

Mayo County Council

**Climate Ready Mayo
Draft Climate Adaptation Strategy**

Report for the Purposes of AA
Screening

Ref/1

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This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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1 Introduction

1.1 Overview

Under the requirements of the *Climate Action and Low Carbon Development Act 2015* Mayo County Council have prepared *Climate Ready Mayo* - the Draft Climate Change Adaptation Strategy for County Mayo, for the period 2019-2024 (hereafter referred to as the Draft Adaptation Strategy) which sets out strategic priorities, measures and responses for adaptation in County Mayo over the next five years.

This Report for the Purposes of Appropriate Assessment (AA) Screening (hereafter referred to as the ‘AA Screening Report’) contains information required for Mayo County Council (MCC), as the competent authority, to undertake screening for AA for the Draft Adaptation Strategy.

The findings of this AA Screening Report will assist MCC in making a determination as to whether the Draft Adaptation Strategy is likely to give rise to significant effects on any Natura 2000 sites. Thus, the aims of this AA Screening Report are to:

- Provide information on, and assess the potential for the Draft Adaptation Strategy to significantly effect Natura 2000 sites (also known as European Sites);
- Determine whether the Draft Adaptation Strategy is directly connected with, or necessary to, the conservation management of any Natura 2000 sites; and
- Determine whether the Draft Adaptation Strategy, alone or in combination with other projects, is likely to have significant effects on Natura 2000 sites in view of their conservation objectives.

1.1 Layout of Report

The screening information presented in this report is as follows:

- Overview of the Draft Adaptation Strategy and receiving environment, refer to **Section 2**;
- Ecological Overview (refer to **Section 3**) and identification of relevant Natura 2000 sites (European sites) within the zone of influence of the proposed development, refer to **Section 4**;
- Assessment of likely significant effects on Natura 2000 Sites, refer to **Section 5**; and
- Conclusions and Screening Statement, refer to **Section 6**.

1.2 Guidance and Data Sources

This report has been prepared with regard to the following guidance documents, where relevant:

- *"Managing Natura 2000 sites- The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC"* (EC Environment Directorate-General, 2018);
- *Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodical Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission Environment Directorate-General, 2001);
- *Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC.* (European Commission, 2007);
- *Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities* (Department of Environment, Heritage and Local Government, 2010 revision);
- *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPW 1/10 and PSSP 2/10;*
- *Guidelines for Good Practice Appropriate Assessment of Plans under Article 6(3) Habitats Directive* (International Workshop on Assessment of Plans under the Habitats Directive, 2011); and
- *Guidelines for Ecological Impact Assessment in the UK and Ireland, Terrestrial, Freshwater, Coastal and Marine* (Institute of Ecology and Environmental Assessment, September 2018).

Sources of information that were used to collect data on the Natura 2000 network of sites and on the existing ecological environment are listed below:

- Google aerial photography (viewed on 25th April 2019);
- National Parks and Wildlife Service online data on European Sites and (www.npws.ie) (viewed on 25th April 2019);
- National Parks and Wildlife Service online data on protected flora and fauna (viewed on 25th April 2019);
- Information on environmental quality data available from www.epa.ie (EPA Online Environmental Map Viewer) (viewed on 25th April 2019);
- Information on environmental water quality data available from (EPA, www.catchments.ie); and
- Natura Impact Report for the Mayo County Development Plan 2014-2020;
- Mayo Biodiversity Action Plan 2010-2015.

1.3 Legislative Background

According to the EU Habitats Directive (92/43/EEC) and the EU Birds Directive (79/409/EEC), Member States are required to establish a Natura 2000 network of sites of highest biodiversity importance for rare and threatened habitats and species across the EU.

In Ireland, the Natura 2000 network of European sites includes Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

SACs are selected for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds). SPAs are selected for the conservation of Annex I birds and all migratory birds and their habitats. The Annex habitats and species, for which each site is selected, are the *qualifying interests* (QI) of the site. *Conservation objectives* for the site are defined for these qualifying interests.

A key requirement of the Directives is that the effects of any plan or project, alone, or in combination with, other plans or projects, on the Natura 2000 site network, should be assessed before any decision is made to allow that plan or project to proceed. This process is known as Appropriate Assessment (AA). The obligation to undertake an Appropriate Assessment derives from Article 6(3) and 6(4) of the Habitats Directive (92/43/EEC), and both involve a number of steps and tests that need to be applied in sequential order.

Article 6(3) is concerned with the strict protection of sites, while Article 6(4) is the procedure for allowing derogation from this strict protection in certain restricted circumstances.

Article 6(3) of the Habitats Directive states:

“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”.

Article 6(4) states:

“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, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.”

The competent authority is required to carry out Appropriate Assessment, as required by Article 6(3) and 6(4) of the Habitats Directive, as follows:

- **Stage 1 – Screening for Appropriate Assessment** – to assess, in view of best scientific knowledge, if the plan or project individually or in combination with another plan or project is likely to have a significant effect on the Natura 2000 site.

- **Stage 2 – Appropriate Assessment** – This is required if it cannot be excluded, on the basis of objective information, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a Natura 2000 site. The appropriate assessment must include a final determination by the competent authority as to whether or not a proposed development would adversely affect the integrity of a Natura 2000 site. In order to reach a final determination, the competent authority must undertake examination, analysis and evaluation, followed by findings, conclusions and a final determination. The appropriate assessment must contain complete, precise and definitive findings and conclusions, and may not have lacunae or gaps.
- **Stage 3 – Assessment of alternative solutions** – The process which examines alternative ways of achieving the objectives of the project or plan that avoid significant effects on the integrity of the Natura 2000 site.
- **Stage 4 – Assessment where no alternative solutions exist and where significant effects remain** – an assessment of compensatory measures where, in the light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the project or plan should proceed.

1.4 Requirements for AA Screening

Prior to the commencement of the AA Screening process, it is first necessary to determine whether the Draft Adaptation Strategy constitutes a ‘plan’ or ‘project’ within the meaning of the Habitats Regulations (S.I. No. 477 of 2011).

Section 3.4.2 of the European Commission document on managing Natura 2000 sites, *The Provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC* states the following, with regards to the interpretation of the term ‘plan’ under Article 6(3) of the Habitats Directive:

“...a distinction needs to be made with ‘plans’ which are in the nature of policy statements, i.e. policy documents which show the general political will or intention of a ministry or lower authority. An example might be a general plan for sustainable development across a Member State’s territory or region. It does not seem appropriate to treat these as ‘plans’ for the purpose of Article 6(3), particularly if any initiatives deriving from such policy statements must pass through the intermediary of a land-use or sectoral plan (C 179/06, paragraph 41). However, where the link between the content of such an initiative and likely significant effects on a Natura 2000 site is clear and direct, Article 6(3) should be applied.”

As indicated above, the purpose of the Draft Adaptation Strategy is to set out a policy framework to be pursued in relation to climate change adaptation in County Mayo. It will not identify specific locations be they Natura 2000 sites or otherwise, nor will it propose adaptation measures or projects in respect of those sites. Adaptation approaches and identification of locations or sites will be detailed via lower level adaptation plans and strategies which may undergo appropriate assessment, as appropriate.

This is affirmed by Action No 1. of Goal 1 of the Draft Adaptation Strategy sets out the intention of the Council to “*integrate climate change and the Climate Adaptation Strategy (and mitigation) into the County and Local Area Development Plan and apply planning policies to reduce the vulnerability of Mayo County Council to the impacts of climate change.*” Thus, having regard to the purpose, and provisions of the Draft Adaptation Strategy, the same could be considered to constitute a ‘policy statement’ under EC Guidance, and may not be subject to the requirement for AA, under Article 6(3) of the Habitats Directive.

Nevertheless, in accordance with the EC Guidance and indeed the precautionary principle, the ‘*content of such an initiative*’ – i.e. the provisions of, and Adaptation Actions proposed, the Draft Adaptation Strategy have been considered with regards potential for significant effects on Natura 2000 sites.

Section 6 of this AA Screening Report details the outcome of this screening assessment.

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2 Brief Description of the Draft Adaptation Strategy

2.1 Introduction

This section provides a description of the Draft Adaptation Strategy, and other plans and projects that ‘in combination’, have the potential to have significant effects on a European or Natura 2000 site.

2.1.1 Overview of the Draft Adaptation Strategy

The Draft Adaptation Strategy sets out the strategic priorities, measures and responses of Mayo County Council for adaptation in County Mayo over the next five years, as required by the Climate Action and Low Carbon Development Act 2015.

While the Draft Adaptation Strategy recognises and builds on adaptation action already underway, it also lays the groundwork for a new, integrated approach to adaptation under the National Adaptation Framework. Further, it requires climate change principles and objectives to be considered in all of Mayo County Councils policies and programs.

The aim of the Draft Adaptation Strategy is to identify the risks, challenges and opportunities that need to be considered, and to take coherent coordinated action in response. The Councils Vision of a Climate Ready Mayo is to achieve:

“A County that understands how climate change will affect the region, our businesses and communities, and actively working together to reduce our exposure to climate risks and to capture new opportunities.”

In order to achieve this vision, Mayo County Council has established four strategic Goals, which are high level long term statements providing an overarching framework for climate adaptation planning in Mayo. The four Goals of the Draft Adaptation Strategy are:

Goal 1- Increase the resilience of Critical Infrastructure & Buildings to climate change by planning and implementing appropriate adaptation measure

Goal 2- Increase the resilience of our Natural & Cultural Capital to climate change by planning and implementing appropriate adaptation measure

Goal 3- Increase the resilience of our Water Resources and Flood Management to climate change by planning and implementing appropriate adaptation measures

Goal 4- Increase the resilience of our Community Services to climate change by planning and implement appropriate adaptation measures and supporting opportunities.

As a next step, the Draft Adaptation Strategy identifies a number of Objectives which define strategies or implementation steps to attain the identified Goals. The Objectives identified are common to each of the strategic Goals and constitute one or more of the following: engage, plan or adapt:

Engage- Improve education, awareness raising and capacity on climate change, adaptation (and mitigation), impact reduction and early warning across the Local Authority departments, businesses, communities and individuals.

Plan- Integrate climate change measures into policies, strategies and planning, as well as the identification of areas at risk to inform planning and decision - making.

Adapt- Strengthen resilience and adaptive capacity and develop and implement co-ordinated responses to climate risk where needed.

Further to the identification of the strategic Goals and Objectives, MCC has established a range of specific Actions. These ‘Adaptation Actions’ will be developed and implemented by MCC, with priority awarded to actions where severe weather has impacted the safety of citizens and critical infrastructure. The proposed Adaptation Actions are included in **Appendix B**.

