

## **Appropriate Assessment Screening Report**

As required under Article 6(3) of the Habitats Directive

(Council Directive 92/43/EEC)

**Construction of a 4 – Bedroom dwelling, together with a domestic shed,  
proprietary effluent treatment plant, percolation area and ancillary works,  
at Liskilleen, Ballinrobe, Co. Mayo**

On behalf of Donal McCormack Design,

for

Mayo County Council

# 1. Introduction

This Appropriate Assessment Screening Report has been prepared by Loughman & O'Clubháin on behalf of **Donal McCormack Design** for his client **Mayo County Council** who is Pursuant to the requirements of Section 179 of the Planning and Development Acts, 2000-2018 and Part 8 of the Planning and Development Regulations 2001 – 2019, as amended applying for planning permission “to construct a 4 bedroom dwelling house, domestic shed, new sewage treatment system with all associated site works and services (Gross Site area: 3210 sq m 0.321 Ha in the townland of Liskilleen, Ballinrobe, Co. Mayo. The site for the proposed development lies approximately (nearest point) 2.5 km from the Lough Carra/Mask Complex SAC (Site Code: 001774) a site which has been designated under the EU Habitats Directive and the EU Birds Directive, and so it is necessary that the potential impacts of the proposed works be assessed in accordance with Article 6 of the habitats Directive. This report provides the information necessary for the competent authority to complete an Appropriate Assessment of the potential impacts of the proposed works on sites of European importance in the area.

## 1. 1 Legislative Background

### 1.1.1 EU Nature Conservation Legislation and Natura 2000 Sites

There are three main types of designation for nature conservation in Ireland: Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Natural Heritage Areas (NHAs). NHAs are designated under the Irish Wildlife Act 1976 (amended 2000). SACs and SPAs are designated under European legislation, the EU Habitats Directive 92/43/EEC (transposed into Irish law in the European Union (natural Habitats) Regulations, 1997 as amended in 1998 and 2005) and the EU Birds Directive 79/409/EEC, respectively. These European designated sites (SACs and SPAs) are also known as Natura 2000 sites. This means that they are part of the Natura 2000 network, a network of important ecological sites across the European Union.

Sites are designated on the basis of the presence of certain ‘Qualifying Features’, i.e. the habitats listed under Annex I and the species listed under Annex II of the EU Habitats Directive.

Once a site is designated as a SAC and publicly advertised it is legally protected and becomes a proposed candidate SAC (pcSAC). A three month period follows during which land owners may lodge an objection to the designation. Details of each proposed SAC are then given to the EU Commission, and thereafter the site is called a “candidate SAC”. Once the sites are approved by the commission, they are formally designated by the Minister.

### 1.1.2 Appropriate Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites

Due to the proximity of the proposed development site to a candidate Special Area of Conservation, also known as a Natura 2000 site, an Appropriate Assessment may be required under the Habitats Directive 92/43/EEC, Article 6(3) and (4), Assessment of Plans and Projects Significantly Affecting Natura 2000

Sites. Such assessments are required where it is identified that a proposed plan or project could have significant impact on a Natura 2000 site. Articles 6(3) and (4) of the Directive, state the following:

**Article 6(3):** *“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... 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...”*

**Article 6(4):** *“If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest... the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected...”*

To determine whether an Appropriate Assessment is required, an initial screening assessment must be conducted and issued to the Department of the Environment, Heritage and Local Government (DoEHLG) Development Applications Unit (DAU).

## 1.2 Methodology

### 1.2.1 Appropriate Assessment Stages

This screening exercise will be conducted in line with the recommendation and protocol set out in the Guidance from the Commission (EC, 2002). This protocol involves a four-stage process to complete an Appropriate Assessment. At each stage, the findings of certain issues and tests will determine whether the next stage in the process is required.

#### **Stage 1: Screening**

This step consists of examining the likely potential impacts of a project or plan, alone or in combination with other projects upon a Natura 2000 site or sites, and considers whether these impacts may be considered significant. If no significant impacts are foreseen, then a ‘finding of no significant effects’ (FONSE) statement is issued to the appropriate authority, and the process is complete. If the effects are considered significant or their significance is unknown, then the process moves on to Stage 2.

#### **Stage 2: Appropriate Assessment**

Where the screening process had identified potential impacts which are considered significant or unknown, this process examines these potential impacts in detail, in relation to the conservation interests of the Natura 2000 site or sites. Mitigation measures may be suggested to reduce the likelihood or severity of these impacts. If the impacts are still considered to be significant or unknown after this stage is complete, then alternative solutions must be considered (Stage 3).

### Stage 3: Assessment of Alternative Solutions

If the potential impacts are still considered to be significant or unknown after the Appropriate Assessment stage, then alternative ways of implementing the project are considered at this stage. If no alternative solutions are possible, then it is considered whether the project or plan may go ahead regardless, if imperative reasons of overriding public interest (IROPI) are found.

### Stage 4: Overriding public interest (IROPI)

If significant negative impacts on the Natura 2000 site are unavoidable, and no alternative solutions may be found, then this stage involves the consideration of whether the project or plan may go ahead despite these effects, for 'imperative reasons of overriding public interest' (IROPI).

The results of a Stage 1 (Screening) Exercise are detailed in **Section 2** of this report.

## 2. Stage 1: Screening For Appropriate Assessment

### 2.1 Description of the Plan or Project

Construction of a 4 – Bedroom dwelling, together with a domestic shed, proprietary effluent treatment plant, peat based filtration, percolation area and ancillary works, at a green field site at Liskillen, Ballinrobe, Co. Mayo. The site layout is contained in **Appendix A** to this report.

### 2.2 Description of the Existing Environment

#### 2.2.1 Site Location in relation to Natura 2000 Sites

The proposed site Layout lies in the townland of Liskilleen (Grid Ref. E520667 N768471). The site for the proposed development lies approximately 2.5 km east from the Lough Carra/Mask Complex SAC (Site Code: 001774) and Lough Mask SPA (Site Code: 004062) (see Figure 2.1 below).

