the historic Moorehall Estate and its environs including Lough Carra. The Moorehall Estate is located 2 km south of Carnacon village, County Mayo on the north-eastern shores of Lough Carra, which is connected to the larger Lough Mask by the Keel River. The Moorehall Estate is located ca. 15 km south of Castlebar town, ca. 15 km west of Claremorris town and ca. 20 km south - east of Westport town.

1.4 The Draft Masterplan area includes the 31.8 ha of land of the Moorehall Estate, which was purchased by Mayo County Council in 2017, the state-owned lands surrounding Lough Carra and Lough Carra itself. The northwest corner of the lake is omitted as it is privately owned. The Masterplan also makes reference to lands owned by Coillte at Towerhill Wood (68 ha), located ca. 1 km northeast of Moorehall.

1.5 The Moorehall Estate is comprised of a varied woodland (conifer plantation, young mixed woodland, and deciduous woodland), the Moorehall house, walled garden, courtyard, and farm buildings. The built structures date back to the 18th Century. Since the 1980s, the Moorehall Estate has been managed by Coillte for commercial forestry. There are several woodland trails already existing within the estate which are open to the public as well as an existing lakeside car park.

1.3 The requirement for an NIS

1.6 The aim of this report is to provide supporting information to assist the competent authority, in this case Mayo County Council, to carry out screening for likely significant effects and, if required, to determine if the Draft Masterplan will adversely affect the integrity of Natura 2000 sites within the potential zone of influence of the plan.

1.7 The Habitats Directive promotes a hierarchy of avoidance, mitigation, and compensatory measures to be addressed in the AA process as follows:

- Firstly, a plan / project should aim to avoid any negative impacts on Natura 2000 sites by identifying possible impacts early and designing the project / plan to avoid such impacts.
- Secondly, mitigation measures should be applied during the AA process to the point where no adverse impacts on the site(s) remain.
- Thirdly a plan / project may have to undergo an assessment of alternative solutions. Under this stage of the assessment, compensatory measures are required for any remaining adverse effects, but they are permitted only if (a) there are no alternative solutions and (b) the plan / project is required for imperative reasons of overriding public interest (the 'IROPI test'). European case law highlights that consideration must be given to alternatives outside the plan / project boundary area in carrying out the IROPI test.

1.4 Relevant Legislation and Policy

1.8 The main pieces of relevant legislation are as follows:

- The Habitats Directive 92/43/EEC.
- The Birds Directive 2009/147/EC.
- European Communities (Birds and Natural Habitats) Regulations 2011 – 2015.
- Planning and Development Act 2000 (as amended) - PART XAB.

1.9 The relevant sections of the legislation are summarised in **Appendix B** of this report.

1.5 Evidence of Technical Competence and Experience

1.10 Aisling Kinsella BSc MSc GradCIEEM prepared this report. Elaine Dromey BSc MSc MCIEEM conducted the technical review of this report.

1.11 Aisling is a Graduate Ecologist and has worked in ecological consultancy since September 2020. Aisling holds a BSc in Environmental Science (Zoology) and an MSc in Wildlife Management and Conservation. Aisling has assisted in the preparation of AA screening reports and Natura Impact Statements for a variety of developments.

1.12 Elaine Dromey holds a BSc in Earth Science from University College Cork and an MSc in Vegetation Survey and Assessment from the University of Reading, UK. She is a full member of the Chartered Institute of Ecology and Environmental Management. Elaine has prepared AA screening reports and Natura Impact Statements (NIS) for a range of different projects and plans.

2 METHODOLOGY

2.1 General Approach

1.13 The methodology used in this report is based on National Parks and Wildlife Service Guidance (NPWS, 2010) and EC Guidance (EC, 2001) and (EC, 2018)) on the application of the Habitats Directive. The 2001 EC guidance describes a series of stages and steps which should be completed when carrying out the assessment and these are followed here with minor modifications. The assessment applies only to Natura 2000 sites (Special Protection Areas and Special Areas of Conservation). More specifically, it only applies to the qualifying interest (QI) features of such sites i.e., the features which are the reason that the site was designated.

2.2 Stage One Screening

1.14 Stage One is a screening assessment, the purpose of which is to determine whether a plan or project requires more detailed assessment. There are two principal tests. The first of these considers whether the plan or project is needed for the management of a European site for the purpose of maintaining or restoring its conservation interest. Any such plans or projects can usually be screened out of further assessment. The second test considers whether the plan or project, without specific mitigation measures, would be likely to have a significant effect on any European Site. This requires consideration of the project on its own and in combination with other plans or projects. A project can only be screened out of further assessment if it is certain (beyond reasonable scientific doubt) that there would be no significant effects on any Natura 2000 site without mitigation designed specifically to address potential impacts on the QI of such sites. The process is also used to determine which Natura 2000 Sites and specific interest features should be included in the later stages of the assessment.

1.15 The approach to preparing the AA screening report is as follows:

- Identify Natura 2000 sites, within the potential zone of influence of the plan.
- Identify the QI of the Natura 2000 sites and review their conservation objectives.
- Review whether there is potential for the QI to be affected by the plan based on information such as the vulnerabilities of the Natura 2000 site, proximity to the plan area and the strategies and objectives of the plan.
- Consider the likelihood of potential impacts occurring based on the information collated and professional judgement.
- Consider the likelihood of cumulative effects arising from the plan in-combination with other plans and projects;
- Identify the likelihood of significant effects on Natura 2000 sites occurring because of the plan.

2.3 Stage Two: Appropriate Assessment

1.16 Stage Two is a more detailed assessment, known as an “Appropriate Assessment” due to the terminology in the legislation. This essentially repeats the second test of the screening assessment but in more detail and considering mitigation measures before reaching a conclusion. At this stage, the test is whether the project or plan will have an adverse effect on the integrity of any European site. This must be done in the light of the conservation objectives for each of the QI features that have been ‘screened in’ by the earlier stage of assessment. Any effect which is found to undermine the

conservation objectives is considered an adverse effect on the integrity of the site, and vice versa. In the event that the project is predicted to lead to adverse effects upon the integrity of the site, further stages of assessment are required before any authorisation of the project can be granted. This report does not consider these further stages of assessment.

1.17 The approach to preparing the Natura Impact Statement (NIS) is summarised as follows:

- Set out information on the Natura 2000 site(s) identified at screening stage as likely to be significantly affected by the plan.
- Describe the elements of the plan (alone or in combination with other projects or plans) that are likely to give rise to significant effects on the environment.
- Set out the conservation objectives of the Natura 2000 site(s).
- Describe how the plan will affect key species and key habitats. Acknowledge uncertainties and gaps in information.
- Describe how the integrity of the site (determined by structure and function and conservation objectives) is likely to be affected by the plan (e.g., loss of habitat, disturbance, disruption, chemical changes, hydrological changes, and geological changes, etc.). Also acknowledge uncertainties and any gaps in information.
- The appropriate assessment is carried out by the competent authority who are informed by the NIS1 and any other relevant documentation.

2.4 Sources of Information

2.4.1 For the Project Alone

2.4.1.1 Desk Study

1.18 A desk study was carried out to collate information available on Natura 2000 sites identified within the zone of influence of the Draft Masterplan area. The study area and its surroundings were viewed using satellite imagery[2] and Environmental Protection Agency (EPA) Maps[3]. Mayo County Council planning portal[4] was accessed for information on other planning applications within the Site and the immediate area up to 5 km. The National Parks and Wildlife Service (NPWS) website[5] was accessed for information on Natura 2000 sites.

2.4.2 For the Project in Combination

1.19 Cumulative effects can result from individually insignificant but collectively significant actions taking place over a period of time or concentrated in a location. Cumulative effects are particularly important in EcIA as ecological features may be already exposed to background levels of threat or pressure and may be close to critical thresholds where further impact could cause irreversible decline. Cumulative effects can also make habitats and species more vulnerable or sensitive to change (CIEEM, 2018).

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[1] Page 28 https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2009_AA_Guidance.pdf
[2] https://www.google.ie/maps (last accessed 12 April 2021)
[3] https://www.google.ie/maps (last accessed 12 April 2021)
[4] https://gis.epa.ie/EPAMaps/ (last accessed 12 April 2021)
[5] https://www.mayo.ie/planning/search (last accessed 12 April 2021)

1.20 Other plans and projects to be considered would include the following types of future development within the same zone of influence:

- Proposals for which consent has been applied which are awaiting determination in any regulatory process (not necessarily limited to planning permission).
- Projects which have been granted consent (not limited to planning permissions) but which have not yet been started or which have been started but are not yet completed (i.e., under construction).
- Proposals which have been refused permission, but which are subject to appeal, and the appeal is undetermined.
- To the extent that their details are in the public domain, proposed projects that will be implemented by a public body but for which no consent is needed from a competent authority. (CIEEM, 2018).

3 STAGE ONE: SCREENING

1.21 This section of the report identifies the zone of influence of the plan, provides information on the Natura 2000 sites within a 5 km zone of influence and sets out the potential impacts and likelihood of significant effects.

3.1 Step One: Management of any SAC, SPA or Ramsar Site

1.22 Moorehall House, its barn and farm buildings are designated as a Special Area of Conservation (SAC) for the internationally important lesser horseshoe bat *Rhinolophus hipposideros*, the northernmost range of the species in Europe. **In total, the Site area comprises part of three Natura 2000 sites.**

3.2 Step Two: Project Description

3.2.1 The Project

1.23 The overarching aim of the Draft Masterplan is to set out a framework for the future development of Moorehall and Lough Carra as a national Nature Reserve and cultural heritage attraction. Refer to Section 4.1 for further details.

3.3 Step Two, Part 2: Potential Impact Factors

1.24 The likelihood of effects is established in light of the objectives and strategies of the plan, the location of the plan area relative to the five Natura 2000 sites within the zone of influence and the QI and conservation objectives of those five sites.