Figure 2.1 illustrates the steps that makes up the Draft Adaptation Strategy



Figure 2.1 The Draft Adaptation Strategy

3 Ecological Overview

County Mayo has a particularly rich and diverse natural heritage. Mountains and upland areas are concentrated in the north and west of the county, which is characterised by a mosaic of peatland, heath and forestry plantations. More fertile farmland is found in the low-lying and undulating landscapes of east Mayo. There are several large lakes in the county and numerous medium to small lakes. The long and varied Mayo coastline contains a wide range of coastal habitats from cliffs to estuaries, mudflats, machair, sandy beaches and offshore islands.

The main rivers of the county include the Moy, Deel, Owenmore, Owenduff, Newport, Bunowen, and the Erriff. Lough Conn and Mask are among the largest lakes in the country.

Over a quarter of County Mayo's land area is designated for nature conservation. This high percentage reflects the international and national significance of Mayo's wealth of natural heritage. Along with sites designated for nature conservation, Mayo has many other areas of local ecological importance including broadleaved woodlands, scrub, hedgerows, tree lines, cutover bog and wet grassland. Many of these areas are important helping to form wildlife corridors and ecological networks across the landscape. These corridors and networks allow animals to move freely from one habitat to another.

4 Brief Description of the Natura 2000 Sites

4.1 Zone of Influence

The zone of influence comprises the area within which the Draft Adaptation Strategy may potentially affect the conservation objectives or qualifying interests (QI) of a Natura 2000 site. There is no recommended zone of influence, and guidance from the National Parks and Wildlife Service (NPWS) recommends that the distance should be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in-combination effects (cumulative).

Natura 2000 sites (also referred to as European sites) are only at risk from significant effects where a source-pathway-receptor link exists between a project/plan and a Natura 2000 site(s). This can take the form of a direct effect (e.g. where the project/plan and/or associated construction works are located within the boundary of the Natura 2000 site(s)) or an indirect effect where impacts outside of the Natura 2000 site(s) affect ecological receptors within (e.g. impacts to water quality which can affect riparian habitats at a distance from the source of effect). Consideration is therefore given to the source-pathway-receptor linkage and associated risks between the Draft Adaptation Strategy and Natura 2000 sites.

As a general rule of thumb, it is often considered appropriate to examine all Natura 2000 sites within 15km as a starting point. Thus, for the purposes of this assessment, all those Natura 2000 sites within the border of County Mayo, as well as those within a 15km distance from the border are considered the 'Zone of Influence' of the Draft Adaptation Strategy. The Zone of Influence of the Draft Adaptation Strategy is illustrated in **Figure 4.1**.

In some instances, Natura 2000 sites outside of the Zone of Influence may need to be considered, depending on the likely significant effects of the plan or project, and the sensitivities of the ecological receptors, bearing in mind the precautionary principle. For example, where hydrological connections are established, a whole river catchment or marine area may need to be included. Further, the spatial sensitivity of a Q.I of a Natura 2000 site may need to be considered (i.e. the area within which the QI may be present and therefore could be affected).

It should be noted that the boundaries of Natura sites are subject to change. Up to date information, data and maps of Irish Natura 2000 sites, including those identified above was obtained from the Maps and Data Section on the NPWS website at <http://www.npws.ie/en/MapsData>.

4.2 Natura 2000 sites within the Zone of Influence

This section provides an overview of the Natura 2000 sites identified within the Zone of Influence of the Draft Adaptation Strategy.

As outlined in Section 1.3, the Natura 2000 network of European sites includes Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). SACs are selected for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds). SPAs are selected for the conservation of Annex I birds and all migratory birds and their habitats. The Annex habitats and species, for which each site is selected, are the qualifying interests (QI) of the site. Conservation objectives for the site are defined for these qualifying interests.

Consultation of NPWS online data identified some 72 Natura 2000 located within the border of county Mayo. This includes 53 SACs and 19 SPAs. **Table A.1 in Appendix A** outlines all those Natura 2000 sites identified as being within County Mayo, and the QI's for which they are designated.

Consultation of NPWS online data identified a further 49 Natura 2000 located within 15km of the Mayo county border. This includes 41 SACs and 8 SPAs. **Table A.2 in Appendix A** outlines all those Natura 2000 sites identified as being located within a 15km buffer from the county border and the Qualifying Interests (QI's) for which they are designated.

As discussed in **Section 4.1**, in some instances, Natura 2000 sites outside of the Zone of Influence may need to be considered, depending on the likely significant effects of the plan or project, and the sensitivities of the ecological receptors, bearing in mind the precautionary principle. While not included in **Table A.1** or **A.2**, this assessment has had due regard to Natura 2000 sites outside the Zone of Influence in the consideration of potential for significant environmental effects in respect of the precautionary principal and potential for source-path-receptor linkages.

4.3 Other Designated Sites within the Zone of Influence

Natural Heritage Areas (NHAs) and Proposed Natural Heritage Areas (pNHAs) can be considered 'stepping stones' between Natura 2000 sites and are therefore considered in this assessment.

NHAs were derived from the older Areas of Scientific Interest (ASIs) and include the best remaining areas of Ireland's natural and semi-natural habitats. Sites may have been selected by virtue of having special scientific significance for one or more species, communities, habitats, landforms, or geological or geomorphological features, or for a diversity of natural attributes. Depending on their quality and importance, NHAs may carry other designations including SAC, SPA, Statutory Nature Reserve or National Park.

Consultation of NPWS online data identified some 10 NHAs located within the border of county Mayo, and a further 10 NHAs located within a 15km of the county border. **Table A.3** and **Table A.4** in Appendix A list all those NHAs identified as being within the Zone of Influence of the Draft Adaptation Strategy.

Some 153 pNHAs have also been identified as being location within the Zone of Influence of the Draft Adaptation Strategy. Some 89 of these pNHAs are identified as being located within County Mayo.

While not included in **Table A.3** and **A.4**, NHAs and pNHAs located outside the Zone of Influence were given due regard in the consideration of potential for significant effects, in respect of the precautionary principal and potential for source-path-receptor linkages.

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5 Assessment of Potential for Significant Effects on Natura 2000 Sites

5.1 Introduction

As outlined in **Section 1**, the findings of this AA Screening Report will assist MCC in making a determination as to whether the Draft Adaptation Strategy is likely to give rise to any significant adverse effects on any Natura 2000 sites. Thus, the aims of this AA Screening Report are to:

- Provide information on, and assess the potential for the Draft Adaptation Strategy to significantly effect Natura 2000 sites (Refer to **Section 5.1.1**);
- Determine whether the Draft Adaptation Strategy is directly connected with, or necessary to, the conservation management of any Natura 2000 sites (Refer to **Section 5.1.2**); and
- Determine whether the Draft Adaptation Strategy, alone or in combination with other projects, is likely to have significant effects on Natura 2000 sites in view of their conservation objectives (Refer to **Section 5.1.3**).

This section provides an overview of the assessment of the Draft Adaptation Strategy, and the Adaptation Actions contained therein.

5.1.1 Potential for Significant Effects on Natura 2000 Sites

As outlined in **Section 4.2**, there are 146 Natura 2000 sites are located within the 'Zone of Influence' of the Draft Adaptation Strategy.

The DoEHLG (2009) have advised that policies and objectives (or in this case 'Actions') found at Stage 1 AA screening to have no significant effect can include Actions that:

- Will not lead to development;
- Are intended to protect the natural environment, including biodiversity (see Article 10 of Directive);
- Are intended to conserve or enhance the natural, built or historic environment and are unlikely to have an effect on a Natura 2000 site;
- Positively steer development away from Natura 2000 sites and associated sensitive areas;
- Positively make provision to ensure that the policy/objective implementation will not have a significant effect or adverse effect on the integrity of a Natura 2000 site; or,
- Policies and objectives that can be dealt with by using a caveat or conditional approach requiring, where necessary, a case by case AA.

Thus, in order to adequately assess the provisions of the Draft Adaptation Strategy, each of the proposed Adaptation Actions were considered with regards potential for significant effects on the Natura 2000 sites identified within the Zone of Influence (and beyond, where considered appropriate having regard to the precautionary principle). Refer to **Appendix B** for the detailed assessment of the proposed Adaptation Actions.

As outlined in the 2018 EC report *‘Managing Natura 2000 sites The provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC*, “where one or more specific projects are included in a plan in a general way but not in terms of project details, the assessment made at plan level does not exempt the specific projects from the assessment requirements of Article 6(3) at a later stage, when much more details about them are known.”

This assessment was therefore carried out on the understanding that any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required. Similarly, where Adaptation Actions give rise to other plans or programmes which could be considered to constitute the definition of the same under the Habitats Regulations, the plan or programme should similarly be subject to AA prior to adoption, as required.

The purpose of the Draft Adaptation Strategy is to assist MCC in preparing for climate change through climate adaptation; developing a comprehensive understanding of how a changing climate will affect the County and its communities; and actively working to reduce exposure to new and increased risks. By taking proactive action to adjust and prepare for anticipated changes, Mayo County Council will work to achieve “a reduction in losses, improved environmental health, and provision of a host of community benefits”. Ultimately, the Draft Adaptation Plan will work to reduce the risk to County Mayo of the effects of climate change.

As outlined in the Draft Adaptation Strategy, many of the Adaptation Actions are “centred around awareness, training and updating policies, procedures and plans to take account of climate projections and impacts.” Thus, in considering the overall nature of the Adaptation Actions, and in the understanding that this assessment does not exempt the specific projects from the assessment requirements of Article 6(3) at a later stage, no potential for significant effects on Natura 2000 sites was identified in the assessment of the proposed Adaptation Actions.

5.1.2 Determination of Connectivity to, or Necessity for the Management of, Natura 2000 Sites

Under the Habitats Directive, plans that are directly connected with, or necessary to the management of a European site do not require AA. For this exception to apply, management is required to be interpreted narrowly as nature conservation management in the sense of Article 6(1) of the Habitats Directive. This refers to specific measures to address the ecological requirements of annexed habitats and species (and their habitats) present on a site(s).

The relationship should be shown to be direct and not a by-product of the plan, even if this might result in positive or beneficial effects for a site(s). The primary purpose of the Draft Adaptation Strategy is not the nature conservation management of the sites.

Thus, the Draft Adaptation Strategy is not considered, in accordance with the provision of the Habitats Directive, to be directly connected with, or necessary to the management of European designated sites.