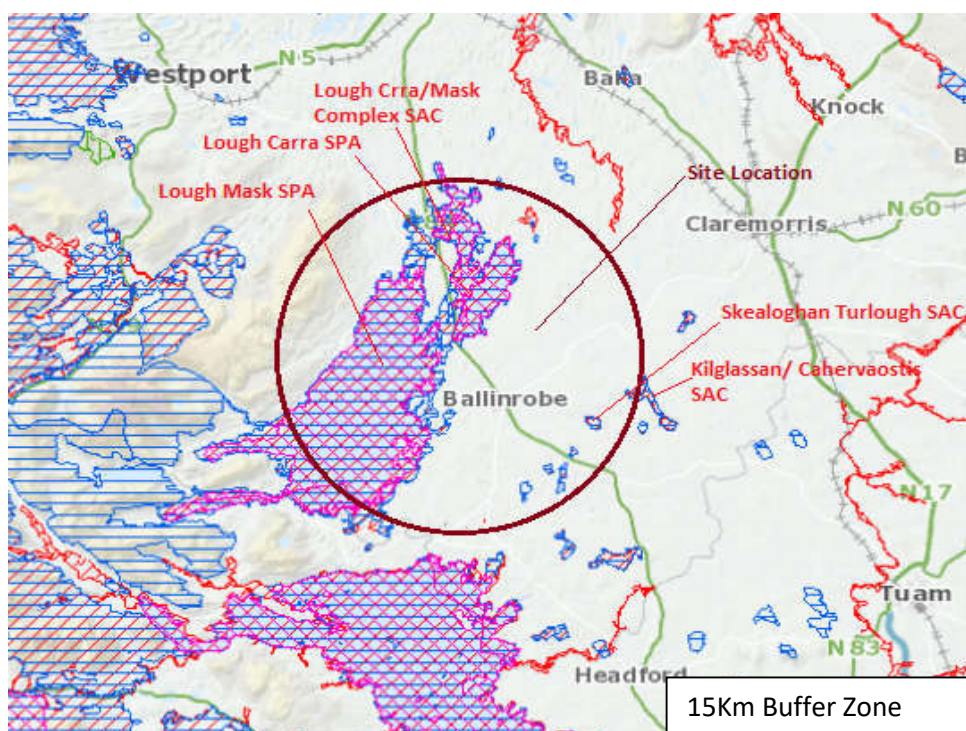


**Figure 2.1: Site Location in Relation to the Lough Carra/Mask SAC and Lough Mask SPA**

Other Natura 2000 sites within 15 km buffer of the proposed development but screened out due to a lack of connectivity are listed in Table 2.1 and Figure 2.2. Those highlighted are evaluated are part of this screening assessment.

**Table 2.1 Protected habitats in the vicinity of the proposed development**

| Name of Site                       | Site Code | Distance to proposed development |
|------------------------------------|-----------|----------------------------------|
| Lough Carra                        | 004051    | 2.5km                            |
| Lough Carra Lough Mask Complex SAC | 001774    | 2.5km                            |
| Lough Mask SPA                     | 004062    | 5.5km                            |
| Clyard Kettle- Holes SAC           | 000480    | 8km                              |
| Skealaghan Turlough                | 000451    | 6.65km                           |
| Kilglassan/Caheravoostia           | 000504    | 8km                              |
|                                    |           |                                  |



**Figure 2.2: 15 km Buffer Surrounding Proposed Site**

## 2.2.2 Brief Description of the Natura 2000 Sites which may be affected

### *Qualifying Features*

Natura 2000 sites are designated on the presence of certain habitats and species which are afforded protected under the Birds and Habitats Directive. These habitats and species are regarded as 'qualifying features' of the Natura 2000 sites. The following section provides details on the qualifying features of

the Natura 2000 sites in question – the Lough Carra/Mask Complex SAC and Lough Mask SPA. For habitats, the percentage cover and a representivity value are given. Representivity is defined as a measure of how ‘typical’ an individual habitat is of that habitat type, and is ranked on a scale of A to D where: A – Excellent, B – Good, C – Significant and D – non- significant. The NPWS site synopsis for the designated site is given as Appendix B to this report.

**Table 2.2 Lough Carra/Mask Complex SAC Habitat Information**

| Habitat Code | Habitat name<br>(SAC Qualifying Feature) | Cover (%) | Representivity |
|--------------|--|-----------|----------------|
| 3180         | Turlough                                 | 93        | A              |

For species, a value is given for ‘Population Significance’. This value is based on the relative density or size of the population of that species within Natura 2000 site that of the national population. Population Significance is ranked on a scale from A to D, where: A – 100%>=p>15%, B – 15%>=p>2%, C – 2%>=p>0% and D – non– significant population.

### ***Potential Pressures and Threats to the Natura 2000 Sites***

The European Nature Information System (EUNIS) website contains data on all Natura 2000 sites, including details of the main threats to and pressures on their qualifying features. Potential threats to and pressures on the qualifying features of the Lough Carra/Mask Complex SAC and Lough Mask SPA are listed in table 2.3 below.

**Table 2.3 Potential Pressures and Threats to the Lough Carra/Mask Complex SAC & Lough Mask SPA Natura 2000 Sites**

| Activity      | Location | Intensity | Influence |
|---------------|----------|-----------|-----------|
| Grazing       | Inside   | High      | Negative  |
| Hunting       | Inside   | Low       | Negative  |
| Drainage      | Inside   | Medium    | Negative  |
| Fertilisation | Outside  | Low       | Negative  |
| Grazing       | Outside  | High      | Negative  |
| Grazing       | Inside   | High      | Positive  |
| Grazing       | Outside  | High      | Positive  |

### ***Conservation Objectives of the Natura 2000 Sites***

Once a site has been designated as an SAC, a management plan should be put together for the site which sets out the Conservation Objectives for the site. Every effort should then be made to ensure that these objectives are fulfilled, in order to prevent potential impacts to the qualifying features of the site and maintain as far as possible their favourable conservation status.

European and national legislation places a collective obligation on Ireland and its citizens to maintain at favourable conservation status sites designated as Special Areas of Conservation and Special Protection Areas. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

The conservation objectives form the basis of the Appropriate Assessment as it is against these objectives that the assessment is made. The overall aim of the Habitat Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network.

Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within range, is stable or increasing, and
- the ecological factors that 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 data on the species concerned indicate that it is maintaining itself, 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.

Water Management Unit [WMU] plans have been published for the Lough Carra/Mask Complex and Lough Mask SPA Natura 2000 Sites. The NPWS has published a list of conservation objectives for each SAC and SPA in the country. The conservation objectives for the Lough Carra/Mask Complex and Lough Mask SPA Natura 2000 sites are as follows:

- to maintain the Annex I habitat for which the SAC has been designated under the Habitats Directive, namely: Turlough
- Objective 2: To maintain the Annex I species for which the SPA has been designated under the Birds Directive, namely: Greenland White-fronted Goose (*Anser albifrons flavirostris*), Tundra Swan (*Cygnus columbianus bewickii*), Whooper Swan (*Cygnus cygnus*) and Golden Plover (*Pluvialis apricaria*).

### **Lough Carra/Mask Complex SAC**

Conservation Objectives for Lough Carra/Mask Complex SAC (Site Code 001774)

**Objective:** To maintain or restore the Qualifying Interests for which the SAC has been selected at favourable conservation status (see Table 2 & 3):

- 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 Isoetes-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]\*

#### **Qualifying Interests – Habitats – Lough Carra/Mask Complex SAC**

- Rhinolophus hipposideros (Lesser Horseshoe Bat) [1303]
- Lutra lutra (Otter) [1355]
- Drepanocladus vernicosus (Slender Green Feather-moss) [1393]

#### **Qualifying Interests – Species – Lough Carra/Mask Complex SAC**

### **Lough Mask SPA**

Conservation Objectives for Lough Mask SPA (Site Code 004062)

**Objective:** To maintain or restore the Qualifying Interests for which the SPA has been selected at favourable conservation status (see Table 4):

- 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]

#### **Qualifying Interests – Species – Lough Mask SPA**



## 2.3 Soils, Geology & Hydrology

The Geological Survey of Ireland (GSI) website was consulted for available geological/ hydrological information. The site is underlain by Dinantian Pure Bedded Limestones with deep well drained mineral (mainly basic) topsoil and subsoil derived chiefly from limestone.

The groundwater public viewer run by the GSI classifies the groundwater as having Extreme (E) vulnerability at this location. Vulnerability is a term used to represent the intrinsic geological and hydrogeological characteristics that determine the ease at which groundwater may be contaminated by human activities. The site lies within a Regionally Important Aquifer – Karstified (conduit).