1.25 The potential impacts of the proposed Masterplan to the five Natura 2000 sites within 5 km of the plan boundary are identified as:

- Habitat loss and fragmentation.
- Disturbance/ displacement.
- Introduction and/ or spread of invasive species.
- Aquatic pollution.

1.26 The potential impacts in relation to the Natura 2000 sites within 5 km of the Site are detailed in Table 1.

3.4 Step Three, Part 1: Identification of SAC, SPA, Ramsar Sites

3.4.1 Pre-Screening

1.27 The zone of influence adopted for the Draft Masterplan is 5 km from the boundary of the plan area. Natura 2000 sites beyond this distance are considered to be sufficiently distant from the plan area and / or have no ecological connectivity with the plan area such that significant effects are not likely to occur as a result of the Draft Masterplan.

1.28 There are five Natura 2000 sites within 5 km of the Draft Masterplan area comprising three Special Areas of Conservation (SAC) and two Special Protection Area (SPA) (Refer to Table 1 for further details):

- Moore Hall (Lough Carra) SAC (000527);

- Lough Carra/ Mask Complex SAC (001774);
- Towerhill House SAC (002179);
- The two SPAs are Lough Carra SPA (004051); and
- Lough Mask SPA (004062).

1.29 The available information on the Natura 2000 sites within the identified zone of influence was reviewed to establish whether or not the Draft Masterplan is likely to have a significant effect on the conservation objectives of those sites. The likelihood of effects on the QI of the Natura 2000 sites identified in this report is based on information collated from the desk study and other available existing information.

1.30 The majority of the objectives of the Draft Masterplan focus on Moorehall house, the surrounding forest, Lough Carra and its shores. There is some focus on improving linkages to tourism sites outside of the immediate environs of Moorehall forest and Lough Carra. However, Towerhill is the only one of these sites that is within or forms part of a Natura 2000 site. Towerhill House SAC 002179 is within 5 km of the Draft Masterplan boundary.

1.31 Ballinafad SAC 002081, for which the qualifying interest is lesser horseshoe bat, was considered when identifying the zone of influence. However, Ballinafad SAC is situated ca. 8 km from the plan boundary, which is well outside the typical 2.5 km lesser horseshoe bat foraging range[6]. It is not considered that there is overlap between the species populations at Ballinafad SAC and those within the plan area or that the plan area is within the foraging range for the bats at Ballinafad SAC. The plan area is sufficiently distant from and unconnected to Ballinafad SAC and it is therefore not considered to be within the zone of influence for the proposed Masterplan.

1.32 The Draft Masterplan is expected to concentrate development and human activity within Moorehall forest and along the shores of Lough Carra. Therefore, a zone of influence of 5 km from the boundary of the Draft Masterplan area is considered appropriate given the distance and lack of connectivity between the Draft Masterplan area and other Natura 2000 sites outside of a 5 km radius.

6 https://www.npws.ie/sites/default/files/publications/pdf/Lesser_horseshoe_bat_supporting_document_Jan_2018_V1.pdf (last accessed 13 April 2021)

Table 1 Natura 2000 Sites Initially considered for Source – Pathway – Receptor links

Natura 2000 Site and Code	Qualifying Interest and Conservation Objectives	Distance from Project[7]	Connections (Source-Pathway-Receptor)	Considered further in screening?
Moore Hall (Lough Carra) SAC 00527	• *Rhinolophus hipposideros* (Lesser Horseshoe Bat) [1303] **Conservation Objectives** To maintain or restore the favourable conservation condition of the habitats and species listed as QI for Moore Hall (Lough Carra) SAC, which is defined by a specific list of attributes and targets. Detailed conservation objectives can be accessed at: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000527.pdf	Within plan area	**Sources:** • Disturbance or damage of roosting, foraging and / or commuting habitats of QI species during construction and operational phases • Potential loss / fragmentation / degradation of valuable habitat (i.e., roosting / commuting / foraging habitat) for QI species **Pathways:** • The Site is located within the SAC • Roosting sites within the site • Increased noise and light • Increased visitor numbers • Disruption, damage, or loss of QI species roosting, foraging and commuting habitat **Receptors:** • Lesser horseshoe bats	Yes
Lough Carra/ Mask Complex SAC 001774	• Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110] • Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130] • Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. [3140] • European dry heaths [4030]	Within plan area	**Sources:** • Direct emissions and pollution events entering QI habitats (e.g., dust and surface runoff during construction / demolition) • Loss / degradation of habitats that QI species rely upon • Disturbance or harm to QI species	Yes

[7] Instream distance.

Natura 2000 Site and Code	Qualifying Interest and Conservation Objectives	Distance from Project[7]	Connections (Source-Pathway-Receptor)	Considered further in screening?
	• Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210] • Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* [7210] • Alkaline fens [7230] • Limestone pavements [8240] • Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0] • *Rhinolophus hipposideros* (Lesser Horseshoe Bat) [1303] • *Lutra lutra* (Otter) [1355] • *Hamatocaulis vernicosus* (Slender Green Feather-moss) [6216] **Conservation Objectives** To maintain or restore the favourable conservation condition of the habitats and species listed as QI for Lough Carra/ Mask Complex SAC, which is defined by a specific list of attributes and targets that can be found at: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO001774.pdf		• Introduction of invasive species within QI habitat **Pathways:** • The Site is located within the SAC and within close proximity to QI habitats and dust and pollution events may easily enter QI habitats • Increased visitor numbers leading to increased litter and noise-disturbance, and possible erosion or vegetation trampling. Increased visitors also lead to biosecurity risks and increased chance of the spread of invasive species. **Receptors:** • QI habitats • QI species	
Lough Carra SPA 004051	• Common Gull (*Larus canus*) [A182] **Conservation Objectives** To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected. Generic Conservation Objectives for this SAC can be accessed at: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000404.pdf	Within plan area	**Sources:** • Disturbance or harm to QI species • Loss / degradation of habitats that QI species rely upon **Pathways:** • Close proximity to the Site	Yes

Natura 2000 Site and Code	Qualifying Interest and Conservation Objectives	Distance from Project[7]	Connections (Source-Pathway-Receptor)	Considered further in screening?
			• The Site is located in close proximity to the SPA and within close proximity to valuable habitats that QI species rely upon. Dust and pollution events may easily enter these habitats • Increased visitor numbers may cause an increase in litter and noise-disturbance **Receptors:** • Common gull	
Lough Mask SPA 004062	• Tufted Duck (*Aythya fuligula*) [A061] • Black-headed Gull (*Chroicocephalus ridibundus*) [A179] • Common Gull (*Larus canus*) [A182] • Lesser Black-backed Gull (*Larus fuscus*) [A183] • Common Tern (*Sterna hirundo*) [A193] • Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395] • Wetland and Waterbirds [A999] **Conservation Objectives** To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. To maintain or restore the favourable conservation condition of the wetland habitat at Lough Mask SPA as a resource for the regularly occurring migratory waterbirds that utilise it. Generic Conservation Objectives for this SPA can be accessed at: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004062.pdf	Ca. 900 m west of plan boundary	**Sources:** • Loss / degradation of habitats that QI species rely upon • Disturbance or harm to QI species **Pathways:** • Close proximity to the Site • The Site is located in close proximity to the SPA and within close proximity to valuable habitats that QI species rely upon. Dust and pollution events may easily enter these habitats • Increased visitor numbers may cause an increase in litter and noise-disturbance **Receptors:** QI species	Yes

Natura 2000 Site and Code	Qualifying Interest and Conservation Objectives	Distance from Project[7]	Connections (Source-Pathway-Receptor)	Considered further in screening?
Towerhill House SAC 002179	• *Rhinolophus hipposideros* (Lesser horseshoe Bat) [1303] **Conservation Objectives** To maintain or restore the favourable conservation condition of the habitats and species listed as QI for Towerhill House SAC, which is defined by a specific list of attributes and targets. https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002179.pdf	Ca. 900 m east of plan boundary	**Sources:** • Disturbance or damage of roosting, foraging and / or commuting habitats of QI species during construction and operational phases • Potential loss / fragmentation / degradation of valuable habitat (i.e., roosting / commuting / foraging habitat) for QI species **Pathways:** • Close proximity to the Site • Roosting sites within the site • Increased noise and light • Increased visitor numbers • Disruption, damage, or loss of QI species roosting, foraging and commuting habitat **Receptors:** • Lesser horseshoe bats	Yes

3.5 Step Four: Likely Significant Effects

1.33 A significant effect is defined in paragraph 49 of the Waddenzee Case C-127/02 as follows:

> "*….. pursuant to the first sentence of Article 6(3) of the Habitats Directive, where a plan or project not directly connected with or necessary to the management of a site is likely to undermine the site's conservation objectives, it must be considered likely to have a significant effect on that site. The assessment of that risk must be made in the light inter alia of the characteristics and specific environmental conditions of the site concerned by such a plan or project.*"

1.34 NPWS (2010) guidance for planning authorities states:

> "*If the effects are deemed to be significant, potentially significant, or uncertain, or it the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA). Screening should be undertaken without the inclusion of mitigation, unless potential impacts clearly can be avoided through the modification or redesign of the plan or project, in which case the screening process is repeated on the altered plan. The greatest level of evidence and justification will be needed in circumstances when the process ends at screening stage on grounds of no impac*t."

1.35 The strategic actions and objectives of the Draft Masterplan are considered that some of the objectives could result in likely significant effects. Table 2 sets the LSE to the five Natura 2000 sites likely to be affected. In some instances, an effect is likely, but the significance of that effect is uncertain. Where likely significant effects are identified or where the significance of potential effects is uncertain appropriate assessment is required.

3.6 Stage One: Conclusions and Recommendations

1.36 All five Natura 2000 sites are considered to undergo LSE from the project. Therefore, it is recommended that all five Natura 2000 sites undergo a Stage Two – Appropriate Assessment (Refer to Section 4).