5.1.3 Potential for In-Combination/Cumulative Effects on Natura 2000 Sites

Other plans and programmes that have the potential to result in any in-combination or cumulative effects with the Draft Adaptation Strategy are considered in this Section.

It is considered extremely unlikely that significant in-combination or cumulative effects arising from interaction with other plans or programmes could arise, as each plan or programme has either been subject to the Appropriate Assessment process or provides for biodiversity protection i.e. the County Mayo Biodiversity Action Plan 2010 - 2015.

Each Stage 2 AA or Stage 1 AA Screening concluded that significant effects on Natura 2000 sites arising from the plan or project in question were considered extremely unlikely.

Mayo County Development Plan 2014-2020 (Incorporating Variations No. 1 & No. 2)

The Mayo County Development Plan and its Variations have undergone AA, and a Natura Impact Report has been prepared.

The NIR concludes that:

“During the draft Plan preparation, the Habitats Directive Assessment identified those policies and objectives which were not likely to cause potential adverse effects and eliminated or screened those policies and objectives from further examination. Reasons were provided for their ‘screening out’.

Consequently, during the Habitats Directive Assessment, amendments were made to a number of policies and objectives of the draft Plan in a bid to address their potential significant adverse effects and also to incorporate supporting, strengthening text within policies and objectives to mitigate against adverse effects and ensure the protection and conservation, and whenever necessary, the restoration of qualifying interests and special conservation interests for which Natura 2000 sites were designated and classified.

Since this is a County Development Plan which guides and directs development throughout the county in a strategic way, any plans and projects which are an inevitable consequence of a Development Plan such as this, will be subject to an assessment under Article 6(3) and 6 (4) of the Habitats Directive, and will, on a case-by-case basis, be evaluated for their potential to cause significant adverse effects on the Natura 2000 Network, either alone or in combination with other plans and projects, and thereby have specific mitigation measures proposed to negate or offset these effects.”

No adverse in-combination or cumulative effects with the Draft Adaptation Strategy are predicted as a result of implementation.

National Adaptation Framework

The National Adaptation Framework was subject to a ‘pre-screening’ check to determine the requirement for AA Screening.

This pre-screening process indicated that while the purpose of the framework is to set out a policy framework to be pursued in relation to climate change adaptation; it will not identify specific locations, be they Natura 2000 sites or otherwise, nor will it propose adaptation measures or projects in respect of those sites. Adaptation approaches and identification of locations or sites will be detailed via lower level adaptation plans and strategies which may undergo appropriate assessment, as appropriate

The pre-screening process set out above has indicated that the administrative provisions of Articles 9(1) and 9(3) of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations, as amended have been not been fulfilled and an SEA would not, therefore, be required for the national adaptation framework. Similarly, an appropriate assessment of the framework in accordance with the Habitats Directive (Directive 92/43/EEC) as transposed by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 447 of 2011), is also assessed as not being required.

No adverse in-combination or cumulative effects with the Draft Adaptation Strategy are predicted as a result of implementation.

Mayo Heritage Plan 2011-2016

This Plan has not undergone AA. However, the aim of the County Mayo Heritage Plan is “*promoting best practice in heritage management, raising awareness and collection and dissemination of heritage information, which were identified for the first plan*”.

No adverse in-combination or cumulative effects with the Draft Adaptation Strategy are predicted as a result of implementation.

Mayo Biodiversity Plan 2010-2015

While this Plan has not undergone AA, it should be noted that it sits under the Mayo CDP, which has undergone AA and has placed emphasis on the protection of Natura 2000 sites. The nature of the Biodiversity Plan is to conserve biodiversity including Natura 2000 sites that make up the Natura 2000 network.

No in-combination effects with the Draft Adaptation Strategy are predicted as a result of implementation.

No adverse in-combination or cumulative effects with the Draft Adaptation Strategy are predicted as a result of implementation.

Regional Planning Guidelines

A Natura Impact Report was prepared with regards the Regional Planning Guidelines for the West Region 2010-2022. The findings of the report concluded that:

“The Habitats Directive Appropriate Assessment identified a number of key planning and development issues in the Guidelines which, when implemented, have the potential to result in negative impacts on one or more Natura 2000 site and issues may therefore arise under Article 6 of the EU Habitats Directive which will require Appropriate Assessment at ‘lower plan’ or project level. Where such ‘lower plan’ or project level Appropriate Assessment concludes significant negative impacts, alternative solutions which comply fully with Article 6 of the EU Habitats Directive may need to be considered.”

No adverse in-combination or cumulative effects with the Draft Adaptation Strategy are predicted as a result of implementation.

Draft Regional Spatial and Economic Strategy for the Northern and Western Region

A Natura Impact Report was prepared with regards the Draft Regional Spatial and Economic Strategy. The findings of which are outlined below:

“The spatial dimension of the N&W RSES has the potential to give rise to direct and indirect effects on biodiversity, flora and fauna in European Sites in Ireland and Northern Ireland through habitat loss, destruction, fragmentation or degradation; disturbance to species; species mortality; alternations to water quality and hydrology; alteration to air quality, introduction and transfer of invasive species among other issues. However, it also offers the opportunity to integrate nature into decision making and allow the benefits of biodiversity to be appreciated, and where appropriate harnessed. In the absence of detail with regards to finalised controls or mitigation measures at this early stage as well as the unknowns in relation to the potential effects on water, air and sensitive habitats, it is considered that there is a likelihood of significant effects occurring on one or more European Sites.”

No adverse in-combination or cumulative effects with the Draft Adaptation Strategy are predicted as a result of implementation.

River Basin Management Plan for Ireland (2018-2021)

A Natura Impact Statement was prepared River Basin Management Plan for Ireland (2018-2021). The NIS conclusion stated that:

It is the conclusion of this Natura Impact Statement that the RBMP will not adversely affect the integrity of any European site with the implementation of measures presented within this NIS.

No adverse in-combination or cumulative effects with the Draft Adaptation Strategy are predicted as a result of implementation.

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6 Conclusion and Screening Statement

The aims of this report were as follows:

- Provide information on, and assess the potential for the Draft Adaptation Strategy to significantly effect Natura 2000 Sites;
- Determine whether the Draft Adaptation Strategy is directly connected with, or necessary to, the conservation management of any Natura 2000 sites; and
- Determine whether it can be excluded, on the basis of objective information and beyond reasonable scientific doubt, that the Draft Adaptation Strategy, alone or in combination with other projects, will have significant effect on any Natura 2000 sites in view of their conservation objectives.

It has been objectively concluded by Arup that:

- There is no potential for the Draft Adaptation Strategy, in particular the proposed Adaptation Actions, to significantly effect Natura 2000 sites.
- The Draft Adaptation Strategy is not directly connected with, or necessary to the conservation management of any Natura 2000 sites.
- The Draft Adaptation Strategy, alone or in combination with other plans or programmes, is not likely to have significant effects on Natura 2000 sites in view of their conservation objectives.

It can be excluded, on the basis of objective information and beyond a reasonable scientific doubt that the Draft Adaptation Strategy will have a significant effect on these sites. It is the view of Arup that it is not necessary to undertake any further stage of the Appropriate Assessment process for the Draft Adaptation Strategy.

7 References

Managing Natura 2000 Sites: The Provision of Article 6 of the Habitats Directive 92/43/EEC (EC Environment Directorate-General, 2000); [hereafter referred to as MN 2000];

Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodical Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission Environment Directorate-General, 2001);

Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC. (European Commission, 2007);

Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (Department of Environment, Heritage and Local Government, 2010 revision);

Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPW 1/10 and PSSP 2/10;

Guidelines for Good Practice Appropriate Assessment of Plans under Article 6(3) Habitats Directive (International Workshop on Assessment of Plans under the Habitats Directive, 2011);

Guidelines for Ecological Impact Assessment in the UK and Ireland, Terrestrial, Freshwater, Coastal and Marine (Institute of Ecology and Environmental Assessment, September 2018).

Appendix A

Natura 2000 Sites Within the Zone of Influence

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A1 Natura 2000 Sites within the Zone of Influence

Table A.1: Natura 2000 sites within County Mayo

Site Name	Site Code	Qualifying Interests (QI's)	
		Habitats	Species
SAC's			
Achill Head	(002268)	Mudflats and sandflats not covered by seawater at low tide	-
Arckill Turlough	(000461)	Turloughs	-
Balla Turlough	(000463)	Turloughs	-
Ballinafad	(002081)	-	Rhinolophus hipposideros
Bellacorick Bog Complex	(001922)	Natural dystrophic lakes and ponds Northern Atlantic wet heaths with Erica tetralix Blanket bogs (* if active bog) Depressions on peat substrates of the Rhynchosporion Alkaline fens	Saxifraga hirculus
Bellacorick Iron Flush	(000466)	-	Saxifraga hirculus
Bellacragher Saltmarsh	(002005)	Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Mediterranean salt meadows (Juncetalia maritimi)	-
Brackloon Woods	(000471)	Old sessile oak woods with Ilex and Blechnum in the British Isles	-
Broadhaven Bay	(000472)	Mudflats and sandflats not covered by seawater at low tide Large shallow inlets and bays Reefs Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Submerged or partially submerged sea caves	-
Carrowkeel Turlough	(000475)	Turloughs	-
Carrowmore Lake Complex	(000476)	Blanket bogs (* if active bog) Depressions on peat substrates of the Rhynchosporion	Drepanocladus vernicosus Saxifraga hirculus

Clare Island Cliffs	(002243)	Vegetated sea cliffs of the Atlantic and Baltic coasts	-
Clew Bay Complex	(001482)	Mudflats and sandflats not covered by seawater at low tide Coastal lagoons Large shallow inlets and bays Annual vegetation of drift lines Perennial vegetation of stony banks Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>) Embryonic shifting dunes Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) Machairs (* in Ireland) Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	-
Cloonakillina Lough	(001899)	Transition mires and quaking bogs	-
Cloughmoyne	(000479)	Limestone pavements	-
Clyard Kettle-holes	(000480)	Turloughs Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davalliana</i>	-
Corraun Plateau	(000485)	Northern Atlantic wet heaths with <i>Erica tetralix</i> European dry heaths Alpine and Boreal heaths Juniperus communis formations on heaths or calcareous grasslands Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) Siliceous rocky slopes with chasmophytic vegetation	-
Croaghau/Slie vemore	(001955)	Northern Atlantic wet heaths with <i>Erica tetralix</i>	-
Cross Lough (Killadoon)	(000484)	Perennial vegetation of stony banks	-
Doocastle Turlough	(000492)	Turloughs	-
Doogort Machair/Lough Doo	(001497)	Machairs (* in Ireland)	-
Duvillaun Islands	(000495)		<i>Halichoerus grypus</i>