Risk due to pluvial flooding is very low at the site. It is concluded that the entire development has a very low flood risk against the relevant flood mechanisms of combined fluvial and groundwater flooding and pluvial flooding. Flood risks at the subject site being low mitigation measures are not proposed.

## 2.4 Other Plans and Projects in the Area

It is a requirement of the Appropriate Assessment process to consider the ‘in combination’ effects of the proposed development with other plans and projects in the area. Table 2.6 below gives details of the other plans and projects in the area which may be affecting the Lough Carra/Mask Complex SAC and Lough Mask SPA.

Table 2.6: Other Plans and Projects Affecting the Rahasane SAC and SPA

| Name of Plan or Project   | Key policies/ issues/ objectives directly related to the relevant Natura 2000  | Potential cumulative or in-combination effects on the relevant Natura 2000 sites |
|---|--|--|
| Mayo County Development Plan 2014-2020<br>[2020 – 2026 Plan in preparation] | Designated Sites, Habitats and Species Policies and Objectives,<br>Natural Heritage and Biodiversity Policies and Objectives.<br>Natural Water Systems Policies.   | Positive Impact  |
| Western River Basin Management Plan 2018-2021                               | The Western International RBD Management Plan, sets out a number of objectives and measures for all water bodies in the Northwestern International Region.<br><br><b>Objectives:</b> Ensure that the status of water supporting protected areas is protected and (where necessary) improved.<br><br><b>Measures:</b> Implement 11 EU Directives, 9 other basic requirements. | Positive Impact  |

|   |   |                 |
|---|---|-----------------|
| NPWS Conservation Management Plans                      | Conservation Management Plans for the Lough Carra/Mask Complex and Lough Mask Natura 2000 sites published by the NPWS. Conservation objectives have been established for the sites.   | Positive Impact |
| Inland Fisheries Ireland (IFI) Corporate Plan 2020-2025 | <p><b>Goals:</b></p> <ul style="list-style-type: none"> <li>•to improve the protection and conservation of the resource</li> <li>•to develop and improve wild fish populations</li> <li>•to increase the number of anglers</li> <li>•to generate a better return for Ireland from the resource</li> </ul>   | Positive Impact |
| Planning Applications in the area                       | <p>A search was carried out on Mayo County Council's online planning query system. It was ascertained that there has been two other local planning application within the past 5 years in the townland of Srah:</p> <p>16/860 Retain as constructed existing dwelling house and all ancillary services. Granted</p> <p>18/434 Construction of domestic garage Granted</p> <p>19/180 Construct of a new single storey extension Granted</p> <p>20/183 Construct Agriculture slatted shed for the purpose of housing livestock Granted</p> <p>20/260 Construction extension and alteration to private house Granted</p> <p>A review of all planning applications in the agglomeration since 2016 (Source: Mayo County Council GIS database), shows no major development has been proposed that would affect the hydrology or water levels of sites of nature conservation interest or the habitats of protected species</p> | Neutral Impact  |

## 2.5 Archaeological/Historic Elements associated with the Area

This screening report does not assess the potential direct and indirect impact(s), if any, on the potential archaeological environment, protected structures and or designated national monuments. This report does highlight two such elements within 1km of the proposed site namely:

1. Ring Fort 150m NE of the proposed site rear boundary
2. Liskilleen Castle ruins located 400m due South of the proposed site.

## 2.6 Screening Matrix for Appropriate Assessment in line with EU Commission Guidance

Having established the extent of the proposed project and the details of the Natura 2000 site, a screening assessment for possible impacts can be generated. This section follows the format of the Screening Matrix provided in Annex 2 of the following document:

*“Assessments of plans and projects significantly affecting Natura 2000 sites – Methodology guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC European Commission 2001”.*

The findings of the screening matrix are summarised in table 2.7 below.

**Table 2.7 Stages 1 – Screening Matrix for the Proposed Development**

| Brief Description of the Project or Plan  |
|---|
| <p><b>Location:</b> The proposed site lies in the townland of Liskilleen (Grid Ref. X-520667 / Y-768471). The subject site was inspected on Wednesday 26th Aug 2020. Weather conditions were quite dry with intermittent misty showers. The walkover included a visit to the Ring Fort and Liskilleen Castle ruins.</p> <p><b>Distance from Designated Site:</b> The site for the proposed development lies approximately 2.5 km and 5.5km respectively from the Lough Carra/Mask Complex SAC (Site Code: 001774) and Lough Mask SPA (Site Code: 004062).</p> <p><b>Brief Description of the Project:</b> Planning permission is being sought “to construct a dwelling house, domestic garage, new sewage treatment system with all associated site works and services (Site area: 0.32ha). A Site Layout Plan for the proposed development is included as <b>Appendix A</b> to this report.</p>  |
| Brief Description of the Natura 2000 Site   |
| <p><b>Site Designation Status:</b> The Lough Carra/Mask Complex Special Area of Conservation (SAC Site Code 001774 and the Lough Mask SPA (Site Code: 004062) are designated under EU Habitats Directive (92/43/EEC).</p> <p><b>Qualifying Features</b></p> <p>The Lough Carra/Mask Complex SAC is of conservation significance due to the presence of six habitats listed under Annex I of the EU Habitats Directive.</p> <p>Lough Mask SPA is designated for the presence of three Annex I Bird Directive species occurring regularly.</p> <p><b>Qualifying Habitats</b></p> <p>Part of Lough Mask SPA is a Wildfowl Sanctuary.</p> <p><b>Lough Carra/Mask Complex SAC</b></p> <p>Turlough [3180] (EU Habitats Directive 92/43/EEC)</p> <p><b>Habitats and Species of Interest</b></p> <p>Several other habitats and species of conservation interest have been recorder from the Lough Carra/Mask Complex and Lough Mask SPA Natura 2000 sites. Full details of the sites are found in the Site Synopsis included as <b>Appendix B</b> to this report.</p> |

## ASSESSMENT CRITERIA

### Describe the Individual elements of the project likely to give rise to impacts on the Natura 2000 site

No impacts are expected on the Natura 2000 sites in question

### Describe any likely direct, indirect or secondary impacts of the project on the Natura 2000 site by virtue of the following:

#### Size and Scale

The development site comprises an overall area of 0.32 Ha. At this size, and due to the fact that the work will be located entirely outside the designated area, it is not expected that the development will have any significant impact (direct, indirect or secondary in nature) on the Natura 2000 site in this regard.

#### Land-Take

The proposed works will be entirely located outside the designated sites and so there will be no impacts in this regard.

#### Distance from Natura 2000 site or key features of the site

The site for the proposed development is located approximately 2.5 km from the Lough Carra/Mask Complex SAC (Site Code: 001774) and 5.5km from Lough Mask SPA (Site Code: 004062), the Natura 2000 sites in question. At this distance, no impacts are expected on the Natura 2000 sites in this regard.

The site lies to the West of an existing Ring Fort (3 ring) approximately 125m from the rear site boundary. In addition the site lies 400m North of the ruins of Liskilleen Castel. Reference photographs in **Appendix D**. The ring fort and the castle ruins are not governed or designated under European legislation, the EU Habitats Directive 92/43/EEC (transposed into Irish law in the European Union (natural Habitats) Regulations, 1997 as amended in 1998 and 2005) and the EU Birds Directive 79/409/EEC, respectively.

#### Resource Requirements

It is not expected that the proposed development will have any significant impact (direct, indirect or secondary in nature) on the designated sites in this regard.