Table 2 Description of Natura 2000 Sites with potential Source-Pathway-Receptor links

Site	Brief Description[8]	Potential for Likely Significant Effects
Moore Hall (Lough Carra) SAC 00527	This site consists of a series of buildings within 1 km of the eastern shore of Lough Carra, Co. Mayo. The buildings are used at various times throughout the year by the lesser horseshoe bat. There are three distinct areas used by the bats at this site: a two-storey former dwelling which is used as a summer breeding site; a series of cellars and adjoining underground passage which are used as winter hibernation sites; and an underground passage in a small stone building. All three locations are attached to, or in the grounds of, the ruin of Moore Hall. The bats have uninterrupted access to all sites. The site remains of international importance and is notable as one of the most northerly locations for the lesser horseshoe bat in Ireland. Any commercial felling of timber near the site would have a negative impact on the bats. There is intermittent vandalism at the breeding site, but this does not affect the bats and it is monitored carefully. There is no disturbance at the hibernation site.	• **Rhinolophus *hipposideros* (Lesser Horseshoe Bat)** [1303] Potential for LSE from potential disturbance or damage of roosting / commuting / foraging habitat during the construction and operational phases including: • Construction activities; • Increased visitor numbers; • Potential increases in noise and lighting. **(Screened in)**
Lough Carra/ Mask Complex SAC 001774	This site is dominated by two large lakes, Lough Mask and Lough Carra, and includes the smaller Cloon Lough. Most of the site is in Co. Mayo, with a small portion in Co. Galway. The underlying geology results in a great diversity of habitats, which support many scarce and rare plants and animals. Lough Mask is the sixth largest lake in the country, and it is one of the deepest. It is an excellent example of an oligotrophic lake. Lough Carra, which is hydrologically linked to Mask, is one of the best examples in Ireland of a hard water marl lake. It is a shallow (mostly less than 2 m), predominantly spring fed, lake with only a few streams flowing into it. Its well-known pellucid green colour is due to calcareous encrustations. This site is of considerable conservation importance as it has good examples of nine habitats listed on Annex I of the E.U. Habitats Directive, four of which are listed with priority status. Some of these habitats are amongst the best examples of their kind in the country. It is also selected for two Annex II mammal species and an Annex II moss. The site is of ornithological importance for both wintering and breeding birds. A relatively large number of rare or localised plant and animal species occur, including the glacial relict Arctic Char.	• **Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110]** Potential for LSE from aquatic pollution due to run-off and discharge as well as increased tourism activities. Threat of invasive species spread by tourism activities. **(Screened in)** • **Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130]** Potential for LSE from aquatic pollution due to run-off and discharge as well as increased tourism activities. Threat of invasive species spread by tourism activities. **(Screened in)** • **Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. [3140]**

[8] https://www.npws.ie/protected-sites (last accessed 12 April 2021)

Site	Brief Description[8]	Potential for Likely Significant Effects
		Potential for LSE from change potential surface run-off and dust creation entering this aquatic habitat. Threat of invasive species spread by tourism activities. **(Screened in)** • **European dry heaths [4030]** Threat of invasive species spread by tourism activities. **(Screened in)** • **Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (*important orchid sites) [6210]** Threat of invasive species spread by tourism activities. Potential of LSE from increased footfall from increased visitor numbers leading to potential erosion / trampling / soil compaction. **(Screened in)** • **Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* [7210]** Potential for LSE from aquatic pollution due to run-off and discharge as well as increased tourism activities. **(Screened in)** • **Alkaline fens [7230]** Potential for LSE from aquatic pollution due to run-off and discharge as well as increased tourism activities. **(Screened in)** • **Limestone pavements [8240]** No potential for LSE as no habitat loss required and no habitat degradation anticipated to this habitat **(Screened out)**

Site	Brief Description[8]	Potential for Likely Significant Effects
		• **Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0]** No potential LSE identified. **(Screened out)** • ***Rhinolophus hipposideros* (Lesser Horseshoe Bat) [1303]** Potential for LSE from potential disturbance or damage of roosting / commuting / foraging habitat during the construction and operational phases including: • Construction activities; • Increased visitor numbers; • Potential increases in noise and lighting. **(Screened in)** • ***Lutra lutra* (Otter) [1355]** The potential for collision from increased us of boats on aquatic habitats. Potential for LSE from changes in water chemistry that may lead to a reduction in prey. **(Screened in)** • ***Hamatocaulis vernicosus* (Slender Green Feather-moss) [6216]** No potential LSE identified. **(Screened out)**
Lough Carra SPA 004051	The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Common Gull. The islands in Lough Carra have traditionally supported nesting gulls. A survey in 1993 recorded Common Gull (72 individuals) and Black-headed Gull (252 individuals). The site was surveyed in 1999 as part of the Seabird 2000 Survey and 65 pairs of Common Gull and 100 pairs of Black-headed Gull were recorded.	• **Common Gull (*Larus canus*) [A182]** The potential for collision from increased us of boats on aquatic habitats. The potential LSE of increased visitors leading to disturbance of QI species. **(Screened in)**

Site	Brief Description[8]	Potential for Likely Significant Effects
	The site also supports wintering populations of a number of species including Wigeon (67), Gadwall (26), Teal (63), Mallard (140), Shoveler (38), Pochard (33), Tufted Duck (133), Goldeneye (64), Little Grebe (14) Great Crested Grebe (12) and Lapwing (243) - all figures are mean peaks for 4 of the 5 winters in the period 1995/96- 1999/2000. In the past, Lough Carra supported a population of Mallard of national importance. Lough Carra SPA is of considerable ornithological importance for breeding gulls including a nationally important population of Common Gull. Part of Lough Carra SPA is a Wildfowl Sanctuary.	
Lough Mask SPA 004062	Lough Mask is one of the most important sites in the country for breeding gulls and a survey in 1999 recorded Black-headed Gull (329 pairs), Common Gull (124 pairs) and Lesser Black-backed Gull (286). Whilst higher numbers of nesting gulls have been recorded in the recent past, the 1999 populations of the three species still accounted for 2.4%, 7.8% and 6% of the respective national totals. The lake is also a traditional breeding site for Common Tern, with 44 pairs in 1995 and 39 pairs in 1999. In winter, the site has a range of waterfowl, especially diving duck, with the Tufted Duck population (453) being of national importance. Lough Mask is one of the most important inland gull breeding sites in the country, with nationally important populations of three gull species. It also has a nationally important colony of Common Tern. The site supports a good diversity of wintering waterfowl, including a nationally important population of Tufted Duck. The site is also regularly utilised by a proportion of the Erriff / Derrycraff population of Greenland White-fronted Goose. The occurrence of three species, Whooper Swan, Greenland White-fronted Goose and Common Tern is of note as these species are listed on Annex I of the E.U. Birds Directive. Part of Lough Mask SPA is a Wildfowl Sanctuary.	• Tufted Duck (*Aythya fuligula*) [A061] • Black-headed Gull (*Chroicocephalus ridibundus*) [A179] • Common Gull (*Larus canus*) [A182] • Lesser Black-backed Gull (*Larus fuscus*) [A183] • Common Tern (*Sterna hirundo*) [A193] • Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395] • Wetland and Waterbirds [A999] The potential for collision from increased us of boats on aquatic habitats. The potential LSE of increased visitors leading to disturbance of QI species. **(Screened in)**
Towerhill House SAC 002179	The site comprises the ruins of Towerhill House, the surrounding woodlands, Lough Beg and its associated swamp vegetation. At this site, the Lesser Horseshoe Bats use a man-made, stone underground passage which runs around the ruin of Towerhill House. This offers ideal winter hibernation conditions as it is humid and remains at a constant temperature. Up to 56 bats have been recorded at Towerhill House in recent years, making it a site of international importance. It is also notable for being along the northern limit of the distribution of the species in Europe. At present there is little disturbance to the bats though the erection of a grille at the roost entrance would be useful. Any commercial felling of timber near the roost site would negatively impact on the bats. Overall, this site is of conservation importance due	• *Rhinolophus hipposideros* (Lesser horseshoe Bat) [1303] Potential for LSE from potential disturbance or damage of roosting / commuting / foraging habitat during the construction and operational phases including: • Construction activities; • Increased visitor numbers; • Potential increases in noise and lighting. **(Screened in)**

Site	Brief Description[8]	Potential for Likely Significant Effects
	to the habitats and species it supports, and in particular the Annex II listed Lesser Horseshoe Bat.	

4 STAGE TWO: APPROPRIATE ASSESSMENT

4.1 Step One, Part One: Information on the Project

1.37 The aim of the Natura Impact Statement (NIS) is to provide supporting information to assist the competent authority, in this case Mayo County Council, to determine if the Draft Masterplan will adversely affect the integrity of the following Natura 2000 sites:

- Moore Hall House (Lough Carra) SAC.
- Lough Carra/ Mask Complex SAC.
- Lough Carra SPA.
- Lough Mask SPA.
- Towerhill House SAC.

1.38 The significance of the effects of the Draft Masterplan on the above sites was deemed to be uncertain and progression to 'appropriate assessment' required as a result.

1.39 The Competent Authority will be required to conduct an 'appropriate assessment' to determine whether the Draft Masterplan would adversely affect the integrity of these Natura 2000 sites. The '*integrity of the site*' can be defined as '*the coherence of the site's ecological structure and function, across its whole area, or the habitats, complex of habitats and / or populations of species for which the site is or will be classified*'[9].

1.40 The headings within the appropriate assessment report template provided in the European Commission (2001) guidance document '*Assessment of plans and projects significantly affecting Natura 2000 sites*' have been used to provide a basis to examine the potential effects objectives of the Draft Masterplan on the integrity of the aforementioned Natura 2000 sites.

1.41 The elements of the Draft Masterplan likely to give rise to significant effects on the environment are the strategic actions and objectives relating to the development of tourism infrastructure such as partial restoration of buildings designated for lesser horseshoe bat; removal of vegetation in areas important for lesser horseshoe bat foraging and commuting; increased visitor pressure due to recreational activities on or surrounding Lough Carra.