Erris Head	(001501)	Vegetated sea cliffs of the Atlantic and Baltic coasts Alpine and Boreal heaths	-
Flughany Bog	(000497)	Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion	-
Glenamoy Bog Complex	(000500)	Vegetated sea cliffs of the Atlantic and Baltic coasts Natural dystrophic lakes and ponds Northern Atlantic wet heaths with <i>Erica tetralix</i> <i>Juniperus communis</i> formations on heaths or calcareous grasslands Blanket bogs (* if active bog) Transition mires and quaking bogs Depressions on peat substrates of the Rhynchosporion Machairs (* in Ireland)	<i>Salmo salar</i> <i>Drepanocladus vernicosus</i> <i>Petalophyllum ralfsii</i> <i>Saxifraga hirculus</i>
Greaghans Turlough	(000503)	Turloughs	-
Inishkea Islands	(000507)	Machairs (* in Ireland)	<i>Halichoerus grypus</i> <i>Petalophyllum ralfsii</i>
Keel Machair/Menau n Cliffs	(001513)	Perennial vegetation of stony banks Alpine and Boreal heaths Machairs (* in Ireland)	
Kildun Souterrain	(002320)	-	<i>Rhinolophus hipposideros</i>
Kilglassan/Caravoostia Turlough Complex	(000504)	Turloughs	-
Killala Bay/Moy Estuary	(000458)	Estuaries Mudflats and sandflats not covered by seawater at low tide Annual vegetation of drift lines Vegetated sea cliffs of the Atlantic and Baltic coasts <i>Salicornia</i> and other annuals colonising mud and sand Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) Embryonic shifting dunes	<i>Vertigo angustior</i> <i>Petromyzon marinus</i> <i>Phoca vitulina</i>

		<p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</p> <p>Fixed coastal dunes with herbaceous vegetation (grey dunes)</p> <p>Humid dune slacks</p>	
Lackan Saltmarsh and Kilcummin Head	(000516)	<p><i>Salicornia</i> and other annuals colonising mud and sand</p> <p>Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>)</p> <p>Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</p> <p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</p> <p>Fixed coastal dunes with herbaceous vegetation (grey dunes)</p>	-
Lough Cahasy, Lough Baun and Roonah Lough	(001529)	<p>Coastal lagoons</p> <p>Perennial vegetation of stony banks</p> <p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</p>	-
Lough Carra/Mask Complex	(001774)	<p>Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>)</p> <p>Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>)</p> <p>Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i></p> <p>Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.</p> <p>European dry heaths</p> <p>Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites)</p> <p>Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i></p> <p>Alkaline fens</p> <p>Limestone pavements</p>	<p><i>Rhinolophus hipposideros</i></p> <p><i>Lutra lutra</i></p> <p><i>Drepanocladus vernicosus</i></p>
Lough Corrib	(000297)	<p>Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>)</p>	<p><i>Margaritifera margaritifera</i></p> <p><i>Austroptamobius pallipes</i></p> <p><i>Petromyzon marinus</i></p>

		<p>Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea</p> <p>Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.</p> <p>Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation</p> <p>Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)</p> <p>Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)</p> <p>Active raised bogs</p> <p>Degraded raised bogs still capable of natural regeneration</p> <p>Depressions on peat substrates of the Rhynchosporion</p> <p>Calcareous fens with Cladium mariscus and species of the Caricion davallianae</p> <p>Petrifying springs with tufa formation (Cratoneurion)</p> <p>Alkaline fens</p> <p>Limestone pavements</p> <p>Old sessile oak woods with Ilex and Blechnum in the British Isles</p> <p>Bog woodland</p>	<p>Lampetra planeri</p> <p>Salmo salar</p> <p>Rhinolophus hipposideros</p> <p>Lutra lutra</p> <p>Drepanocladus vernicosus</p> <p>Najas flexilis</p>
Lough Dahybaun	(002177)	-	Najas flexilis
Lough Gall Bog	(000522)	Blanket bogs (* if active bog) Depressions on peat substrates of the Rhynchosporion	-
Lough Hoe Bog	(000633)	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	-
Mocorha Lough	(001536)	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	-
Moore Hall (Lough Carra)	(000527)	-	Rhinolophus hipposideros
Mullet/Blacksod Bay Complex	(000470)	Mudflats and sandflats not covered by seawater at low tide Large shallow inlets and bays Reefs	Lutra lutra Petalophyllum ralfsii

		<p>Salicornia and other annuals colonising mud and sand</p> <p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</p> <p>Fixed coastal dunes with herbaceous vegetation (grey dunes)</p> <p>Atlantic decalcified fixed dunes (Calluno-Ulicetea)</p> <p>Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation</p> <p>Alkaline fens</p> <p>Machairs (* in Ireland)</p>	
Mweelrea/Sheefry/Erriff Complex	(001932)	<p>Coastal lagoons</p> <p>Annual vegetation of drift lines</p> <p>Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>)</p> <p>Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</p> <p>Embryonic shifting dunes</p> <p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</p> <p>Atlantic decalcified fixed dunes (Calluno-Ulicetea)</p> <p>Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>)</p> <p>Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>)</p> <p>Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or <i>Isoeto-Nanojuncetea</i></p> <p>Natural dystrophic lakes and ponds</p> <p>Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation</p> <p>Northern Atlantic wet heaths with <i>Erica tetralix</i></p> <p>European dry heaths</p> <p>Alpine and Boreal heaths</p> <p><i>Juniperus communis</i> formations on heaths or calcareous grasslands</p> <p>Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels</p> <p>Blanket bogs (* if active bog)</p>	

		<p>Transition mires and quaking bogs</p> <p>Depressions on peat substrates of the Rhynchosporion</p> <p>Petrifying springs with tufa formation (Cratoneurion)</p> <p>Alkaline fens</p> <p>Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)</p> <p>Calcareous rocky slopes with chasmophytic vegetation</p> <p>Siliceous rocky slopes with chasmophytic vegetation</p> <p>Machairs (* in Ireland)</p>	
Newport River	(002144)	-	<p>Margaritifera margaritifera</p> <p>Salmo salar</p>
Oldhead Wood	(000532)	<p>European dry heaths</p> <p>Old sessile oak woods with Ilex and Blechnum in the British Isles</p>	-
Owenduff/Nephin Complex	(000534)	<p>Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)</p> <p>Natural dystrophic lakes and ponds</p> <p>Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation</p> <p>Northern Atlantic wet heaths with Erica tetralix</p> <p>Alpine and Boreal heaths</p> <p>Juniperus communis formations on heaths or calcareous grasslands</p> <p>Blanket bogs (* if active bog)</p> <p>Transition mires and quaking bogs</p>	<p>Salmo salar</p> <p>Lutra lutra</p> <p>Drepanocladus vernicosus</p> <p>Saxifraga hirculus</p>
Ox Mountains Bogs	(002006)	<p>Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)</p> <p>Natural dystrophic lakes and ponds</p> <p>Northern Atlantic wet heaths with Erica tetralix</p> <p>European dry heaths</p> <p>Blanket bogs (* if active bog)</p> <p>Transition mires and quaking bogs</p> <p>Depressions on peat substrates of the Rhynchosporion</p>	

River Moy	(002298)	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae) Active raised bogs Degraded raised bogs still capable of natural regeneration Depressions on peat substrates of the Rhynchosporion Alkaline fens Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	
Shrule Turlough	(000525)	Turloughs	-
Skealaghan Turlough	(000541)	Turloughs	-
Slieve Fyagh Bog	(000542)	Blanket bogs (* if active bog)	-
Towerhill House	(002179)	-	Rhinolophus hipposideros
Urlaur Lakes	(001571)	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	-
West Connacht Coast	(002998)	-	Tursiops truncatus
SPAs			
Bills Rocks	(004177)	-	Storm Petrel (<i>Hydrobates pelagicus</i>) [A014] Puffin (<i>Fratercula arctica</i>) [A204]
Blacksod Bay/Broad Haven	(004037)	-	Great Northern Diver (<i>Gavia immer</i>) [A003] Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Common Scoter (<i>Melanitta nigra</i>) [A065] Red-breasted Merganser (<i>Mergus serrator</i>) [A069] Ringed Plover (<i>Charadrius hiaticula</i>) [A137] Sanderling (<i>Calidris alba</i>) [A144]

			<p>Dunlin (<i>Calidris alpina</i>) [A149]</p> <p>Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</p> <p>Curlew (<i>Numenius arquata</i>) [A160]</p> <p>Sandwich Tern (<i>Sterna sandvicensis</i>) [A191]</p> <p>Dunlin (<i>Calidris alpina schinzii</i>) [A466]</p> <p>Wetland and Waterbirds [A999]</p>
Carrowmore Lake	(004052)	-	Sandwich Tern (<i>Sterna sandvicensis</i>) [A191]
Clare Island	(004136)	-	<p>Fulmar (<i>Fulmarus glacialis</i>) [A009]</p> <p>Shag (<i>Phalacrocorax aristotelis</i>) [A018]</p> <p>Common Gull (<i>Larus canus</i>) [A182]</p> <p>Kittiwake (<i>Rissa tridactyla</i>) [A188]</p> <p>Guillemot (<i>Uria aalge</i>) [A199]</p> <p>Razorbill (<i>Alca torda</i>) [A200]</p> <p>Chough (<i>Pyrhocorax pyrrhocorax</i>) [A346]</p>
Cross Lough (Killadoon)	(004212)	-	Sandwich Tern (<i>Sterna sandvicensis</i>) [A191]
Doogort Machair	(004235)	-	Dunlin (<i>Calidris alpina schinzii</i>) [A466]
Duvillaun Islands	(004111)	-	<p>Fulmar (<i>Fulmarus glacialis</i>) [A009]</p> <p>Storm Petrel (<i>Hydrobates pelagicus</i>) [A014]</p> <p>Barnacle Goose (<i>Branta leucopsis</i>) [A045]</p>