#### Emission

The EPA Site Suitability Assessment conducted for the proposed development concluded that the site is suitable for the discharge of treated effluent. It is proposed to install a secondary wastewater treatment system in conjunction with soil polishing filter to satisfy the GWPR R2/2. No water was detected in the trail at the time of inspection; a "T" value 20 was recorded demonstrating satisfactory infiltration capability of the soil. This system will be desludged and maintained annually in order to ensure that it is functioning properly. Provided this system is installed and maintained properly, it is not expected that emissions arising from the development will result in any significant adverse effects on the Natura 2000 sites.

#### Excavation requirements

No impacts are expected on the Natura 2000 site in this regard.

#### Transportation Requirements

During the construction phase of the proposed development, there will be a slight increase in the volume of traffic in the area for a short time. It is not expected that this slight increase will result in direct, indirect or secondary impacts on the Natura 2000 sites.

**Duration of construction, operation, decommissioning**

The construction phase of the proposed development will last approximately 12 months. It is expected that the dwelling house will remain in use for at least 50 years. Neither the construction, operation nor the eventual decommissioning of the proposed development is likely to result in direct, indirect or secondary in nature impacts on the Nature 2000 site.

**Describe any likely changes to the site arising as a result of the following**

**Reduction of Habitats**

There will be no changes in this respect.

**Disturbance to Key Species**

There will be no changes in this respect.

**Habitat or Species Fragmentation**

There will be no changes in this respect.

**Reduction in species density**

There will be no changes in this respect.

**Changes in key indication of conservatory value**

There will be no changes in this respect.

**Climate change**

There will be no changes in this respect.

**Describe any likely impacts on the Natura 2000 site as a whole in terms of the following**

**Interference with key relationships that define the structure and function of the site**

No potential impacts which are likely to interfere with the key relationships that define the structure or function of the site is expected

**Provide Indicators of significance as a result of the identification of effects set out above in terms of the following**

**Loss**

No loss expected

**Fragmentation**

No fragmentation is expected

**Disruption**

No disruption is expected

**Disturbance**

No disturbance is expected

**Change to key elements of the site**

No change is expected

**Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.**

It is not considered that the proposed development will have any significant impacts on the Lough Carra/Mask Complex SAC and Lough Mask SPA, alone or in combination with the other plans or projects in the area (outlined in Section 2.3 of this report).

### 3. Conclusions

This report details the results of a screening exercise carried out for a proposed development in Liskilleen. Planning is being sought “to construct a dwelling house, domestic shed, new sewage treatment system, percolation area and for all associated site works and services (Gross Site area is 0.32ha). A Site Layout Plan for the proposed development is included as Appendix A to this report. The screening exercise examined impacts on the Lough Carra/Mask Complex SAC and Lough Mask SPA.

The site for the proposed development is located approximately 2.5 km east from the Lough Carra/Mask Complex SAC and 5.5km from Lough Mask SPA. At this distance, it is not expected that the proposed development will give rise to any direct impacts on the Natura 2000 sites in question.

A review of the OPW Flood Maps reveals that the site is not located in a fluvial flood zone. The site layout report confirms that the “proposed wastewater system is to the east of the proposed dwelling house which includes additional filtration before discharging to groundwater to approximately 45 m<sup>2</sup> of percolation area. In the site assessment report no water was witnessed in the trial hole and the design conforms to the GWPR of R2/2 for the area. The risk due to pluvial flooding is very low. The OPW flood map for the locality was inspected; no flooding or recurring events were recorded for Liskilleen. Flood risks at the subject site being low mitigation measures are not proposed.

The EPA Site Suitability Assessment conducted for the proposed development concluded that the site is suitable for the discharge of treated effluent. It is proposed to install a proprietary wastewater treatment system in conjunction with a soil polishing filter. This system will be desludged and maintained annually in order to ensure that it is functioning properly. Provided this system is installed and maintained properly (annual maintenance contract), it is not expected that emissions arising from the development will result in any significant adverse effects on the Natura 2000 sites.

There is no hydrological link from the site to the Lough Carra/Mask Complex SAC at the distances identified.

Therefore, the conclusion of this screening exercise is that no significant effects are expected on the qualifying interests or conservation objectives of the Lough Carra/Mask Complex SAC and Lough Mask SPA, as a result of the proposed development in question, alone or in combination with the other plans and projects in the area, and therefore that a Natura Impact Statement is not required in this case. This report is therefore issued as a ‘Finding of No Significant Effects’ (FONSE) statement, in accordance with the EU Commission’s methodological guidance (EC, 2001).

*“The scope of this report is to provide the necessary information to the competent authority, to assess whether the proposed development alone and in combination with other projects, could have significant effects on Natura 2000 sites in the area in view of the sites conservation objectives, in accordance with Article 6 of the Habitats Directive, and does not purport to be an ecological assessment of the subject site”.*

## References

Department of Environment, Heritage and Local Government, 2009. Appropriate Assessments of Planning and Projects in Ireland – Guidance for Planning Authorities.

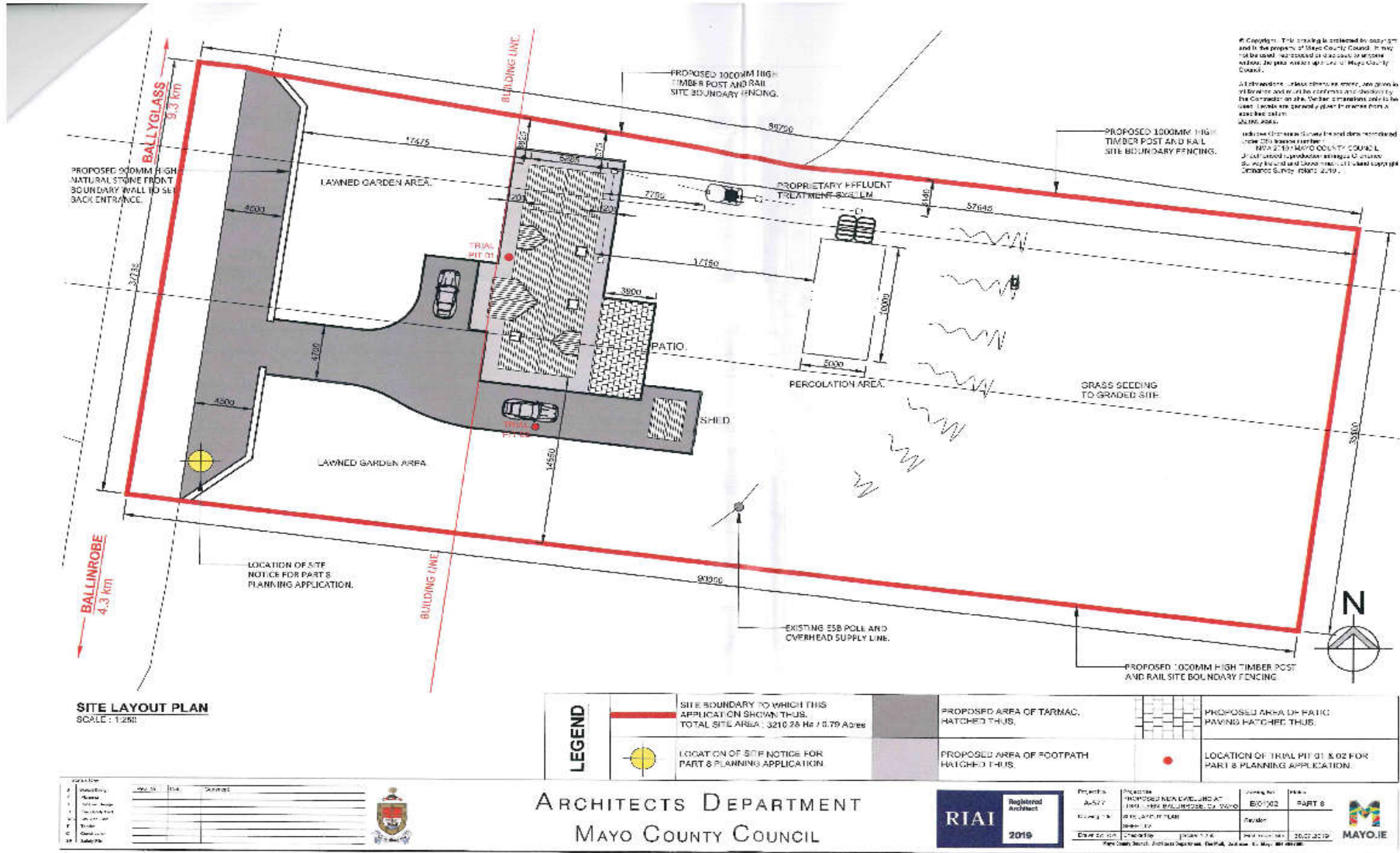
EC (2000) Managing Natura 2000 Sites: The provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC

EC (2001) Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC

National Parks and Wildlife Service, 2009. Checklist of Protected & Rare species in Ireland

<http://www.floodmaps.ie>

## APPENDIX A: Site Layout Plan (Courtesy of Mayo County Council)





## **APPENDIX B**

### **SITE NAME: LOUGH CARRA/MASK COMPLEX**

#### **SITE CODE: 001774**

This site is dominated by two large lakes, Lough Mask and Lough Carra, and includes the smaller Cloon Lough. On the western side, the site is overlooked by the Partry Mountains, while to the east the landscape is largely low-lying agricultural land. The nearest large town is Ballinrobe which is about 4 km east of Lough Mask. The general geological character of the area is Carboniferous limestones, with some shales and sandstones on the western side of Lough Mask.

The underlying geology results in a great diversity of habitats, which support many scarce and rare plants and animals. Six habitats which are on Annex I of the EU Habitats Directive are listed for this site, including two which are priority habitats - limestone pavement and Cladium fen.

Lough Mask, at over 8,000 ha, is the sixth largest lake in the country and with a maximum depth of 58 m it is one of the deepest. It is an excellent example of a lowland oligotrophic lake. Aquatic and wetland plant species present which are characteristic of this habitat include several Pondweed (*Potamogeton*) species, Water Lobelia (*Lobelia dortmanna*) and Shoreweed (*Littorella uniflora*). The eastern part of the lake is shallow and is edged by a lowlying shoreline which is subject to winter flooding. An intricate mixture of plant communities has developed on the limestone, with bare pavement, scrub-dominated pavement, dry grassland and heath. A variety of wetland habitats are also present, along with significant amounts of deciduous woodland along the eastern and southern shores. The western shoreline is less diverse and lacks the limestone communities. However, the fast-flowing Owenbrin River has created at its mouth an interesting delta of coarse sandy sediment.

Lough Carra, which is hierologically 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. It has well developed stonewort communities in the submerged zones, with *Chara curta*, *C. desmacantha*, *C. rudis* and *C. contraria* recorded. Lough Carra, like the eastern and southern shores of Mask, is fringed by a diverse complex of limestone and wetland habitats.

The limestone pavement within this site represents the northern limit of the limestones of Clare and Galway. The limestone is variable in character, from open bare pavement to areas covered with dense scrub. Associated with the pavement are areas of dry calcareous grassland and dry heath. Characteristic species present include Bloody Crane's-bill (*Geranium sanguineum*), Yellow-wort (*Blackstonia perfoliata*), Carlina Thistle (*Carlina vulgaris*), Blue Fleabane (*Erigeron acer*), Wild Madder (*Rubia peregrina*), Rustyback (*Ceterach officinarum*) and Quaking-grass (*Briza media*). Several plant species, notably Spring Gentian (*Gentiana verna*) and Dense-flowered Orchid (*Neotinea maculata*), occur at the northern limit of their distribution. The area is also noted for its diversity of orchid species. Scrub

vegetation is variable in character, with extensive areas dominated by Hazel (*Corylus avellana*) and Hawthorn (*Crataegus monogyna*), with Buckthorn (*Rhamnus catharticus*), Alder Buckthorn (*Frangula alnus*), Spindle (*Euonymus europaeus*) and Ash (*Fraxinus excelsior*). The dry heath is well developed in places and is characterised by Gorse (*Ulex europaeus*), Bell Heather (*Erica cinerea*), Heather (*Calluna vulgaris*) and St. Dabeoc's Heath

(*Dabeocia cantabrica*). The diminutive orchid Lesser Twayblade (*Listera cordata*) occurs within the heath communities.

A wide range of wetland habitats occur around Lough Carra and along parts of the eastern and southern shores of Lough Mask, including Cladium fen and alkaline fen, both listed as Annex I habitats on the EU Habitats Directive. The Cladium occurs as pure stands in places but also intermixed with Black Bog-rush (*Schoenus nigricans*), Common Club-rush (*Scirpus lacustris*), Common Reed (*Phragmites australis*) and a number of sedge species (*Carex* spp.). The alkaline fens are more extensive than the Cladium fens and here Black Bog-rush is a dominant species. A rich diversity of flowering plant occurs in the fen communities. In addition to the fen habitats, there are sparse but widespread reed swamps, wet grassland and some freshwater marsh communities around the lake shores.

Broad-leaved deciduous woodland occurs fairly frequently around much of the shores of the lakes and on some of the islands. This is often scrub-type woodland, which may be either dry and dominated by Hazel, Hawthorn and Ash, or wet and dominated by Birch (*Betula* spp.), Willow (*Salix* spp.) and Alder (*Alnus glutinosa*). In places the woodland is more developed and includes Sessile Oak (*Quercus petraea*), Holly (*Ilex aquifolium*) and Rowan (*Sorbus aucuparia*).

A high concentration of rare plants are found at this site. Five species protected under the Flora Protection Order (1987) occur: Irish St. John's-wort (*Hypericum canadense*), Chives (*Allium schoenoprasum*), Pillwort (*Pilularia globulifera*), Irish Lady's-tresses (*Spiranthes romanzoffiana*), and Small Cudweed (*Logfia minima*). Two other Red Data Book plants, Alder Buckthorn (*Frangula alnus*) and Bird's-nest Orchid (*Neottia nidus-avis*), also occur, along with two Red Data Book Stonewort species - *Chara curta* and *Chara rudis*.

A large loft in the stable block of Curramore House provides a summer breeding site of the Lesser Horseshoe Bat (*Rhinolophus hipposideros*), a species listed on Annex II of the EU Habitats Directive. The bats gain access to the loft through windows that extend from the ground floor to the loft area. The building is surrounded by mixed woods and is close to the shores of Lough Mask; both of these habitats provide ideal foraging habitat for the bats. In 1993 more than 100 bats were counted at this site, which makes it of international importance. A second internationally important summer roost of Lesser Horseshoe Bats occurs within the site at Ballykyne, near Clonbur. Over 150 bats have been counted at this site in recent years.