1.42 The overarching aim of the Draft Masterplan is to set out a framework for the future development of Moorehall and Lough Carra as a national Nature Reserve and cultural heritage attraction. The following vision for Moorehall is extracted from the Masterplan[10] and provides a broad summary description of the plan:

> *"'The vision for Moorehall is to develop a strategically important centre for nature conservation focused on preservation of the Lesser Horseshoe Bat and other protected species within a national Nature Reserve. Where feasible, appropriate restoration of historic structures on-site will contribute to development of a world class heritage, interpretation, and recreational visitor experience."'*

1.43 The Draft Masterplan will be guided by the following principles and the stated vision for Moorehall as a world class visitor experience:

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[9] http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/provision_of_art6_en.pdf
[10] Draft Masterplan for Moorehall and Evirons (2023)

- To maintain or restore the favourable conservation condition of Lesser Horseshoe Bat at Moorehall and Lough Carra.
- Any development of the built heritage shall promote the conservation of protected species.
- The development of sustainable and appropriate visitor and recreational infrastructure will be in line with the conservation objectives of the Special Areas of Conservation and Special Protection Areas.

1.44 To aid the visitor experience at the Moorehall Estate and also accommodate the expected increase in visitor numbers to 90,000 it is planned to develop a visitor centre and associated servicing facilities including increased car parking, water supply and wastewater facilities.

1.45 The Draft Masterplan sets out five integrated Strategic Actions to aid in the realisation of the vision and spatial strategy for Moorehall. The Strategic Actions are focused on bat and nature conservation, authenticity of the historic environment, strategic linkages, and development of a world class visitor experience.

4.2 Step One, Part Two: Information on European Sites

Table 2 details the Natura 2000 sites identified within 5 km of the Site.

4.2.1 Identification of Natura 2000 Sites

1.46 The zone of influence adopted for the Draft Masterplan is 5 km from the boundary of the plan area. Natura 2000 sites beyond this distance are considered to be sufficiently distant from the plan area and / or have no ecological connectivity with the plan area such that significant effects are not likely to occur as a result of the Draft Masterplan.

1.47 There are five Natura 2000 sites within 5 km of the Draft Masterplan area; three Special Areas of Conservation (SAC) and two Special Protection Area (SPA). The three SACs are Moore Hall (Lough Carra) SAC 000527; Lough Carra/ Mask Complex SAC 001774 and Towerhill House SAC 002179. The two SPAs are Lough Carra SPA 004051 and Lough Mask SPA 004062. These are described in more detail below.

4.2.2 Description of Natura 2000 Sites

1.48 The description of each Natura 2000 site within the 5 km zone of influence adopted for the Draft Masterplan has been prepared using the supporting information available on the NPWS website[11] and have been summarised below. Table 3 provides details of the QI and conservation objectives for each Natura 2000 site.

4.2.2.1 Moore Hall (Lough Carra) SAC 00527

> "*This site consists of a series of buildings within 1 km of the eastern shore of Lough Carra, Co. Mayo. The buildings are used at various times throughout the year by the Lesser Horseshoe Bat. There are three distinct areas used by the bats at this site: a two-storey former dwelling which is used as a summer breeding site; a series of cellars and adjoining underground passage which are used as winter hibernation sites; and an underground passage in a small stone building. All three locations are attached to, or in the grounds of, the ruin of Moore Hall. The bats have uninterrupted access to all sites.*

[11] https://www.npws.ie/protected-sites (last accessed 12 April 2021)

The site remains of international importance and is notable as one of the most northerly locations for the Lesser Horseshoe Bat in Ireland. Any commercial felling of timber near the site would have a negative impact on the bats. There is intermittent vandalism at the breeding site, but this does not affect the bats and it is monitored carefully. There is no disturbance at the hibernation site."

4.2.2.2 Lough Carra/ Mask Complex SAC 001774

"This site is dominated by two large lakes, Lough Mask and Lough Carra, and includes the smaller Cloon Lough. Most of the site is in Co. Mayo, with a small portion in Co. Galway. The underlying geology results in a great diversity of habitats, which support many scarce and rare plants and animals.

Lough Mask is the sixth largest lake in the country, and it is one of the deepest. It is an excellent example of an oligotrophic lake. Lough Carra, which is hydrologically linked to Mask, is one of the best examples in Ireland of a hard water marl lake. It is a shallow (mostly less than 2 m), predominantly spring fed, lake with only a few streams flowing into it. Its well-known pellucid green colour is due to calcareous encrustations.

This site is of considerable conservation importance as it has good examples of nine habitats listed on Annex I of the E.U. Habitats Directive, four of which are listed with priority status. Some of these habitats are amongst the best examples of their kind in the country. It is also selected for two Annex II mammal species and an Annex II moss. The site is of ornithological importance for both wintering and breeding birds. A relatively large number of rare or localised plant and animal species occur, including the glacial relict Arctic Char."

4.2.2.3 Lough Carra SPA 004051

"*The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Common Gull. The islands in Lough Carra have traditionally supported nesting gulls.*

A survey in 1993 recorded Common Gull (72 individuals) and Black-headed Gull (252 individuals). The site was surveyed in 1999 as part of the Seabird 2000 Survey and 65 pairs of Common Gull and 100 pairs of Black-headed Gull were recorded.

The site also supports wintering populations of a number of species including Wigeon (67), Gadwall (26), Teal (63), Mallard (140), Shoveler (38), Pochard (33), Tufted Duck (133), Goldeneye (64), Little Grebe (14) Great Crested Grebe (12) and Lapwing (243) - all figures are mean peaks for 4 of the 5 winters in the period 1995/96- 1999/2000. In the past, Lough Carra supported a population of Mallard of national importance.

Lough Carra SPA is of considerable ornithological importance for breeding gulls including a nationally important population of Common Gull. Part of Lough Carra SPA is a Wildfowl Sanctuary."

4.2.2.4 Lough Mask SPA 004062

"*Lough Mask is one of the most important sites in the country for breeding gulls and a survey in 1999 recorded Black-headed Gull (329 pairs), Common Gull (124 pairs) and Lesser Black-backed Gull (286). Whilst higher numbers of nesting gulls have been recorded in the recent past, the 1999 populations of the three species still accounted for 2.4%, 7.8% and 6% of the respective national totals.*

The lake is also a traditional breeding site for Common Tern, with 44 pairs in 1995 and 39 pairs in 1999. In winter, the site has a range of waterfowl, especially diving duck, with the Tufted Duck population (453) being of national importance.

Lough Mask is one of the most important inland gull breeding sites in the country, with nationally important populations of three gull species. It also has a nationally important colony of Common Tern. The site supports a good diversity of wintering waterfowl, including a nationally important population of Tufted Duck. The site is also regularly utilised by a proportion of the Erriff/Derrycraff population of Greenland White-fronted Goose. The occurrence of three species, Whooper Swan, Greenland White-fronted Goose and Common Tern is of note as these species are listed on Annex I of the E.U. Birds Directive. Part of Lough Mask SPA is a Wildfowl Sanctuary."

4.2.2.5 Towerhill House SAC 002179

"The site comprises the ruins of Towerhill House, the surrounding woodlands, Lough Beg and its associated swamp vegetation. At this site, the Lesser Horseshoe Bats use a man-made, stone underground passage which runs around the ruin of Towerhill House. This offers ideal winter hibernation conditions as it is humid and remains at a constant temperature. Up to 56 bats have been recorded at Towerhill House in recent years, making it a site of international importance. It is also notable for being along the northern limit of the distribution of the species in Europe.

At present there is little disturbance to the bats though the erection of a grille at the roost entrance would be useful. Any commercial felling of timber near the roost site would negatively impact on the bats. Overall, this site is of conservation importance due to the habitats and species it supports, and in particular the Annex II listed Lesser Horseshoe Bat."

4.2.3 Qualifying Interests

1.49 Species and habitat types for which SAC are designated and bird species for which SPA are classified are referred to as QI on the NPWS website pages for protected sites[12]. NPWS (2010) guidance states that "*The annexed habitats and species for which each site is selected correspond to the qualifying interests of the sites; from these the conservation objectives of the site are derived.*" The qualifying interests for each Natura 2000 site identified within 5 km of the Draft Masterplan boundary are listed within Table 3 below. The information presented in Table 3 was obtained from the NPWS website.

4.2.4 Conservation Objectives

1.50 The conservation objectives were reviewed and considered for the relevant QI when preparing this report, from the available information online on the NPWS website[13]. The conservation objectives for the Natura 2000 sites likely to be affected by the plan are summarised as follows in Table 3.

1.51 The conservation objectives were considered for each QI likely to be affected in order to determine if the integrity of the Natura 2000 site could be undermined by the potential impacts and effects of the plan.