Illanmaster	(004074)	-	Storm Petrel (<i>Hydrobates pelagicus</i>) [A014]
Inishglora and Inishkeeragh	(004084)	-	Storm Petrel (<i>Hydrobates pelagicus</i>) [A014] Cormorant (<i>Phalacrocorax carbo</i>) [A017] Shag (<i>Phalacrocorax aristotelis</i>) [A018] Barnacle Goose (<i>Branta leucopsis</i>) [A045] Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183] Herring Gull (<i>Larus argentatus</i>) [A184] Arctic Tern (<i>Sterna paradisaea</i>) [A194]
Inishkea Islands	(004004)	-	Shag (<i>Phalacrocorax aristotelis</i>) [A018] Barnacle Goose (<i>Branta leucopsis</i>) [A045] Ringed Plover (<i>Charadrius hiaticula</i>) [A137] Sanderling (<i>Calidris alba</i>) [A144] Purple Sandpiper (<i>Calidris maritima</i>) [A148] Turnstone (<i>Arenaria interpres</i>) [A169] Common Gull (<i>Larus canus</i>) [A182] Herring Gull (<i>Larus argentatus</i>) [A184] Arctic Tern (<i>Sterna paradisaea</i>) [A194]

			<p>Little Tern (<i>Sterna albifrons</i>) [A195]</p> <p>Dunlin (<i>Calidris alpina schinzii</i>) [A466]</p>
Killala Bay/Moy Estuary	(004036)	-	<p>Ringed Plover (<i>Charadrius hiaticula</i>)</p> <p>Golden Plover (<i>Pluvialis apricaria</i>) [</p> <p>Grey Plover (<i>Pluvialis squatarola</i>)</p> <p>Sanderling (<i>Calidris alba</i>)</p> <p>Dunlin (<i>Calidris alpina</i>)</p> <p>Bar-tailed Godwit (<i>Limosa lapponica</i>)</p> <p>Curlew (<i>Numenius arquata</i>)</p> <p>Redshank (<i>Tringa totanus</i>)</p> <p>Wetland and Waterbirds</p>
Lough Carra	(004051)	-	<p>Common Gull (<i>Larus canus</i>)</p>
Lough Conn and Lough Cullin	(004228)	-	<p>Tufted Duck (<i>Aythya fuligula</i>)</p> <p>Common Scoter (<i>Melanitta nigra</i>)</p> <p>Common Gull (<i>Larus canus</i>)</p> <p>Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>)</p> <p>Wetland and Waterbirds</p>
Lough Corrib	(004042)	-	<p>Gadwall (<i>Anas strepera</i>)</p> <p>Shoveler (<i>Anas clypeata</i>)</p> <p>Pochard (<i>Aythya ferina</i>)</p> <p>Tufted Duck (<i>Aythya fuligula</i>)</p>

			<p>Common Scoter (<i>Melanitta nigra</i>)</p> <p>Hen Harrier (<i>Circus cyaneus</i>)</p> <p>Coot (<i>Fulica atra</i>)</p> <p>Golden Plover (<i>Pluvialis apricaria</i>)</p> <p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>)</p> <p>Common Gull (<i>Larus canus</i>)</p> <p>Common Tern (<i>Sterna hirundo</i>)</p> <p>Arctic Tern (<i>Sterna paradisaea</i>)</p> <p>Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>)</p> <p>Wetland and Waterbirds</p>
Lough Mask	(004062)	-	<p>Tufted Duck (<i>Aythya fuligula</i>)</p> <p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>)</p> <p>Common Gull (<i>Larus canus</i>)</p> <p>Lesser Black-backed Gull (<i>Larus fuscus</i>)</p> <p>Common Tern (<i>Sterna hirundo</i>)</p> <p>Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>)</p> <p>Wetland and Waterbirds</p>
Mullet Peninsula	(004227)	-	<p>Corncrake (<i>Crex crex</i>)</p>
Owenduff/Neph in Complex	(004098)	-	<p>Merlin (<i>Falco columbarius</i>)</p>

			Golden Plover (<i>Pluvialis apricaria</i>)
Stags of Broad Haven	(004072)	-	Storm Petrel (<i>Hydrobates pelagicus</i>) Leach's Storm-petrel (<i>Oceanodroma leucorhoa</i>)
Termoncarragh Lake and Annagh Machair	(004093)	-	Whooper Swan (<i>Cygnus cygnus</i>) Barnacle Goose (<i>Branta leucopsis</i>) Corncrake (<i>Crex crex</i>) Lapwing (<i>Vanellus vanellus</i>) Chough (<i>Pyrhacorax pyrrhacorax</i>) Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) Dunlin (<i>Calidris alpina schinzii</i>) Wetland and Waterbirds

Table A.2: Natura 2000 Sites within 15km of the Mayo County Border

Site Name	Site Code	Qualifying Interests (QI's)	
		Habitats	Species
SAC's			
Inishbofin And Inishshark	000278	Coastal lagoons [1150] Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110] Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010] European dry heaths [4030]	<i>Halichoerus grypus</i> (Grey Seal) [1364]
Kilsallagh Bog	000285	Active raised bogs [7110]	-

		<p>Degraded raised bogs still capable of natural regeneration [7120]</p> <p>Depressions on peat substrates of the Rhynchosporion [7150]</p>	
Lough Corrib	000297	<p>Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110]</p> <p>Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130]</p> <p>Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140]</p> <p>Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260]</p> <p>Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210]</p> <p>Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]</p> <p>Active raised bogs [7110]</p> <p>Degraded raised bogs still capable of natural regeneration [7120]</p> <p>Depressions on peat substrates of the Rhynchosporion [7150]</p> <p>Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]</p> <p>Petrifying springs with tufa formation (Cratoneurion) [7220]</p>	<p>Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]</p> <p>Austropotamobius pallipes (White-clawed Crayfish) [1092]</p> <p>Petromyzon marinus (Sea Lamprey) [1095]</p> <p>Lampetra planeri (Brook Lamprey) [1096]</p> <p>Salmo salar (Salmon) [1106]</p> <p>Rhinolophus hipposideros (Lesser Horseshoe Bat) [1303]</p> <p>Lutra lutra (Otter) [1355]</p> <p>Drepanocladus vernicosus (Slender Green Feather-moss) [1393]</p> <p>Najas flexilis (Slender Naiad) [1833]</p>

		<p>Alkaline fens [7230]</p> <p>Limestone pavements [8240]</p> <p>Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]</p> <p>Bog woodland [91D0]</p>	
Killala Bay/Moy Estuary	000458	<p>Estuaries [1130]</p> <p>Mudflats and sandflats not covered by seawater at low tide [1140]</p> <p>Annual vegetation of drift lines [1210]</p> <p>Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]</p> <p>Salicornia and other annuals colonising mud and sand [1310]</p> <p>Atlantic salt meadows (Glauco-Puccinellietalia maritima) [1330]</p> <p>Embryonic shifting dunes [2110]</p> <p>Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120]</p> <p>Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]</p> <p>Humid dune slacks [2190]</p>	<p>Vertigo angustior (Narrow-mouthed Whorl Snail) [1014]</p> <p>Petromyzon marinus (Sea Lamprey) [1095]</p> <p>Phoca vitulina (Harbour Seal) [1365]</p>
Bellanagare Bog	000592	<p>Active raised bogs [7110]</p> <p>Degraded raised bogs still capable of natural regeneration [7120]</p> <p>Depressions on peat substrates of the Rhynchosporion [7150]</p>	
Callow Bog	000595	<p>Active raised bogs [7110]</p>	

		Degraded raised bogs still capable of natural regeneration [7120] Depressions on peat substrates of the Rhynchosporion [7150]	
Cloonchambers Bog	000600	Active raised bogs [7110] Degraded raised bogs still capable of natural regeneration [7120] Depressions on peat substrates of the Rhynchosporion [7150]	
Lough Hoe Bog	000633	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110] Blanket bogs (* if active bog) [7130]	Vertigo geyeri (Geyer's Whorl Snail) [1013] Austroptomobius pallipes (White-clawed Crayfish) [1092]
Lough Nabrickkeagh Bog	000634	Blanket bogs (* if active bog) [7130]	
Templehouse And Cloonacleigha Loughs	000636	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140] Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260]	
Turloughmore (Sligo)	000637	Turloughs [3180]	
Aughrusbeg Machair And Lake	001228	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110] Northern Atlantic wet heaths with Erica tetralix [4010]	
Rusheenduff Lough	001311	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoetes-Nanojuncetea [3130] Najas flexilis (Slender Naiad) [1833]	
Ross Lake And Woods	001312	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140]	Rhinolophus hipposideros (Lesser Horseshoe Bat) [1303]

Urlaur Lakes	001571	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140]	
Lough Carra/Mask Complex	001774	<p>Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110]</p> <p>Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130]</p> <p>Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140]</p> <p>European dry heaths [4030]</p> <p>Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210]</p> <p>Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]</p> <p>Alkaline fens [7230]</p> <p>Limestone pavements [8240]</p> <p>Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]</p>	<p>Rhinolophus hipposideros (Lesser Horseshoe Bat) [1303]</p> <p>Lutra lutra (Otter) [1355]</p> <p>Drepanocladus vernicosus (Slender Green Feather-moss) [1393]</p>
Unshin River	001898	<p>Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260]</p> <p>Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210]</p> <p>Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]</p>	<p>Salmo salar (Salmon) [1106]</p> <p>Lutra lutra (Otter) [1355]</p>

		Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) [91E0]	
Ox Mountains Bogs	002006	<p>Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110]</p> <p>Natural dystrophic lakes and ponds [3160]</p> <p>Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]</p> <p>European dry heaths [4030]</p> <p>Blanket bogs (* if active bog) [7130]</p> <p>Transition mires and quaking bogs [7140]</p> <p>Depressions on peat substrates of the <i>Rhynchosporion</i> [7150]</p>	<p><i>Vertigo geyeri</i> (Geyer's Whorl Snail) [1013]</p> <p><i>Saxifraga hirculus</i> (Marsh Saxifrage) [1528]</p>
Maumturk Mountains	002008	<p>Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110]</p> <p>Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]</p> <p>Alpine and Boreal heaths [4060]</p> <p>Blanket bogs (* if active bog) [7130]</p> <p>Depressions on peat substrates of the <i>Rhynchosporion</i> [7150]</p> <p>Siliceous rocky slopes with chasmophytic vegetation [8220]</p>	<p><i>Salmo salar</i> (Salmon) [1106]</p> <p><i>Najas flexilis</i> (Slender Naiad) [1833]</p>
The Twelve Bens/Garraun Complex	002031	<p>Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110]</p>	<p><i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029]</p> <p><i>Salmo salar</i> (Salmon) [1106]</p>