The site provide excellent habitat for Otter (*Lutra lutra*), also an Annex II species on the Habitats Directive, and the area has Pine Marten (*Martes martes*), a species listed in the Irish Red Data Book.

The site has important bird interests, both in winter and summer. It provides feeding areas for part of the Erriff/Derrycraff population of Greenland White-fronted Geese. This flock has declined somewhat in

recent years but is still of national importance, with an average spring peak from 1989/94 of 124 birds. The following count figures are the averages from surveys in January 1995 and January 1996: Wigeon 167; Mallard 397; Shoveler 57; Pochard 91; Tufted Duck 757; Goldeneye 158; Lapwing 233; Curlew 118. Also, 68 Whooper Swan and 25 Gadwall were recorded in January 1996. The Shoveler, Tufted Duck and Goldeneye populations are of national importance. Both lakes are traditional sites for breeding gulls and terns. In 1995, 44 pairs of Common Tern nested at Lough Mask, while in 1992 a census of gulls at both lakes resulted in the following: Black-headed Gull 1,451 pairs, Common Gull 407 pairs and Lesser Black-backed Gull 361 pairs. The Common Gull colony represents 11.3% of the national total, and the Lesser Black-backed Gull colony is 6.9% of the total.

The deep waters of Lough Mask are home to a population of the glacial relict Arctic Char (*Salvelinus alpinus*), and a rare shrimp (*Niphargus* spp.) is also found in these waters. Lough Mask is a very important Brown Trout fishery. White-clawed Crayfish (*Austropotamobius pallipes*), a species listed on Annex II of the Habitats Directive, has been recorded from Lough Carra.

This site is of considerable conservation importance as it has good examples of six habitats listed on Annex I of the EU Habitats Directive: lowland oligotrophic lakes, marl lakes, limestone pavement, dry heath, Cladium fen and alkaline fen. Some of these habitats are amongst the best examples of their kind in the country. It also has two Annex II mammal species and an Annex II invertebrate. The site is of ornithological importance for both wintering and breeding birds, with three Annex I Bird Directive species occurring regularly. A relatively large number of other nationally rare or localised plant and animal species occur, including the glacial relict Arctic Char.

**SITE NAME: LOUGH MASK SPA**

**SITE CODE: 004062**

Lough Mask, at over 8,000 ha, is the sixth largest lake in the country. It is located in south Co. Mayo with a small area extending across the border into Co. Galway. It extends for over 14 km along its long axis and is on average about 5 km in width. The underlying geology is of Carboniferous limestones, with some shales and sandstones. The main inflowing rivers are the Cloon and Robe, and the stream from Lough Carra to the north-east. The main outflow is to Lough Corrib to the south. The eastern part of the lake is edged by a low-lying shoreline which is subject to winter flooding but is considerably deeper on the western side where there is a long narrow trench with a maximum depth of 58 m. The water of the lake is moderately hard. Islands are a feature of the lake, especially in the south-east sector.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Greenland White-fronted Goose, Tufted Duck, Black-headed Gull, Common Gull, Lesser Black-backed Gull and Common Tern. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

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 - all figures are mean peaks for 4 of the 5 winters in the period 1995/96 to 1999/2000. It also supports Whooper Swan (54) and is visited at times by part of the Erriff/Derrycraff population of Greenland White-fronted Goose (peak count of 62 in 1995/96). Other species using the site include Mute Swan (49), Whooper Swan (54), Wigeon (84), Teal (99), Mallard (101), Pochard (65), Goldeneye (89), Red-breasted Merganser (12), Little Grebe (17), Cormorant (36), Coot (112) Lapwing (31) and Curlew (75).

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.

As stated previously, the Glensaul River is a tributary of Lough Mask which is part of a Special Area of Conservation (SAC) and also a Special Protected Area (SPA). The Lough Carra / Mask Complex SAC includes three main lakes namely, Lough Mask, Carra and the smaller Cloon Lough. The SAC has been designated in consideration of the following habitats: Limestone pavement (Habitat Code 8240) – also a priority habitat; Alkaline fen (Habitat code 7230); Lowland oligotrophic lakes (Habitat code 3130); Marl Lakes; European Dry heaths (Habitat Code 4030); Calcareous Fens with *Cladium mariscus* (Code 7210).

Furthermore the SAC has been designated in consideration of the following species: Otter (*Lutra lutra*) (species code 1355); White-clawed Crayfish (*Austropotamobius pallipes*) (species code 1092); Lesser Horseshoe Bat (*Rhinolophus hipposideros*) (species code 1303).

Though the western shoreline of Lough Mask is less diverse and considerably deeper than its eastern shores, also lacking the limestone communities, there are records of notable Annex II species such as Freshwater Pearl Mussel (*Margaritifera margaritifera*) and otter (*Lutra lutra*), in addition to the Common Frog (*Rana temporaria*). Also, there are records of taxa protected under the Flora Protection Order (1987) including Irish St. John's wort (*Hypericum canadense*), Pillwort (*Pilularia globulifera*) and Small Cudweed (*Logfia minima*). Finally, the deep waters of Lough Mask are home to a population of the glacial relict Arctic Char (*Salvelinus alpinus*) (a Red Data Book species) while an uncommon amphipod (*Niphargus* spp.) also inhabits the lake waters. Lough Mask is also a notable Brown Trout (*Salmo trutta*) and Salmonid fishery.

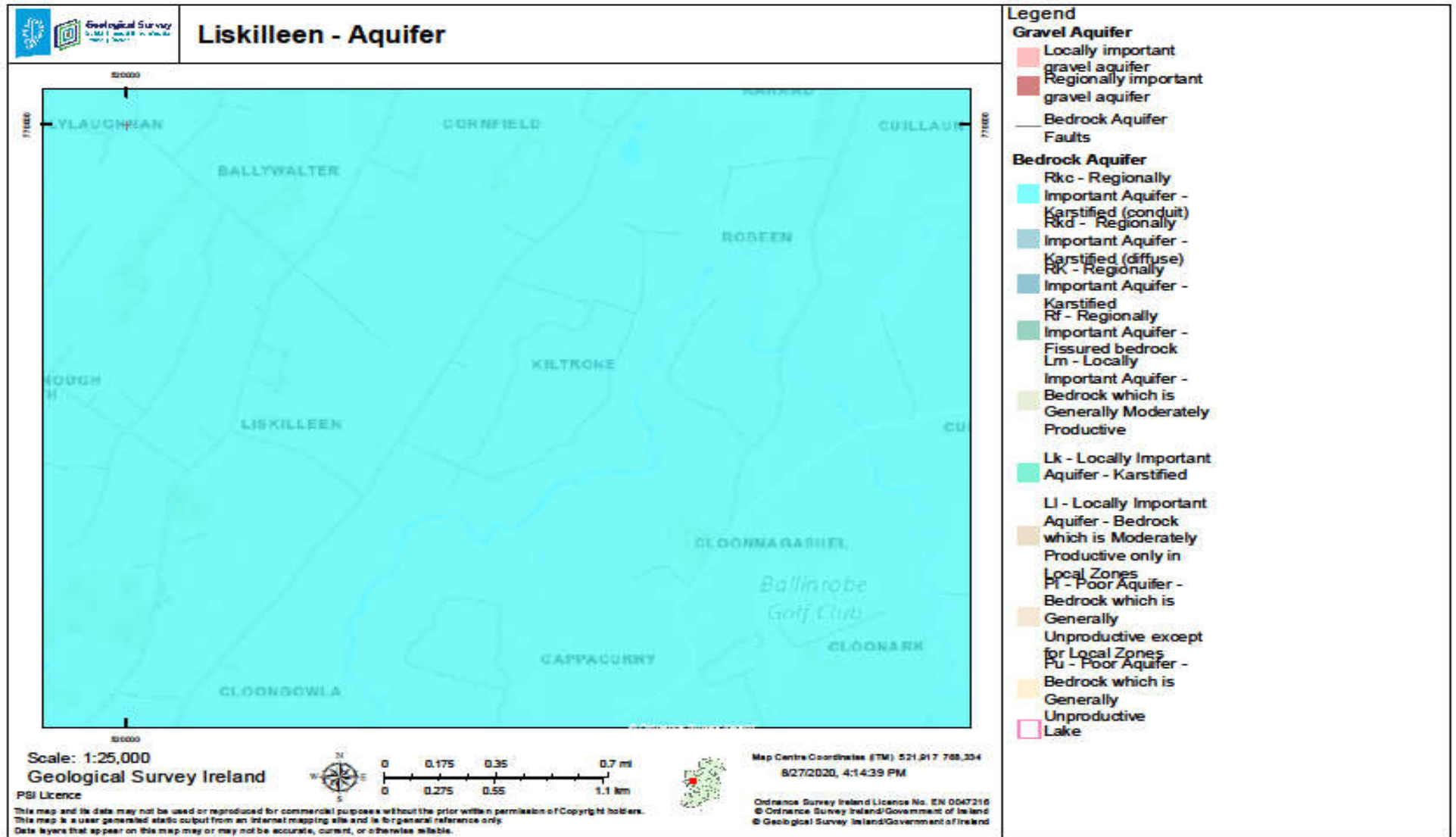
#### Lough Mask SPA (Site Code 004062)