[12] https://www.npws.ie/protected-sites (last accessed 09 April 2021)
[13] https://www.npws.ie/protected-sites/sac/002162

Table 3 Qualifying Interests and Conservation Objectives for Natura 2000 sites within 5 km of the Plan Boundary

Natura 2000 Site	Distance from Plan Boundary	Qualifying Interests	Conservation objectives
Moore Hall (Lough Carra) SAC 000527	Within plan area	• *Rhinolophus hipposideros* (Lesser Horseshoe Bat) [1303]	To maintain or restore the favourable conservation condition of the habitats and species listed as QI for Moore Hall (Lough Carra) SAC, which is defined by a specific list of attributes and targets. Detailed conservation objectives can be accessed at: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000527.pdf
Lough Carra/ Mask Complex SAC 001774	Within plan area	• Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110] • Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130] • Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140] • European dry heaths [4030] • Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210] • Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* [7210] • Alkaline fens [7230] • Limestone pavements [8240] • Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0] • *Rhinolophus hipposideros* (Lesser Horseshoe Bat) [1303] • *Lutra lutra* (Otter) [1355]	To maintain or restore the favourable conservation condition of the habitats and species listed as QI for Lough Carra/ Mask Complex SAC, which is defined by a specific list of attributes and targets that can be found at: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO001774.pdf

Natura 2000 Site	Distance from Plan Boundary	Qualifying Interests	Conservation objectives
		• *Hamatocaulis vernicosus* (Slender Green Feather-moss) [6216]	
Lough Carra SPA 004051	Within plan area	• Common Gull (*Larus canus*) [A182]	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected. Generic Conservation Objectives for this SAC can be accessed at: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000404.pdf
Lough Mask SPA	Ca. 900 m west of plan boundary	• Tufted Duck (*Aythya fuligula*) [A061] • Black-headed Gull (*Chroicocephalus ridibundus*) [A179] • Common Gull (*Larus canus*) [A182] • Lesser Black-backed Gull (*Larus fuscus*) [A183] • Common Tern (*Sterna hirundo*) [A193] • Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395] • Wetland and Waterbirds [A999]	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. To maintain or restore the favourable conservation condition of the wetland habitat at Lough Mask SPA as a resource for the regularly-occurring migratory waterbirds that utilise it. Generic Conservation Objectives for this SPA can be accessed at: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004062.pdf
Towerhill House SAC 002179	Ca. 900 m east of plan boundary	• *Rhinolophus hipposideros* (Lesser Horseshoe Bat) [1303]	To maintain or restore the favourable conservation condition of the habitats and species listed as QI for Towerhill House SAC, which is defined by a specific list of attributes and targets. https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002179.pdf

4.3 Step Two, Part One: Effects of the Project Alone

1.52 This section of the report sets out the potential implications of the proposed Masterplan (either alone or in combination with other projects or plans) on the integrity of the five Natura 2000 sites listed above with respect to the conservation objectives of these sites and to their structure and function. The focus is on demonstrating, with supporting evidence, that there will be no adverse effects on the integrity of the five Natura 2000 sites carried forward from screening stage. Where this is not the case, adverse effects must be assumed.

1.53 The elements of the Draft Masterplan likely to give rise to significant effects on the environment are the strategic actions and objectives relating to the development of tourism infrastructure such as partial restoration of buildings designated for lesser horseshoe bat; removal of vegetation in areas important for lesser horseshoe bat foraging and commuting; increased visitor pressure due to recreational activities on or surrounding Lough Carra.

1.54 Further details on each of these impacts are provided in the sub-sections below.

4.3.1 Habitat loss and fragmentation

1.55 There will be no loss of habitats listed as QI within Natura 2000 sites. However, surrounding habitats, such as the woodland present within Moorehall estate, are important for supporting foraging and commuting bats. Loss of these habitats may occur due to the removal of trees and other vegetation for creation of new walkways and footpaths: opening up views (i.e., for scenic purposes) or the development of visitor infrastructure.

1.56 Removal of vegetation, such as trees and shrubs, to facilitate movement of visitors or open up vistas has potential to impact the lesser horseshoe bat population, listed as a QI for Moorehall House (Lough Carra) SAC. The removal of vegetation could cause a reduction in the foraging and commuting habitat.

1.57 The objectives of the Draft Masterplan include partial restoration of the Moorehall House and farm outbuildings that are used by lesser horseshoe bats as summer breeding sites and winter hibernation sites, respectively. Partial restoration of these structures will require development or construction works in close proximity to internationally important lesser horseshoe bat roosts. This has potential to cause disturbance of bats using the buildings and could cause permanent displacement as a result. This would result in a reduction in population numbers.

1.58 The objectives of the Draft Masterplan also include opening up the view from Moorehall House to Lough Carra through the removal of vegetation. The woodland surrounding Moorehall House provides foraging and commuting habitat for the lesser horseshoe bat populations of both Moorehall House and Towerhill House (within 2.5 km foraging range). Removal of trees may result in the loss of supporting habitat used by foraging and / or commuting lesser horseshoe bats.

1.59 The proposed visitor experience objectives could result in increased water-based recreational activities on the lakes and in the surrounding habitats. Such activity could disturb otter breeding along the lakeshore and has the potential to cause temporary or long-term displacement of the species from the Draft Masterplan area. Displacement could affect the otter population through reduction in numbers should there be insufficient prey availability and breeding habitat elsewhere to support those displaced from the Draft Masterplan area.

1.60 Introduction and / or spread of non – native invasive species arising from increased movement of mechanised vehicles into the plan area by road and also via water could adversely affect the habitats and species of Lough Carra/ Mask Complex SAC 001774. Similarly, reduction in the distribution or area of habitat could occur due to changes in water quality and water chemistry. Deterioration in

habitat quality undermining the structure and function could occur through changes in water quality and water chemistry.

1.61 Disturbance of nesting, feeding and / or roosting birds due to increased water-based recreational activities associated with the strategic actions and objectives of the plan could adversely affect the QI that the SPA sites are classified for.

4.3.2 Disturbance/ displacement

1.62 Due to the open access nature of the Moorehall estate, there is no information available on the current number of visitors and therefore it has not been possible to accurately predict future visitation numbers upon implementation of the plan. However, the number of people visiting and working within the Draft Masterplan boundary is expected to increase substantially.

1.63 An increase in visitors will in turn increase the risk of disturbance to the QI of Natura 2000 sites within the zone of influence of the plan. Water based activities close to islands with breeding colonies of birds pose a disturbance risk. Similarly increasing access by humans and potential disturbance associated with walkers, dogs and movement along the lake shore has the potential to result in disturbance to species listed as QI of Lough Carra SPA and Lough Carra / Mask Complex SAC.

1.64 Increased footfall within the Draft Masterplan area and the zone of influence may also result in disturbance to QI such as "Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) [6210]", particularly from walkers leaving designated paths resulting in trampling of the flora, soil compaction and erosion.[14]

4.3.3 Non-native invasive species

1.65 Non-native invasive species, pests and diseases could be introduced or spread by activities associated with tourism, particularly via boating/ water sports, angling and walking. The introduction or spread of non-native invasive species has potential to affect habitats and species listed as QI of Natura 2000 sites within the zone of influence of the plan.

1.66 According to EU member state reports under the Article 17 of the Habitats Directive for the period 2007-2012, invasive species were one of the top pressures and / or threats to the following habitats listed as QI:

- Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110][15].
- Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130][16].
- Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. [3140][17].
- European dry heaths [4030][18].

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[14] https://ec.europa.eu/environment/nature/natura2000/management/habitats/pdf/6210_Seminatural_dry_grasslands.pdf (last accessed 13 April 2021)

[15] Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) (europa.eu) (last accessed 06 July 2021)

[16] Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoto-Nanojuncetea (europa.eu) (last accessed 06 July 2021)

[17] Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. (europa.eu)

[18] European dry heaths (europa.eu) (last accessed 06 July 2021)

- Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) [6210][19].

4.3.4 Aquatic Pollution

1.67 Pollution to surface waters such as Lough Carra may occur as a result of increased activity within or on the lake as well as run off or discharge from the development of tourism infrastructure. Changes in water quality or water chemistry as a result of emission of pollutants such as wastewater or hydrocarbons may affect QI, such as otter, through reduction of prey availability.

1.68 Similarly, the changes in water quality and/ or chemistry may result in reduction or loss of habitats selected as QI. Pollution and eutrophication have been reported by EU member states as one of the top pressures and/ or threats to the following habitats listed as QI:

- Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110].
- Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130].
- Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. [3140].
- Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* [7210][20].
- Alkaline fens [7230][21].

4.3.5 Mortality

1.69 The potential increase in vehicular road traffic and use of mechanised boats on the lake could result in direct mortality of species such as otter through collision.

4.4 Step Two, Part Two: Effects of the Project in Combination

1.70 The following plans and projects were considered together with the objectives of the Draft Masterplan for potential cumulative impacts and effects:

- Mayo County Development Plan 2022-2028
- Ballintubber Abbey Culture and Heritage Visitor Centre.

1.71 The proposal for Ballintubber Abbey will allow the Abbey to cater for a much larger visitor audience of up to 80,000 per year. There is potential for other plans and projects, as set out above, to act in-combination and to give rise to cumulative effects due to disturbance, fragmentation and damage to habitats and reduction of water quality due to increased visitor pressures

4.5 Step Two, Part Three: Assessment of effects on Conservation Objectives

1.72 The Habitats Directive defines when the conservation status of the listed habitats and species is considered as favourable. The definitions it uses for this are specific to the Directive. In summary, they require that the range and areas of the listed habitats, and the range and population of the listed species, should be at least maintained at their status at the time of designation. Site-specific

[19] Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(*important orchid sites) (europa.eu) (last accessed 06 July 2021)
[20] Calcareous fens with Cladium mariscus and species of the Caricion davallianae (europa.eu) (last accessed 06 July 2021)
[21] Alkaline fens (europa.eu) (last accessed 06 July 2021)

conservation objectives aim to define favourable conservation conditions for a particular habitat or species at that site.

1.73 Article (1) of the Habitats Directive (92/43/EEC) describes favourable conservation status for habitats and species as follows.

- Favourable conservation status of a habitat is achieved when:
    - Its natural range, and area it covers within that range, are stable or increasing, and
    - The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
    - The conservation status of its typical species is favourable.
- The favourable conservation status of a species is achieved when:
    - Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
    - The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
    - There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

1.74 The conservation objectives for the five Natura 2000 sites within 5 km are available on the NPWS website and are summarised in Table 4 below.

Table 4: The potential effects of the Draft Masterplan for Moorehall and Environs on the qualifying interests of the Natura 2000 sites identified within the 5 km zone of influence

Natura 2000 site	Qualifying Interest	Potential Effects of Moorehall Masterplan
Moore Hall (Lough Carra) SAC 000527	Lesser Horseshoe Bat	Risk of disturbance due to increased human activity as a result of the projected increase in visitor numbers as well as the partial restoration of Moorehall house and the farm outbuildings. Reduced foraging and commuting habitat due to removal of trees and vegetation within Moorehall estate.
Lough Carra/ Mask Complex SAC 001774	Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110] Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130] Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140]	Introduction and / or spread of non – native invasive species arising from increased movement of mechanised vehicles into the plan area by road and also via water. Reduction in the distribution or area of habitat due to changes in water quality and water chemistry. Deterioration in habitat quality undermining the structure and function through changes in water quality and water chemistry.
Lough Carra/ Mask Complex SAC 001774	European dry heaths [4030] Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210] Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* [7210] Alkaline fens [7230] *Hamatocaulis vernicosus* (Slender Green Feather-moss) [6216]	Increased human access to areas that are sensitive to trampling could result in deterioration in quality and resilience of the habitats. Effects on groundwater quality and / or levels could adversely affect groundwater dependent terrestrial ecosystems such as calcareous fens and alkaline fens.