		<p>Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130]</p> <p>Alpine and Boreal heaths [4060]</p> <p>Blanket bogs (* if active bog) [7130]</p> <p>Depressions on peat substrates of the Rhynchosporion [7150]</p> <p>Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110]</p> <p>Calcareous rocky slopes with chasmophytic vegetation [8210]</p> <p>Siliceous rocky slopes with chasmophytic vegetation [8220]</p> <p>Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]</p>	<p>Lutra lutra (Otter) [1355]</p> <p>Najas flexilis (Slender Naiad) [1833]</p>
<p>Connemara Bog Complex</p>	<p>002034</p>	<p>Coastal lagoons [1150]</p> <p>Reefs [1170]</p> <p>Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110]</p> <p>Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130]</p> <p>Natural dystrophic lakes and ponds [3160]</p> <p>Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260]</p> <p>Northern Atlantic wet heaths with Erica tetralix [4010]</p> <p>European dry heaths [4030]</p>	<p>Euphydryas aurinia (Marsh Fritillary) [1065]</p> <p>Salmo salar (Salmon) [1106]</p> <p>Lutra lutra (Otter) [1355]</p> <p>Najas flexilis (Slender Naiad) [1833]</p>

		<p>Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]</p> <p>Blanket bogs (* if active bog) [7130]</p> <p>Transition mires and quaking bogs [7140]</p> <p>Depressions on peat substrates of the Rhynchosporion [7150]</p> <p>Alkaline fens [7230]</p> <p>Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]</p>	
Corliskea/Trien/Cloonfellov Bog	002110	<p>Active raised bogs [7110]</p> <p>Degraded raised bogs still capable of natural regeneration [7120]</p> <p>Depressions on peat substrates of the Rhynchosporion [7150]</p> <p>Bog woodland [91D0]</p>	
River Moy	002298	<p>Active raised bogs [7110]</p> <p>Degraded raised bogs still capable of natural regeneration [7120]</p> <p>Depressions on peat substrates of the Rhynchosporion [7150]</p> <p>Alkaline fens [7230]</p> <p>Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]</p> <p>Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]</p>	<p>Austropotamobius pallipes (White-clawed Crayfish) [1092]</p> <p>Petromyzon marinus (Sea Lamprey) [1095]</p> <p>Lampetra planeri (Brook Lamprey) [1096]</p> <p>Salmo salar (Salmon) [1106]</p> <p>Lutra lutra (Otter) [1355]</p>
Drumalough Bog	002338	<p>Active raised bogs [7110]</p> <p>Degraded raised bogs still capable of natural regeneration [7120]</p> <p>Depressions on peat substrates of the Rhynchosporion [7150]</p>	
West Connacht Coast	002998		Tursiops truncatus (Common Bottlenose Dolphin) [1349]
Croaghill Turlough	000255	Turloughs [3180]	
Ballymaglancy Cave, Cong	000474	Caves not open to the public [8310]	Rhinolophus hipposideros (Lesser Horseshoe Bat) [1303]

Errit Lough	000607	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140]	
Knockalongy and Knockachree Cliffs	001669		Trichomanes speciosum (Killarney Fern) [1421]
Tully Lough	002130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130]	Najas flexilis (Slender Naiad) [1833]
Tullaghanrock Bog	002354	Active raised bogs [7110] Degraded raised bogs still capable of natural regeneration [7120] Depressions on peat substrates of the Rhynchosporion [7150]	
Lisnageeragh Bog and Ballinastack Turlough	000296	Turloughs [3180] Active raised bogs [7110] Degraded raised bogs still capable of natural regeneration [7120] Depressions on peat substrates of the Rhynchosporion [7150]	
Cloonshanvill e Bog	000614	Active raised bogs [7110] Degraded raised bogs still capable of natural regeneration [7120] Depressions on peat substrates of the Rhynchosporion [7150] Bog woodland [91D0]	
Tully Mountain	000330	European dry heaths [4030] Alpine and Boreal heaths [4060]	
Carrowbehy/C aher Bog	000597	Active raised bogs [7110] Degraded raised bogs still capable of natural regeneration [7120]	

		Depressions on peat substrates of the Rhynchosporion [7150]	
Derrinea Bog	000604	Active raised bogs [7110] Degraded raised bogs still capable of natural regeneration [7120] Depressions on peat substrates of the Rhynchosporion [7150]	
Coolcam Turlough	000218	Turloughs [3180]	
Williamstown Turloughs	002296	Turloughs [3180]	
Bricklieve Mountains and Keishcorran	001656	Turloughs [3180] Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210] Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510] Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii) [8120]	Euphydrias aurinia (Marsh Fritillary) [1065] Austropotamobius pallipes (White-clawed Crayfish) [1092]
Gortnandarragh Limestone Pavement	001271	Limestone pavements [8240]	
Lough Corrib	000297	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] Water courses of plain to montane levels with the Ranunculion fluitantis and	Margaritifera margaritifera (Freshwater Pearl Mussel) [1029] Austropotamobius pallipes (White-clawed Crayfish) [1092] Petromyzon marinus (Sea Lamprey) [1095] Lampetra planeri (Brook Lamprey) [1096] Salmo salar (Salmon) [1106] Rhinolophus hipposideros (Lesser Horseshoe Bat) [1303] Lutra lutra (Otter) [1355] Drepanocladus vernicosus (Slender Green Feather-moss) [1393] Najas flexilis (Slender Naiad) [1833]

		<p>Callitricho-Batrachion vegetation [3260]</p> <p>Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210]</p> <p>Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]</p> <p>Active raised bogs [7110]</p> <p>Degraded raised bogs still capable of natural regeneration [7120]</p> <p>Depressions on peat substrates of the Rhynchosporion [7150]</p> <p>Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]</p> <p>Petrifying springs with tufa formation (Cratoneurion) [7220]</p> <p>Alkaline fens [7230]</p> <p>Limestone pavements [8240]</p> <p>Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]</p> <p>Bog woodland [91D0]</p>	
SPAs			
Killala Bay/ Moy Estuary	004036	-	<p>Ringed Plover (<i>Charadrius hiaticula</i>) [A137]</p> <p>Golden Plover (<i>Pluvialis apricaria</i>) [A140]</p> <p>Grey Plover (<i>Pluvialis squatarola</i>) [A141]</p> <p>Sanderling (<i>Calidris alba</i>) [A144]</p>

			<p>Dunlin (<i>Calidris alpina</i>) [A149]</p> <p>Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</p> <p>Curlew (<i>Numenius arquata</i>) [A160]</p> <p>Redshank (<i>Tringa totanus</i>) [A162]</p> <p>Wetland and Waterbirds [A999]</p>
Lough Corrib	004042	-	<p>Gadwall (<i>Anas strepera</i>) [A051]</p> <p>Shoveler (<i>Anas clypeata</i>) [A056]</p> <p>Pochard (<i>Aythya ferina</i>) [A059]</p> <p>Tufted Duck (<i>Aythya fuligula</i>) [A061]</p> <p>Common Scoter (<i>Melanitta nigra</i>) [A065]</p> <p>Hen Harrier (<i>Circus cyaneus</i>) [A082]</p> <p>Coot (<i>Fulica atra</i>) [A125]</p> <p>Golden Plover (<i>Pluvialis apricaria</i>) [A140]</p> <p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]</p> <p>Common Gull (<i>Larus canus</i>) [A182]</p> <p>Common Tern (<i>Sterna hirundo</i>) [A193]</p> <p>Arctic Tern (<i>Sterna paradisaea</i>) [A194]</p> <p>Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395]</p> <p>Wetland and Waterbirds [A999]</p>

Lough Gara	004048	-	Whooper Swan (<i>Cygnus cygnus</i>) [A038] Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395]
Lough Mask	004062	-	Tufted Duck (<i>Aythya fuligula</i>) [A061] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Common Gull (<i>Larus canus</i>) [A182] Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183] Common Tern (<i>Sterna hirundo</i>) [A193] Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395] Wetland and Waterbirds [A999]
Bellanagare Bog	004105	-	Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395]
High Island, Inishshark and Davillaun	004144	-	Fulmar (<i>Fulmarus glacialis</i>) [A009] Barnacle Goose (<i>Branta leucopsis</i>) [A045] Arctic Tern (<i>Sterna paradisaea</i>) [A194]
Illaunnaon	004221	-	Sandwich Tern (<i>Sterna sandvicensis</i>) [A191]
Inishbofin, Omev Island and Turbot Island	004231	-	Corncrake (<i>Crex crex</i>) [A122]

Table A.3: NHAs within 15km of the Mayo County Border

Site Name	Site Code	Qualifying Interests (QI's)	
		Habitats	Species
NHAs			
Tristia Bog	(001566)	Peatlands	-
Tullaghan Bay and Bog	(001567)	Peatlands	-
Ummerantarry Bog	(001570)	Peatlands	-
Tawnymackan Bog	(000548)	Peatlands	-
Sraheens Bog	(002403)	Peatlands	-
Pollatomish Bog	(001548)	Peatlands	-
Lough Greney Bog	(002455)	Peatlands	-
Inagh Bog	(002391)	Peatlands	-
Glenturk More Bog	(002419)	Peatlands	-
Forrew Bog	(002432)	Peatlands	-
Ederglen Bog	(002446)	Peatlands	-
Doogort East Bog	(002381)	Peatlands	-
Croaghmoyle Mountain	(002383)	Peatlands	-
Cunnagher More Bog	(002420)	Peatlands	-
Bangor Erris Bog	(001473)	Peatlands	-

Table A.4: NHAs within 15km of the Mayo County Border

Site Name	Site Code	Qualifying Interests (QI's)	
		Habitats	Species
NHAs			
Lough Namucka Bog	000220	Peatlands [4]	-
Moorfield Bog/Farm Cottage	000221	Peatlands [4]	-
Bracklagh Bog	000235	Peatlands [4]	-
Slieve Bog	000247	Peatlands [4]	-
Bella Bridge Bog	000591	Peatlands [4]	-
Cornaveagh Bog	000603	Peatlands [4]	-
Cloon And Laghtanabba Bog	002374	Peatlands [4]	-
Tooreen Bog	002436	Peatlands [4]	-
Moycullen Bogs	002364	Peatlands [4]	-
Oughterard District Bog	002431	Peatlands [4]	-

Appendix B

Assessment of Significant
Effects on Natura 2000 Sites-
Proposed Adaptation Actions

Draft

B1 Assessment of Potential for Significant Effects on Natura 2000 Sites within the Zone of Influence

Table B.1 Assessment of Potential for Significant Effects- Proposed Adaptation Actions