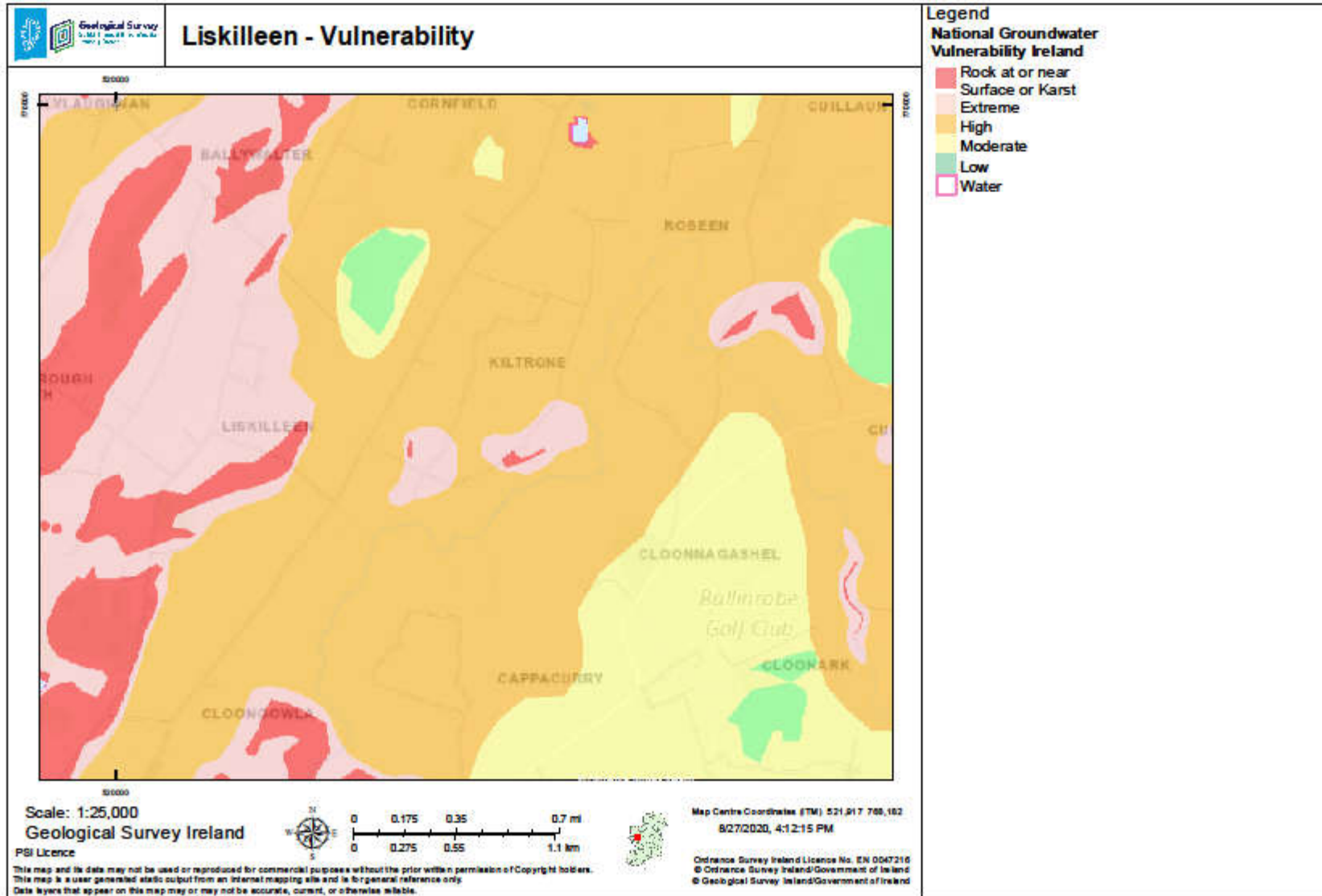
Lough Mask is a large deep lake (maximum depth 58 m; mean depth 15 m) which drains a catchment approximately 859 km<sup>2</sup> in Counties Mayo and Galway. The Lough Mask SPA has been designated in consideration of its national importance as a breeding site for many gull species including Black-headed Gull (*Larus ridibundus*), Common Gull (*Larus canus*) and Lesser Black-backed Gull (*Larus fuscus*) and is also a traditional breeding site for Common Tern (*Sterna hirundo*), an Annex I species listed in the E.U. Birds Directive. While the site also supports a good diversity of wintering waterfowl, including a nationally important population of Tufted Duck (*Aythya fuligula*), the occurrence of Whooper Swan (*Cygnus cygnus*) and Greenland White-fronted Goose (*Anser albifrons flavirostris*), albeit in small numbers, is of note as these species are also listed on Annex I of the E.U. Birds Directive.