Natura 2000 site	Qualifying Interest	Potential Effects of Moorehall Masterplan
	Limestone pavements [8240] Alluvial forests with Alnus glutinosa and Fraxinus excelsior (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0]	
Lough Carra / Mask Complex SAC 001774	Lesser Horseshoe Bat	Risk of disturbance due to increased human activity as a result of the projected increase in visitor numbers. Reduced foraging and commuting habitat due to removal of trees and vegetation within Moorehall estate.
Lough Carra / Mask Complex SAC 001774	Otter	The proposed visitor experience objectives could result in increased water-based recreational activities on the lakes and in the surrounding habitats. Such activity could disturb otter breeding along the lakeshore and has the potential to cause temporary or long-term displacement of the species from the Masterplan area. Displacement could affect the otter population through reduction in numbers should there be insufficient prey availability and breeding habitat elsewhere to support those displaced from the Masterplan area. There is also a risk of mortality due to increased visitor traffic on the road and on the lake as there is potential for collision with vehicles and mechanised boats.
Lough Carra SPA 004051	Common Gull	Disturbance to nesting gulls on the islands in Lough Carra due to increased water-based recreational activities. Release of pollutants due to water-based activities, e.g., boating with motors, which could result in deterioration of water quality or changes to water chemistry. Such effects could result in the reduction of prey species.
Lough Mask SPA 004062	Wetland and Waterbirds	Disturbance of nesting, feeding and / or roosting birds due to increased water-based recreational activities associated with the strategic actions and objectives of the plan.

4.6 Step Three: Effects on Integrity

1.75 The potential emissions of pollutants, such as hydrocarbons or wastewater, arising from increased visitor numbers and vehicles combined with insufficient wastewater infrastructure to service the increase in visitors could affect both groundwater and surface water systems. The emissions of untreated hydrocarbons and / or wastewater to surface and / or groundwater systems that link to Lough Carra may result in deterioration in water quality or changes in water chemistry within the SAC. These effects could result in population reduction through habitat loss, mortality of species and reduction in the distribution of supporting habitat. The effects described could undermine the conservation objectives for the QI affected which would adversely affect the integrity of Lough Carra / Mask Complex SAC 001774.

1.76 Lough Mask SPA and Lough Carra SPA could be adversely affected by increased visitor numbers using the water for recreational activities and visiting areas that were previously inaccessible to the public or relatively isolated and undisturbed by visitors. The disturbance and possible displacement of these species could affect population numbers. The potential disturbance and displacement caused by the proposed objectives of the Draft Masterplan, when considered in – combination with other plans and projects such as Ballintubber Abbey Culture and Heritage Visitor Centre, could also result in cumulative effects on Lough Mask SPA and Lough Carra SPA due to the predicted increase in visitor numbers and resultant associated activities. The Draft Masterplan both alone, and in – combination with other plans and projects, has the potential to undermine the integrity of Lough Mask SPA and Lough Carra SPA through activities associated with the predicted increase in visitor number and associated recreational uses of the terrestrial and aquatic habitats.

1.77 The partial restoration of Moore Hall and outbuildings has potential to cause disturbance of lesser horseshoe bat using these buildings as roost sites and could cause permanent displacement of some or all of the population as a result. The resultant reduction in population numbers could potentially cause the permanent loss of an internationally important roost site for lesser horseshoe bat.

4.7 Step Four: Mitigation Measures

1.78 The Draft Masterplan is by its nature a high level strategic and aspirational document and by default the mitigation measures proposed will also be relatively high level in nature. The Draft Masterplan includes implementation measures for the Strategic Objectives that provide high-level and generic guidance for protection of lesser horseshoe bat during implementation of the strategic actions and objections of the plan. However, these measures will require additional site specific / project / works specific detail to fully mitigate the potential effects of implementation of the strategic actions and objections of the plan.

1.79 It must also be noted that the assessment at plan level does not exempt projects or plans arising from the Draft Masterplan from the assessment requirements of Article 6(3) when further detail is known. In other words, projects or plans that result from the strategic actions and objections of the Draft Masterplan must undergo Article 6 assessment before they can be permitted or proceed.

4.7.1.1 Roles and Responsibilities

1.80 Mayo County Council, Coillte and National Parks and Wildlife Service (NPWS) will be responsible for ensuring that the mitigation measures proposed are implemented and that the measures are implemented for the lifetime of the Draft Masterplan. They will also be responsible for ensuring all proposed works, projects and plans are fully considered under the requirements of Article 6(3) and, if required, Article 6(4) of the Habitats Directive.

1.81 The contractor(s) appointed to carry out restoration or other works arising from implementation of the strategic objectives and actions will be required to designate a member of staff, or engage a specific person, to assume responsibility for implementation of all environmental protective measures during the works. The appointed works contractor will be responsible for the implementation of good working practice during construction and mitigation measures as set out, but not limited to, in this document and in any subsequent assessments or method statements. The appointed contractor will be responsible for providing a briefing on environmental protection measures and ecological sensitivities of the Site to all site personnel in advance of commencement of enabling works. The appointed contractor will be responsible for ensuring all mitigation measures set out in this document, in any Environmental Operating Plan (EOP), Construction Environmental Management Plan (CEMP) and any site / works-specific method statements; are fully and correctly implemented. Any environmental protection measures proposed should be tried and tested standard measures and their efficacy for the chosen use easily demonstrable.

1.82 The names and contact details of the individuals with responsibility for implementation and supervision of mitigation / environmental protection measures will be clearly identified and set out in documents such as the CEMP and site- specific method statements as appropriate.

4.7.1.2 Biosecurity Strategy

1.83 Formal biosecurity standards for Lough Carra and Lough Mask, to prevent the inadvertent disruption of these natural ecosystems are required across the Visitor Plan area.

1.84 The introduction of Biosecurity Facilities at Designated Entry Points should be considered around Lough Carra, and Lough Mask, to reduce the risk of introduction and / or spread of invasive species. These should include the following as a minimum:

- anti-fouling stations for routine boat cleansing procedures;
- cleansing / power washing stations for incoming / outgoing craft;
- well placed and well serviced pumping stations to prevent unlicensed bilge discharge; and
- spot inspections by licensed navigation staff.

4.7.1.3 Good Working Practice

1.85 Good work practices such as those set out in, but not limited to, *Guidelines on Protection of Fisheries During Construction Works In and Adjacent to Waters* (IFI, 2016), *Environmental Good Practice on Site Guide* (CIRIA, 2015) will be employed at all times during implementation of plans and projects arising from the Draft Masterplan.

4.7.1.4 Standard Environmental Protection Measures

1.86 The mitigation measures proposed for each strategic action and associated objectives are set out below in Table 5 and can be broadly summarised as follows:

- Wastewater, surface water management and drinking water infrastructure must be carefully designed in a manner that is sensitive to the built and environmental heritage of the plan area. The infrastructure must be fully functioning prior to the development of any of the projects or plans arising from the strategic actions and objectives of the Draft Masterplan. The existing toilet facilities will be decommissioned before development of any of the projects or plans arising from the strategic actions and objectives of the Draft Masterplan.
- Measures to protect the environment will be incorporated into projects or plans arising from the strategic actions and objectives of the Draft Masterplan to prevent adverse effects on the integrity of Natura 2000 sites.

- The design of linkages, paths and cycleways must be prepared with the sensitivities of Natura 2000 sites and the broader ecological environment in mind. Any such proposal must consider the potential for increased disturbance of species, such as otter and breeding, roosting or foraging birds, due to any increase of human activities. Locating and designing paths and cycleways should be carried out with input from ecologists and planners to ensure there is no risk of adverse effect on Natura 2000 sites.

1.87 The following environmental protection measures will be implemented during any works arising from the plan:

- Sediment barriers will be installed at a minimum of 50 m from all watercourses and / or waterbodies to prior to commencement of enabling works.
- No refuelling will take place over or within 50 m of any watercourse or any associated drainage ditches.
- Precaution will be taken to avoid the introduction and / or spread of invasive plant species[22].
- Surface water management measures will be constructed at an early stage of any proposed implementation works and surface water run-off will be directed to this drainage system and will pass through silt traps prior to discharge.
- Good practice construction techniques would be adopted for the management of sediment and surface water run-off generated during the construction phase of the proposed development. Sustainable Drainage Systems (SuDS) would be used where applicable.
- Effluent and waste from temporary on-site welfare facilities would be maintained, collected, and disposed by a contracted licenced waste contractor.
- Materials required for the works will be delivered on a 'just in time basis' so as to minimise storage of materials on site.
- Superficial soils would be excavated and stored temporarily. It is anticipated that most of the soil resources within areas directly affected by construction activities would be able to be stored and reinstated as close as possible to where they were excavated in accordance with best practice; so that the site would be restored with minimal movement of material from its original location.
- All equipment and machinery will be checked for leaks and other potential sources of contaminants before arriving on site and on a daily basis. Any equipment or machinery likely to introduce to contaminants will not be brought on site or will be removed from site immediately any leak is discovered. Spill kits will be available to machine operators, and they will be trained in their use.
- At the project outset, the construction site will be fenced off and no construction activities will be permitted outside designated works area.
- Noise and vibration control will follow BS 5228: Code of Practice for Noise and Vibration Control on Construction and Open Sites.
- Work will be completed during daylight hours. There will be no constant artificial lighting of the construction site at night. Motion triggered security lighting may be used but this will be directed downwards and sited so as to minimise any light spill.
- All plant will be regularly maintained to minimise unnecessary noise.