		Potential for Significant Effects on Natura 2000 sites
No	Governance and Support Actions	
1	<p>Climate Adaptation Steering Group To ensure that the Goal, Objectives and Actions are achievable, establish a dedicated Adaptation Steering Group to ensure the successful implementation of the Mayo Climate Adaptation Strategy</p> <p>Climate Adaptation Steering Group will manage and oversee the delivery of the Adaptation Actions and the mainstreaming of Climate Adaptation into all plans, programmes, strategies and policies of Mayo County Council</p> <p>Develop Implementation Plans for each Adaptation Action and monitor and report on progress</p> <p>Through the Steering Group and/or its sub groups facilitate potential partnerships and/or funding sources to take forward projects across the county</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by facilitating the successful delivery of the proposed Adaptation Actions. The establishment of the Climate Adaptation Steering Group does not have potential for significant negative effects on Natura 2000 sites.</p>
2	<p>Corporate Plan Include the objective of being Climate Ready as a Strategic Goal of the Corporate Plan and prepare an annual progress report on the Strategy which will be submitted to the Council with the draft budget.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by integrating climate adaptation as a Strategic Goal of the Corporate Plan. The Council are committed to delivering the strategic goals of the Corporate Plan, and their corresponding actions over the Plan period. Implementation of the Corporate Plan does not have potential for significant negative effects on Natura 2000 sites.</p>
3	<p>Sectoral Adaptation Plans Build and strengthen partnerships and promote cross-sectoral communication and cooperation in the implementation of Local Authority and Sectoral Adaptation Plans</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by ensuring that the Adaptation Actions proposed under the Draft Adaptation</p>

		<p>Potential for Significant Effects on Natura 2000 sites</p> <p>Strategy are complementary and mutually reinforcing with those of Sectoral Adaptation plans, thus avoiding conflicting outcomes.</p> <p>The Sectoral Adaptation Plans will be subject to AA, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted.</p>
4	<p>Mapping & Identification of Vulnerable Areas</p> <p>Establish and develop an evidence database on projected changes and the effects of weather events in Mayo, to aid mapping and identification of areas at risk and inform risk assessments, contingency planning, adaptation planning and decision-making</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by identifying those areas most at risk to climate change and ensuring contingency and adaptation planning is focused in these areas. The Mapping and Identification of Vulnerable Areas does not have potential for significant negative effects on Natura 2000 sites.</p>
5	<p>Support to Local Climate Action</p> <p>Support the local implementation of climate change policy by identifying how local priorities can be pursued in line with climate change objectives to ensure that all forms of climate inequality are reduced.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo through supporting local level climate change objectives and the actions of community groups.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
6	<p>Communication of Implications of Climate Change on Natural and Cultural Assets</p> <p>Support the use of long-term datasets and publication, and the promotion of information describing the implications of climate change on Mayo's natural and cultural assets, through websites, public information etc.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo through increased community awareness of the risk and range of changes and their impacts.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>

		Potential for Significant Effects on Natura 2000 sites
No	Goal 1 Actions: Increase the Resilience of Critical Infrastructure & Buildings to Climate Change by Planning and Implementing Appropriate Adaptation Measures	
1	<p>County & Local Area Development Plans</p> <p>Integrate climate change and the Climate Adaptation Strategy (and mitigation) into the County and Local Area Development Plan, and apply planning policies to reduce the vulnerability of Mayo County Council to the effects of climate change</p> <p>Promote quality climate resilient and sustainable design and construction</p> <p>Promote the role of the natural environment to promote climate adaptation through promoting green infrastructure, such as living roofs and walls in appropriate locations</p> <p>Promote the design and construction of new developments to create low carbon, walkable neighbourhoods and work places containing high quality green and blue infrastructure.</p> <p>Review the SUDs design requirements within the County and Local Area Development Plans</p> <p>Ensure new developments are not at risk from coastal, fluvial, pluvial or ground water flooding as per the Flood Planning Guidelines</p> <p>Protect open spaces, with multifunctional green and blue infrastructure in developments, with connections to the wider network of open spaces and habitats</p> <p>Develop sustainable land use planning policies which facilitates transportation efficiency, economic returns on transport investment, minimisation of environmental effects and a general shift towards the use of low carbon public transportation throughout the county</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by ensuring that the Adaptation Actions are implemented at local level, through the Irish Planning system.</p> <p>All County or Local Area Plans, and their relevant policies and objectives will be subject to AA prior to adoption, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
2	<p>New Development Checklist & Guidance</p> <p>Develop and implement a Design Checklist and Guidance Document for new developments to take account of climate change over the lifetime of a development, especially with regard to its location, site layout, buildings, ventilation and cooling, drainage, water, outdoor spaces and connectivity. New Development should incorporate green infrastructure as a mechanism for carbon offset within the project.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by ensuring that new development proposed within County Mayo takes account of climate change in its design, in order to increase resilience to the same.</p> <p>New development will be subject to AA at project level, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>

		Potential for Significant Effects on Natura 2000 sites
<p>3</p>	<p>Promoting Sustainable Solutions Contribute to raising awareness of sustainability solutions at an early stage in the design process for new public and private infrastructure.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by ensuring that new development proposed within County Mayo takes account of climate change in its design, in order to increase resilience to the same.</p> <p>New development will be subject to AA at project level, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
<p>4</p>	<p>Flooding & New Developments Future infrastructure and buildings to be planned and built in consideration of future flood risk projections. Review and update periodically the flood risk zones for coastal, fluvial, pluvial and groundwater flood to ensure that they take account of projected climate change, OPW flood maps, local knowledge and events, research and other sources of data to inform planning decisions. Ensure robust site-specific Flood Risk Assessments are prepared for new infrastructure and buildings that inform planning decisions and suitable adaptation requirements in line with the guidelines on the planning System and Flood Risk Management. Ensure urban storm water drainage systems for new development take into account the potential future effects of climate change in their designs, particularly the projected increase in intense rainfall events, and include the use of sustainable drainage systems.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by endeavoring to ensure that new development is resilient to project climate change related flood events.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
<p>5</p>	<p>Infrastructure Risk Register Carry out a risk assessment of the likely effects of climate change and their effect on key infrastructure and the built environment and use it to inform adaptation policy. Develop a register of critical equipment, systems and assets at risk from existing and project climate events</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by identifying key risks to infrastructure and the built environment and introducing measures to ensure that the upmost resilience to these risks is achieved.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p>

		Potential for Significant Effects on Natura 2000 sites
	<p>Put in place a monitoring plan to inspect the integrity of existing infrastructure, particularly elements at risk from extreme events, to determine their physical condition, and ability to deal with projected climate change</p> <p>Identify and implement any operational measures to isolate and protect critical infrastructure/ equipment to reduce the risk/impact from climate events and develop necessary maintenance/upgrade programme to prolong the lifespan and address climate risk.</p> <p>Identify backup and contingency plans for climate events that have the potential to impact critical infrastructure, the failure of which would have major consequences and/or a cascading effect on other services.</p>	<p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
<p>6</p>	<p>Data Capture of Effects of Extreme Climate Events</p> <p>Research, collate and document the full effects of extreme climate events in Mayo, including areas and infrastructure impacted, people/communities affected, resources deployed during and after the event, the full cost of repairs and/or replacement of infrastructure, increased maintenance costs and impact on service delivery</p> <p>Capture the effects of climate events on critical infrastructure and buildings through GIS mapping to help identify hazards and vulnerable areas to allow for future adaptation planning</p> <p>Develop a reporting and information sharing system that allows for the assessment of the full effects of climate change and supports a true economic evaluation of adaptation projects in the future</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by facilitating the Council and communities to benefit from ‘lessons learned’ with regards climate change impacts and measures to remedy the same.</p> <p>This Action will also assist in identifying those areas most at risk to climate change to ensure contingency and adaptation planning is focused in these areas and increasing community awareness of the risk and range of changes and their impacts.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
<p>7</p>	<p>Promote Opportunities through Green Infrastructure</p> <p>Identify opportunities to increase the climate resilience of infrastructure and the built environment through natural greening measures in new developments (and retrofit of existing), such as the use of natural features (e.g. street trees, green roofs, rain gardens etc) and other materials such as permeable paving.</p> <p>Develop mechanisms and communications channels to ensure adaptation and green infrastructure are promoted and embedded in future development and maintenance works, and connect with developers to showcase high quality, climate friendly and adapted infrastructure and building projects.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by ensuring that new development proposed within County Mayo takes account of climate change in its design, through natural greening measures, in order to increase resilience to the same.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p>

		Potential for Significant Effects on Natura 2000 sites
	Identify sites or projects for temporary greening on vacant and derelict land.	No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.
8	<p>Road Design & Maintenance Standards</p> <p>Research and work with TII to develop guidance on maintenance and design standards that address future climate change projections that impact on road structures, lifespan and use; Integrating climate change considerations at design / potential re-design stages; Explore the climate resilience of materials used in road construction and road finish; Examine options to reduce road settlement deterioration occurring from severe weather events</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by supplying guidance for the provision of more climate-resilient roads.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
9	<p>Roads Risk Register & Remedial Action List</p> <p>Undertake a Risk Assessment of all public road infrastructure in Mayo to identify the potential hazards, effects and consequences of climate change and climate events on their function and conditions.</p> <p>Develop and implement a Remedial Action List of public roads identified in the risk assessment and integrate into decision making processes for the road infrastructure programmes; design, planning and maintenance</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by supplying guidance for the provision of more climate-resilient roads.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
10	<p>Integrated Coastal Zone Management Plan</p> <p>Engage stakeholders to identify how Mayo can adapt to accommodate a dynamic and changing coast and live with increased coastal flood and erosion risk</p> <p>Identify research and case studies, develop Guidance and Policies, and implement Coastal Restoration Plans to preserve, enhance and develop protective habitats of coastal ecosystems, dunes and wetlands, to protect critical infrastructure and assets from damaging storm surges</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by increasing the resilience of the coastal zone, and existing and proposed development in proximity, to climate change, and by making provisions for the protection of coastal ecosystems.</p> <p>Where Adaptation Actions give rise to other plans or programmes which could be considered to constitute the definition of the same under the Habitats Regulations, the plan or programme should be subject to AA prior to adoption, as required.</p>