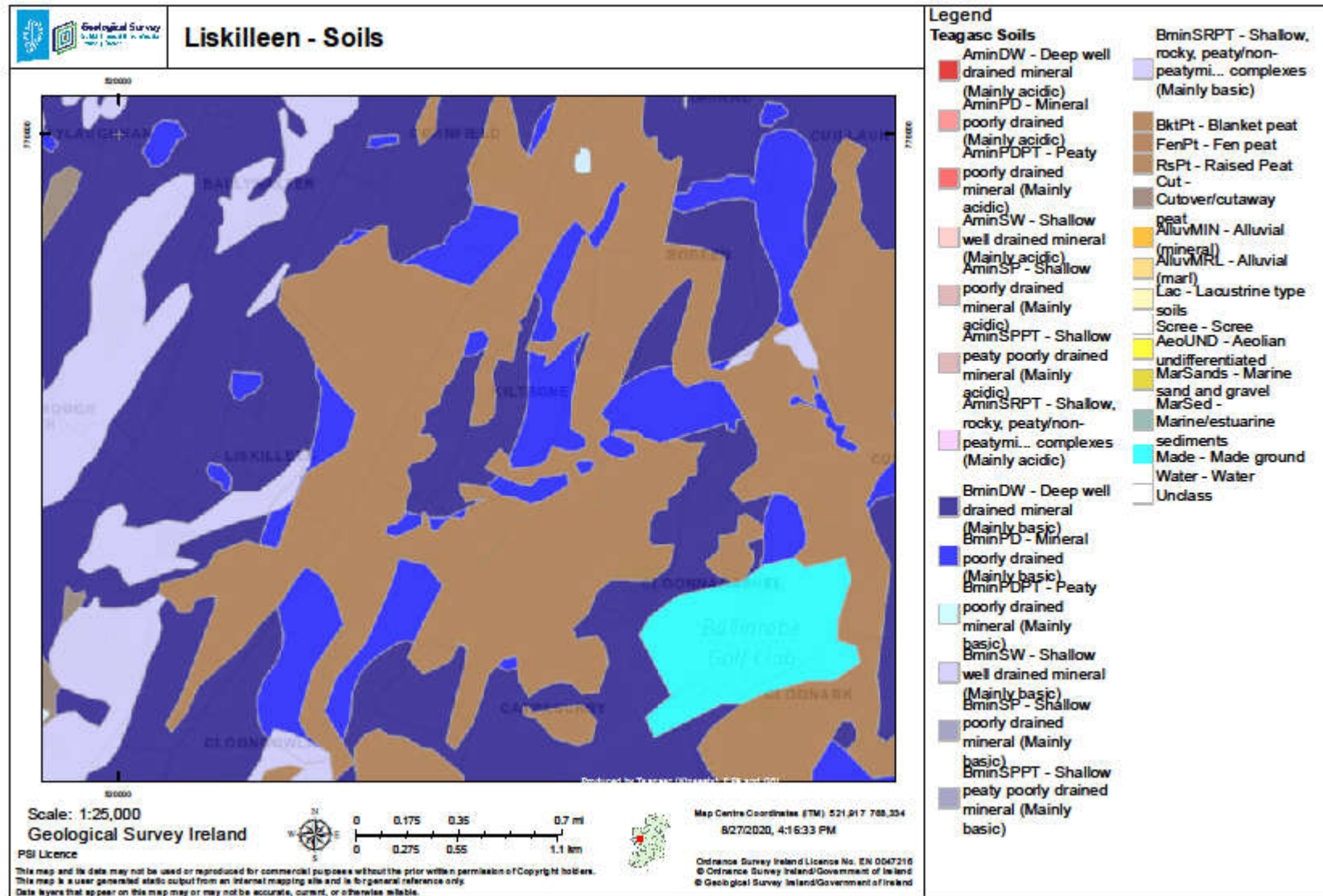
– Other projects and plans to be considered 'in combination'

There have been 21 planning applications submitted within the agglomeration since 2004 and 15 have obtained permission (Source: Mayo County Council GIS database). Most of the applications refer to residential, retail and relatively small scale commercial projects.

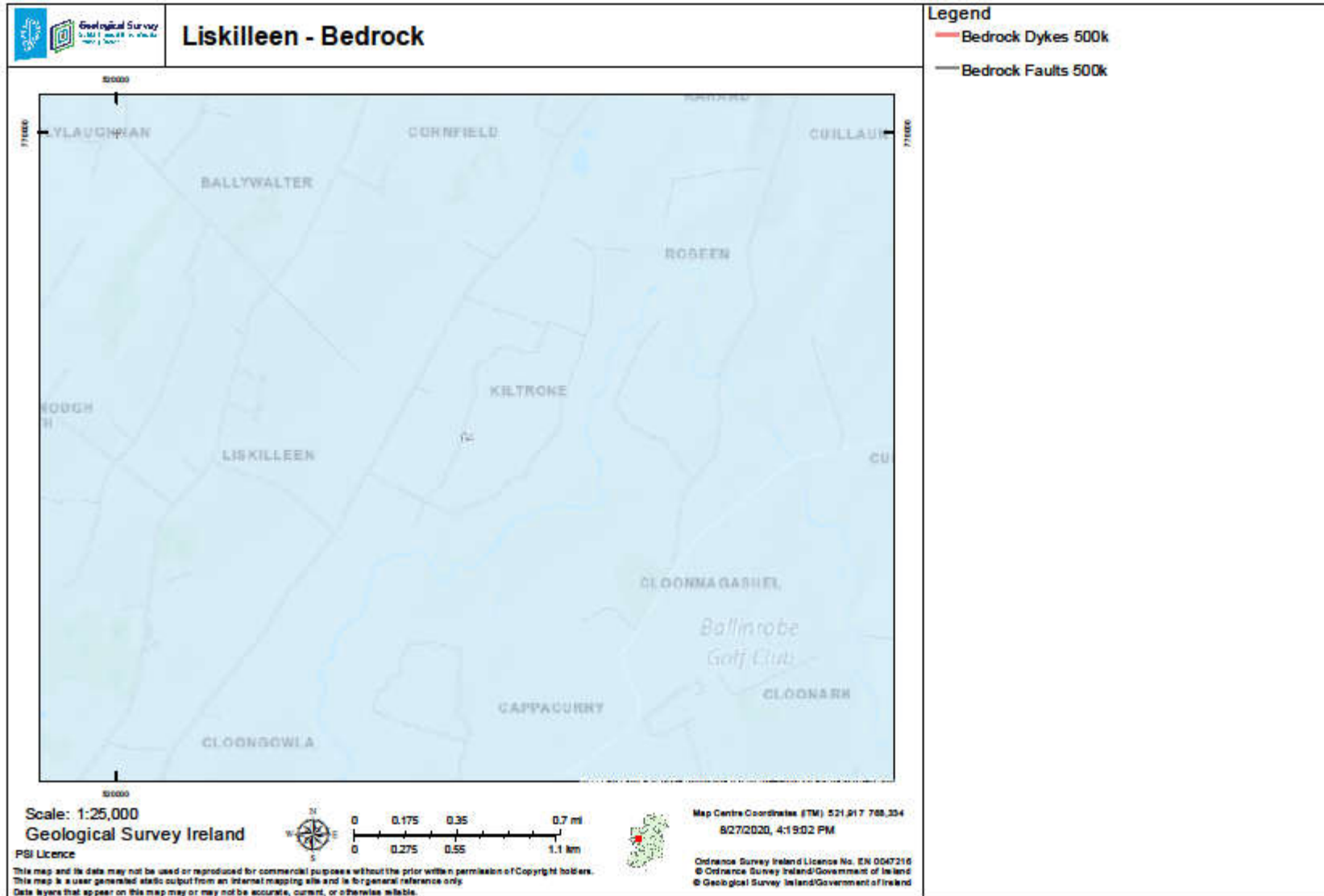
## Appendix C: Geological Mapping of Liskilleen











## Appendix D: Photographic evidence Local Archaeological Elements



Liskilleen Castle Ruins 0.4km from Proposed Site



View from the rear of the proposed site



3 Ring Fort located to the rear of the proposed site 150m

## Appendix E: OPW Flood source for Liskilleen locality