[22] See guidance such as IFI biosecurity guidance - https://www.fisheriesireland.ie/Biosecurity/biosecurity.html

- Machines which are used intermittently will be shut down or throttled back to a minimum during those periods when they are not in use.
- All vehicles and mechanical plant will be fitted with effective exhaust silencers and maintained in good working order for the duration of the contract.
- Compressors will be of the "sound reduced" models fitted with properly lined and sealed acoustic covers which will be kept closed whenever the machines are in use and all ancillary pneumatic tools shall be fitted with suitable silencers.
- Surface water and groundwater encountered during excavations will be treated using appropriate measures in advance of discharge. Mitigation measures to prevent discharge of contaminated and / or silt laden water will include, but are not limited to, hydrocarbon interceptors, silt barriers, settlement ponds / tanks and silt traps. The equipment used in the management of surface water will be subject to weekly checks and a regular maintenance schedule.

4.7.1.5 Efficacy of Environmental Protection Measures

1.88 The environmental measures set out above are proven to work for the purposes that they are typically employed and provide certainty that the integrity of Natura 2000 sites will not be affected by the implementation of the strategic actions and objectives of Moorehall Masterplan. These measures will ensure that pollutants will not be discharged to surface waters and that there will be no effect on the water quality or changes to water chemistry.

1.89 If the mitigation measures proposed in this report along with the implementation measures in the Draft Masterplan and any mitigation measures in the Environmental Report are fully implemented as described, to prevent effects on QI of it is considered that adverse effects on the integrity of the five Natura 2000 sites within the zone of influence of the plan can be avoided.

Table 5: Mitigation measures for the Draft Masterplan Strategic Actions and Objectives

Strategic Action	Objectives	Effects of Strategic Actions and Objectives	Mitigation measures	Effect of the Mitigation Measures
1. Conservation Management Plan for Moorehall and Lough Carra	• Achieving Nature Reserve Status and Conservation Management Plan. • Conservation Objectives for Favourable Habitat Condition for the Lesser Horseshoe and other bat species at Moore Hall and Towerhill. • Targeted Interventions for Biodiversity & Conservation. • Targeted Conservation Measures for Lough Carra.	• The targeted intervention for biodiversity and conservation has the potential to negatively affect habitats and species listed as QI of Natura 2000 sites where competing interests exist e.g., removal of ivy from buildings to protect the structures may significantly affect bats using the trees for transient roosts or perching. • The remaining objectives are not likely to adversely affect Natura 2000 sites.	• The proposed interventions for biodiversity and conservation should be carefully considered in light of their potential for effects on QI other than those targeted. In other words, competing interests of QI must be fully considered before implementing any interventions. • Projects or plans arising from this objective will be required to undergo assessment under Article 6 of the Habitats Directive.	• The mitigation measures proposed, if fully and correctly implemented, are considered sufficient to avoid adverse effects on the integrity of the Natura 2000 sites as a result of implementation of the strategic actions and objectives of Moorehall Masterplan.

Strategic Action	Objectives	Effects of Strategic Actions and Objectives	Mitigation measures	Effect of the Mitigation Measures
2. Authenticity and Restoration of Key Features of Interest of the Historic Environment	• Preparation of a Conservation Management Plan. • Partial Restoration of Moore Hall and Outbuildings. • Restoration of the Historic Landscape.	The proposed restoration of Moore Hall and outbuildings and historic landscape has the potential to affect lesser horseshoe bat through disturbance, change in temperature and humidity, obstruction of entry and exit points and mortality. The potential for changes in humidity, temperature etc. has the potential to permanently displace the species from their roost site at Moorehall.	• There will be no works carried out without first consulting with a bat specialist familiar with lesser horseshoe but also with the other species of bat using the house. • Temperature, humidity, lighting, and noise will be carefully controlled and monitoring throughout any restoration works on the house and outbuildings. • There will be no removal of vegetation in, on and close to Moore hall and outbuildings without first considering the site / work specific requirements to ensure no adverse effects on lesser horseshoe bats. • Contractors appointed to undertake any restoration, or other, works within the Draft Masterplan area, will be informed from the outset of the sensitivities of Moorehall SAC and Lough Carra SAC. The contractors will be expected to provide CEMP / EOP and site-specific method statements detailing measures taken to protect the environment during all phases of works. • Projects or plans arising from this objective will be required to be undergo assessment under Article 6 of the Habitats Directive.	The mitigation measures proposed, if fully and correctly implemented, are considered sufficient to avoid adverse effects on the integrity of the Natura 2000 sites as a result of implementation of the strategic actions and objectives of Moorehall Masterplan.

Strategic Action	Objectives	Effects of Strategic Actions and Objectives	Mitigation measures	Effect of the Mitigation Measures
3. Development of the Visitor Experience	• Developing the Visitor Infrastructure; Access Improvements, Visitor Centre, Car Park, Proposed Trailhead for Walks & Trails. • Experience Development Framework • Linking Opportunities to Experiences at Moorehall • Experiences Based on Thematic Framework	• Emissions of pollutants to surface and groundwater as a result of increased visitor numbers and insufficient facilities to support them. • Loss / fragmentation of supporting habitat for species such as lesser horseshoe bat due to provision of visitor infrastructure as described in the objective. • Disturbance of species due to increased human pressures and potential for permanent displacement and mortality.	• Wastewater, surface water management and drinking water infrastructure must be carefully designed in a manner that is sensitive to the built and environmental heritage of the plan area. • Wastewater, drainage and drinking water infrastructure must be in place and fully functional prior to development of visitor facilities. • Removal or alteration of vegetation must be considered in light of effects on QI of Natura 2000 sites. Removal cannot proceed without screening for appropriate assessment to determine effects on species such as lesser horseshoe bat. • Projects or plans arising from this objective will be required to be undergo assessment under Article 6 of the Habitats Directive.	• The mitigation measures proposed, if fully and correctly implemented, are considered sufficient to avoid adverse effects on the integrity of the Natura 2000 sites as a result of implementation of the strategic actions and objectives of Moorehall Masterplan.

Strategic Action	Objectives	Effects of Strategic Actions and Objectives	Mitigation measures	Effect of the Mitigation Measures
4. Building Strategic Linkages; Interpretation and Signage	• Development of Visitor Hubs • Improving Linkages • Validating the Interpretation Framework • Lough Carra links to the Candidate UNESCO Geopark • Signage • Online Signposting	• Emissions of pollutants to surface and groundwater as a result of increased visitor numbers and insufficient facilities to support them. • Loss / fragmentation of supporting habitat for species such as lesser horseshoe bat due to provision of visitor infrastructure as described in the objective. • Disturbance of species due to increased human pressures and potential for permanent displacement and mortality.	• Wastewater, surface water management and drinking water infrastructure must be carefully designed in a manner that is sensitive to the built and environmental heritage of the plan area. • Wastewater, drainage and drinking water infrastructure must be in place and fully functional prior to development of visitor facilities. • The design of linkages, paths and cycleways must be prepared with the sensitivities of Natura 2000 sites and the broader ecological environment in mind. Any such proposal must consider the potential for increased disturbance of species, such as otter and breeding, roosting or foraging birds, due to any increase of human activities. Locating and designing paths and cycleways should be carried out with input from ecologists and planners to ensure there is no risk of adverse effect on Natura 2000 sites.	• The mitigation measures proposed, if fully and correctly implemented, are considered sufficient to avoid adverse effects on the integrity of the Natura 2000 sites as a result of implementation of the strategic actions and objectives of Moorehall Masterplan.

Strategic Action	Objectives	Effects of Strategic Actions and Objectives	Mitigation measures	Effect of the Mitigation Measures
			• Measures to protect the environment will be incorporated into any project or plan that has potential to adversely affect the integrity of a Natura 2000 sites. Examples of such measures are set out in guidance such as, but not limited to: • Guidelines on Protection of Fisheries During Construction Works In and Adjacent to Waters (IFI, 2016). • Environmental Good Practice on Site Guide (CIRIA, 2015).	
5. Infrastructure, Planning & Business Case	• Infrastructure Plan; Water & Wastewater, Car Parking • Determining the Business Model	• Emissions of pollutants to surface and groundwater as a result of increased visitor numbers and insufficient facilities to support them.	• Wastewater, surface water management and drinking water infrastructure must be carefully designed in a manner that is sensitive to the built and environmental heritage of the plan area. • Wastewater, drainage and drinking water infrastructure must be in place and fully functional prior to development of visitor facilities.	• The mitigation measures proposed, if fully and correctly implemented, are considered sufficient to avoid adverse effects on the integrity of the Natura 2000 sites as a result of implementation of the strategic actions and objectives of Moorehall Masterplan.

Strategic Action	Objectives	Effects of Strategic Actions and Objectives	Mitigation measures	Effect of the Mitigation Measures
			• Measures to protect the environment will be incorporated into any project or plan that has potential to adversely affect the integrity of a Natura 2000 sites. Examples of such measures are set out in guidance such as, but not limited to: • Guidelines on Protection of Fisheries During Construction Works In and Adjacent to Waters (IFI, 2016). • Environmental Good Practice on Site Guide (CIRIA, 2015).	

5 CONCLUSION

1.90 The proposed development is considered to have LSE to five Natura 2000 sites within 5 km of the Site. This report has detailed the potential impacts relative to the Natura 2000 conservation objectives of their respective QI.

1.91 The mitigation measures outlined in this report, if fully implemented, are considered to be sufficient to prevent any effect on QI or the integrity of the Natura 2000 sites identified as potentially affected by the project. These Natura 2000 sites are as follows:

- Moore Hall House (Lough Carra) SAC.
- Lough Carra/ Mask Complex SAC.
- Lough Carra SPA.
- Lough Mask SPA.
- Towerhill House SAC.

1.92 Based on the information set out in this report as well as the other documents accompanying the planning application, we submit that the competent authority has sufficient information to allow them to determine, with reasonable scientific certainty, that the proposed development, individually or in combination with other plans or projects, will have no adverse effect on the integrity of any European (Natura 2000) sites.

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National Parks and Wildlife Services Protected Sites https://www.npws.ie/protected-sites

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http://www.irishstatutebook.ie/eli/2011/si/477/made/en/pdf

APPENDIX A - RELEVANT LEGISLATION

European Nature Directives (Habitats and Birds)

The Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora) forms the basis for the designation of Special Areas of Conservation. Similarly, Special Protection Areas are classified under the Birds Directive (Council Directive 2009/147/EEC on the Conservation of Wild Birds). Collectively, Special Areas of Conservation (SAC) and Special Protection Areas (SPA) are referred to as the Natura 2000 network. In general terms, they are considered to be of exceptional importance for rare, endangered, or vulnerable habitats and species within the European Community.

Under Article 6(3) of the Habitats Directive an appropriate assessment must be undertaken for any plan or project that is likely to have a significant effect on the conservation objectives of a Natura 2000 site. An appropriate assessment is an evaluation of the potential impacts of a plan or project on the conservation objectives of a Natura 2000 site[23], and the development, where necessary, of mitigation or avoidance measures to preclude negative effects.

Article 6, paragraph 3 of the EC Habitats Directive 92/43/EEC ("the Habitats Directive") states that:

> "*Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public*"

The Habitats Directive is transposed into Irish law by the EC (Birds and Natural Habitats) Regulations 2011 – 2015. Part XAB of the Planning and Development Acts 2000 to 2020 transposes Article 6(3) and 6(4) of the Habitats Directive in respect of land use plans and proposed projects requiring development consent.

EC (Birds and Natural Habitats) Regulations 2011 to 2015 – Part 5

Part 5 of the EC (Birds and Natural Habitats) Regulations 2011 – 2015 sets out the circumstances under which an 'appropriate assessment' is required. Section 42(1) requires that '*a screening for Appropriate Assessment of a plan or project for which an application for consent is received, or which a public authority wishes to undertake or adopt, and which is not directly connected with or necessary to the management of the site as a European Site, shall be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that plan or project, individually or in combination with other plans or projects is likely to have a significant effect on the European site.*'

Section 42(2) expands on this, stipulating that a public authority must carry out a screening for Appropriate Assessment before consent for a plan or project is given, or a decision to undertake or adopt a plan or project is taken. To assist a public authority to discharge its duty in this respect, Section 42(3)(a) gives them the authority to direct a third party to provide a Natura Impact Statement and Section 42(3)(b) allows them to request any additional information that is considered necessary for the purposes of undertaking a screening assessment.

Section 42(6) requires that '*the public authority shall determine that an Appropriate Assessment of a plan or project is required where the plan or project is not directly connected with or necessary to the management of the site as a European Site and if it cannot be excluded, on the basis of objective scientific information following*

[23] Also referred to as European Sites in the Planning and Development Acts 2000 – 2020.

screening under this Regulation, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site'.

Planning and Development Act 2000 (as amended)[24] - PART XAB

The relevant sections of Part XAB of the Planning and Development Act 2000 (as amended) are set out below.

6.1.1 Screening for appropriate assessment

Section 177U requires that— (1) *A screening for appropriate assessment of a draft Land use plan or application for consent for proposed project shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that Land use plan or proposed project, individually or in combination with another plan or project is likely to have a significant effect on the European site.*

(2) *A competent authority shall carry out a screening for appropriate assessment under subsection (1) before—*

(a) a Land use plan is made including, where appropriate, before a decision on appeal in relation to a draft strategic development zone is made, or

(b) consent for a proposed project is given.

(3) In carrying out screening for appropriate assessment of a proposed project a competent authority may request such information from the applicant as it may consider necessary to enable it to carry out that screening, and may consult with such persons as it considers appropriate and where the applicant does not provide the information within the period specified, or any further period as may be specified by the authority, the application for consent for the proposed project shall be deemed to be withdrawn.

(4) The competent authority shall determine that an appropriate assessment of a draft Land use plan or a proposed project, as the case may be, is required if it cannot be excluded, on the basis of objective information, that the draft Land use plan or proposed project, individually or in combination with other plans or projects, will have a significant effect on a European site.

(5) The competent authority shall determine that an appropriate assessment of a draft Land use plan or a proposed project, as the case may be, is not required if it can be excluded, on the basis of objective information, that the draft Land use plan or proposed project, individually or in combination with other plans or projects, will have a significant effect on a European site.

(6) (a) Where, in relation to a proposed project, a competent authority makes a determination that an appropriate assessment is required, the competent authority shall give notice of the determination, including reasons for the determination of the competent authority, to the following—

(i) the applicant,

(ii) if appropriate, any person who made submissions or observations in relation to the application to the competent authority, or

(iii) if appropriate, any party to an appeal or referral.

(b) Where a competent authority has determined that an appropriate assessment is required in respect of a proposed project it may direct in the notice issued under paragraph (a) that a Natura impact statement is required.

(c) Paragraph (a) shall not apply in a case where the application for consent for the proposed project was accompanied by a Natura impact statement.

[24] http://revisedacts.lawreform.ie/eli/2000/act/30/revised/en/html (Updated to 24 September 2020)

(7) A competent authority shall, as soon as may be after making the Land use plan or making a decision in relation to the application for consent for proposed project, make available for inspection by members of the public during office hours at the offices of the authority, and may also publish on the internet —

(a) any determination that it makes in relation to a draft Land use plan under subsection (4) or (5) as the case may be, and reasons for that determination, and

(b) any notice that it issues under subsection (6) in relation to a proposed project.

(8) In this section 'consent for proposed project' means, as appropriate —

(a) a grant of permission,

(b) a decision of the Board to grant permission on a planning application or an appeal,

(c) consent for development under Part IX,

(d) approval for development that may be carried out by a local authority under Part X or Part XAB or development that may be carried out under Part XI,

(e) approval for development on the foreshore under Part XV,

(f) approval for development under section 43 of the Act of 2001,

(g) approval for development under section 51 of the Roads Act 1993, or

(h) a substitute consent under Part XA.

(9) In deciding upon a declaration or a referral under section 5 of this Act a planning authority or the Board, as the case may be, shall where appropriate, conduct a screening for appropriate assessment in accordance with the provisions of this section.

(10) In deciding upon an application under section 176A or a determination review or an application referral under section 176C, a planning authority or the Board, as the case may be, shall, where appropriate, conduct a screening for appropriate assessment in accordance with the provisions of this section.

6.1.2 Natura impact report and natura impact statement

Section 177T states that— *(1) (a) A Natura impact report means a statement for the purposes of Article 6 of the Habitats Directive, of the implications of a Land use plan, on its own or in combination with other plans or projects, for one or more than one F722 **[** European site], in view of the conservation objectives of the site or sites.*

*(b) A Natura impact statement means a statement, for the purposes of Article 6 of the Habitats Directive, of the implications of a proposed development, on its own or in combination with other plans or projects, for one or more than one F722 **[** European site], in view of the conservation objectives of the site or sites.*

*(2) Without prejudice to the generality of subsection (1) , a Natura impact report or a Natura impact statement, as the case may be, shall include a report of a scientific examination of evidence and data, carried out by competent persons to identify and classify any implications for one or more than one F722 **[** European site **]** in view of the conservation objectives of the site or sites.*

*(3) F723 **[** As respects a draft National Planning Framework, the Government shall prepare a Natura impact report in relation to a draft Land use plan and the following bodies shall also prepare a Natura impact report in relation to a draft Land use plan] —*

*F724 **[** (a) as respects a draft regional spatial and economic strategy, the regional assembly for whose area the draft strategy is made,]*

*F725 **[** (aa) as respects a draft National Planning Framework, the Minister.]*

(b) as respects a draft planning scheme in respect of all or any part of a strategic development zone, the planning authority (which term shall be construed in accordance with section 168(5)) for whose area the draft scheme is made,

(c) as respects a draft development plan or draft variation of a development plan, the planning authority for whose area the draft plan or draft variation is made, and

(d) as respects a draft local area plan, the planning authority in whose area the local area concerned is situate.

(4) The applicant for consent for proposed development may, or if directed in accordance with subsection (5) by a competent authority, shall furnish a Natura impact statement to the competent authority in relation to the proposed development.

(5) At any time following an application for consent for proposed development a competent authority may give a notice in writing to the applicant concerned, directing him or her to furnish a Natura impact statement F726 ***[*** *…].*

F722 ***[*** *(6) Where an applicant for consent for proposed development who, having been directed in accordance with subsection (5) , fails to furnish a Natura impact statement within the period specified in the notice, or any further period as may be specified by the competent authority, the application for consent for the proposed development shall be deemed to be withdrawn.* ***]***

(7) (a) Without prejudice to subsection (1) a Natura impact report or a Natura impact statement shall include all information prescribed by regulations under section 177AD.

(b) Where appropriate, a Natura impact report or a Natura impact statement shall include such other information or data as the competent authority considers necessary to enable it to ascertain if the draft Land use plan or proposed development will not affect the integrity of the site.

Project Ireland 2040 – The National Planning Framework (2018)

The National Planning Framework (NPF) sets the overarching context for planning policy in Ireland and has identified the requirement for growth of approximately one million additional people in Ireland by 2040. This means planning for a substantial increase in the number of people and jobs on the island of Ireland.

For northern and western region assembly area which includes County Mayo this means:

- A target of 150,000-175,000 additional people i.e., a population of around 1 million.
- Around 110,000 additional people in employment i.e., 450,000 in total.

Under the objective of '**Securing Compact and Sustainable Growth,'** the NPF states that the physical form of urban development in Ireland is one of our greatest national development challenges. It states that more than anything else, getting the physical form and location of future development right offers the best prospects for unlocking regional potential.

The strategy as set out in the NPF is 'compact development that focuses on reusing previously developed land. This requires focus on four key areas:

The 'liveability' or quality of life of urban places;

Making the continuous regeneration and development of existing built-up areas as attractive and as viable as greenfield development;

Tackling legacies such as concentrations of disadvantage in central urban areas;

Linking regeneration and redevelopment initiatives to climate action.

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