		Potential for Significant Effects on Natura 2000 sites
	Develop an Integrated Coastal Zone Management Plan for County Mayo to ensure new developments take account of future risk from coastal erosion/storm surges and sea level rise, including the identification and restriction of development in coastal erosion zones where appropriate, and ecosystem-based adaptation actions to manage climate risk and build resilience to climate change.	No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.
11	<p>Increase the Resilience of Housing & Building Stock</p> <p>Increase awareness of private house owners and housing stock tenants to potential effects on housing from climate change events and how best to look after their home to avoid or reduce effects. This is to include updating the tenant’s handbook and the online communication and social media plan to provide the necessary climate change resilience.</p> <p>Identify old and derelict buildings that may cause a risk to public safety during extreme weather events and take appropriate action.</p> <p>Assess the vulnerability of the housing stock and Council buildings to climate events, such as flooding or storms.</p> <p>Review maintenance and repair standards, frequency and procedures for housing stock and Council buildings to address the expected increase in structural deterioration during extreme events.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by increasing community awareness of the risk of climate change and its associated impacts, and by enabling residents to take action to avoid or reduce these risks. It will also assist the Council in identifying the most vulnerable housing stock and address the expected increase in structural deterioration of the same.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
12	<p>Planning for Resilient Energy Networks</p> <p>Encourage and enhance cooperation and communication with energy and service providers to ensure that energy infrastructure and services are resilient to the effects of climate change.</p> <p>Encourage energy network companies and utility service providers to take account of climate change and its effects in the design, planning, maintenance and development of energy and services networks and infrastructure by way of development plan policy and through the development management process.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by increasing the resilience of existing and proposed energy infrastructure to the impacts of climate change.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>

		Potential for Significant Effects on Natura 2000 sites
13	<p>Risk Assessment for Waste Management Activities</p> <p>Carry out a Risk Assessment of the potential effects of climate change on Mayo County Council waste management facilities to identify sites and processes most affected by climate change, and formulate appropriate action plans to address the potential effects</p> <p>Work with the Connaught/Ulster Regional Waste Management Office, waste regulators and waste companies to build a shared understanding of the potential effects of climate change on waste management policies and practices, and identify adaptation actions for waste management processes; engineering, operational, investment etc.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by identifying key risks waste management facilities and identifying and formulating action plans to mitigate potential risks.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action</p>
No	Goal 2 Actions: Increase the Resilience of our Natural & Cultural Capital to Climate Change by Planning and Implementing Appropriate Adaption Measures	
1	<p>Build Awareness of Nature Based Adaptation Solutions</p> <p>Identify and promote nature-based solutions as potential low-cost win-win climate change adaptation and mitigation solutions to;</p> <p>Mitigate the effect of extreme weather events - reduce the impact of heavy rain and floods, improve the effectiveness of SUDs, improve air quality, and help reduce the urban heat effect through tree planting.</p> <p>Help nature to adapt to climate change by strengthening habitat networks.</p> <p>Reduce habitat fragmentation and provide opportunities for species to migrate.</p> <p>Promote the restoration of natural processes as a means of increasing resilience.</p> <p>Research and map areas considered beneficial for use as local carbon offset through carbon sequestration.</p> <p>Develop and implement an awareness campaign around the role of the natural environment and its positive contribution to Climate Action (adaptation & mitigation).</p> <p>Encourage the use of information boards at amenity, tourism, wilderness, natural landscape, cultural heritage and other appropriate locations across the county to bring awareness and encourage respect of the benefits of natural environment and its role in Climate Action.</p> <p>Through the Arts Programme, raise awareness of climate change and the importance and potential for green solutions to tackle climate change.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo through the provision of nature-based, low-cost solutions to climate change adaptation.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>

		Potential for Significant Effects on Natura 2000 sites
2	<p>Biodiversity Management Plans Review Biodiversity Management Plans, Site Management Plans and other conservation strategies, plans and projects to ensure that: The risks from current and projected climate change have been identified. These risks are addressed, and wherever possible incorporate adaptation measure. The carbon capture within habitats is considered. An examination of the changes of seasonality are considered.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by ensuring all biodiversity related risks are identified and addressed, where possible.</p> <p>Where Adaptation Actions give rise to other plans or programmes which could be considered to constitute the definition of the same under the Habitats Regulations, the plan or programme should be subject to AA prior to adoption, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action</p>
3	<p>Support Biodiversity through Natural Pollination Review the National Pollinator Plan to explore how Mayo County Council can support and a diversity of plant species to increase food sources and habitats for pollinators. Explore ways to reduce the impact of a longer growing season on lifecycles of bees and other pollinators in terms of food availability and lifecycles mismatch.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by seeking to reduce the impact of a longer growing season on bees and other pollinators.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
4	<p>Neighbourhood Climate Action Plans Develop Neighbourhood Climate Action Plans to enhance, conserve and protect Biodiversity and green infrastructure.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo through the enhancement, conservation and protection of biodiversity and green infrastructure from the impacts of climate change.</p> <p>Where Adaptation Actions give rise to other plans or programmes which could be considered to constitute the definition of the same under the Habitats Regulations, the plan or programme should be subject to AA prior to adoption, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>

		Potential for Significant Effects on Natura 2000 sites
<p>5</p>	<p>Invasive Species Management Plan Review the Invasive Species Management Plan to ensure that; the relevant risks from current and projected climate change have been identified; invasive species whose spread is linked with climate change are identified; and appropriate management techniques for their control are developed. Establish an invasive species programme to monitor the spread of terrestrial, aquatic and marine invasive species in a changing climate and control, invasive species where their spread is considered problematic.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by ensuring that projected climate change is taken into consideration in Invasive Species Management Plans and ensuring invasive species whose spread is linked with climate change are identified and managed.</p> <p>Where Adaptation Actions give rise to other plans or programmes which could be considered to constitute the definition of the same under the Habitats Regulations, the plan or programme should be subject to AA prior to adoption, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
<p>6</p>	<p>Peatland Management Plan Identify damaged Peatlands in the county and those at risk from climate change and becoming carbon emitters. Develop a Peatland Management Strategy to conserve and manage of Mayo’s peatlands, particularly those sites nominated for designation as Special Areas of Conservation and Natural Heritage Area, to preserve the habitat and their role as carbon sinks.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by endeavoring to preserve peatland habitat in Mayo and their role as carbon sinks.</p> <p>Where Adaptation Actions give rise to other plans or programmes which could be considered to constitute the definition of the same under the Habitats Regulations, the plan or programme should be subject to AA prior to adoption, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
<p>7</p>	<p>Database of Effects on the Natural Environment Establish and develop an evidence database of ecosystem health measures and indicators of the effects of climate change, and their impact on the natural environment, that will inform adaptation policy and management.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by identifying measures and indicators of climate change impacts on the natural environment in order to inform adaptation policy and management.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>

		Potential for Significant Effects on Natura 2000 sites
8	<p>Climate Action in Agriculture and Local Food Supply Foster and support the development of resilience in local food supply systems and communities. Implement the Agricultural Strategy.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo through enhanced resilience in local food supply.</p> <p>Where Adaptation Actions give rise to other plans or programmes which could be considered to constitute the definition of the same under the Habitats Regulations, the plan or programme should be subject to AA prior to adoption, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
9	<p>Promotion of Green Infrastructure Promote green infrastructure and sustainable design in the built environment to help nature to adapt to climate change by strengthening habitat networks, reducing habitat fragmentation and providing opportunities for species to migrate. Undertake natural capital accounting in all sectors to ensure natural capital is being valued and Ecosystem Based Adaptation and green Infrastructure options are being employed.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo through the strengthening of habitat networks, reducing habitat fragmentation and providing opportunities for species to migrate.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
10	<p>Enhancement & Restoration of Natural Systems Work with the Department of Culture, Heritage & the Gaeltacht to enhance and restore natural systems through management to increase resilience – starting with hydrological processes (freshwater and marine), carbon processes (for bogs) and pollination.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo through the enhancement and restoration of natural systems to increase resilience to climate change.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>

		Potential for Significant Effects on Natura 2000 sites
11	<p>Species Spatial Responses Identify and implement measures to reduce the barrier effects of roads, railways and technical objects in rivers and streams to facilitate species spatial responses to climate change.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by facilitating species spatial responses to climate change.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
12	<p>Cultural & Heritage Risk Register, Monitoring & Maintenance Strategy Develop a climate risk register of cultural and heritage sites/assets in the county to include a consideration of flood risk and sea level rise, high temperatures, extreme wind and precipitation events and increased tourism. Monitor the effects of climate change on cultural and heritage sites/assets in the county to inform adaptation policy and management and support the appropriate maintenance and repair programmes. Engage with communities to develop community-based adaptation plans.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by identifying and monitoring risks to features or areas of cultural and natural heritage, and through supporting appropriate maintenance and repair programmes.</p> <p>Where Adaptation Actions give rise to other plans or programmes which could be considered to constitute the definition of the same under the Habitats Regulations, the plan or programme should be subject to AA prior to adoption, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
13	<p>Effects of Cultural & Heritage losses on Tourism Carry out an analyse potential for loss of tourism resources as a consequence of climate change effects on heritage, cultural and amenity sites. Undertake cost-benefit analysis of adaptation investment for high risk sites which are also priority for tourism.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by investigating the feasibility of implementing adaptation investment measures for sites of cultural heritage and amenity value.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p>

		Potential for Significant Effects on Natura 2000 sites
		No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action
14	<p>Improved Maintenance Plans for Heritage Works Integrate climate change adaptation into all heritage works and maintenance plans, and redesign, protect or relocate access, visitor services, drainage and other infrastructure to provide maximum protection for heritage against climate effects.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by making provisions for the protection of heritage against climate impacts.</p> <p>Where Adaptation Actions give rise to other plans or programmes which could be considered to constitute the definition of the same under the Habitats Regulations, the plan or programme should be subject to AA prior to adoption, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
No	Goal 3 Actions: Increase the Resilience of Water Resources & Flood Risk Management to Climate Change by Planning and Implementing Appropriate Measures	
1	<p>Flood Protection Schemes Work with the OPW and other organisations to identify and support the development of Major and Minor Flood Protection and Flood Proofing Schemes around the County.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by supporting the development of flood protection and proofing schemes in County Mayo.</p> <p>Flood protection and proofing schemes will be subject to AA, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
2	<p>Register of Hard & Soft Flood Protection Infrastructure Identify and develop a register of existing hard and soft flood protection infrastructure around the county, Carry out a climate resilience review and risk assessment, considering the condition of the infrastructure, the design capacity, and the vulnerability of receptors if the infrastructure fails. Develop a maintenance programme to maintain the integrity of the infrastructure.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by maintaining the integrity of existing flood protection infrastructure in County Mayo.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p>

		Potential for Significant Effects on Natura 2000 sites
		No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.
3	<p>Natural Flood Management Projects</p> <p>Identify opportunities for natural flood management or other enhancement projects arising from the flood risk assessments.</p> <p>Identify areas to increase tree and vegetation cover that could reduce stormwater runoff and protect against erosion, and also lower surface and air temperatures by providing shade and cooling through evapotranspiration.</p> <p>Investigate land management opportunities for water attenuation in council owned lands.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by enhancing flood risk management in the County through natural flood management measures.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
4	<p>Flood Buffer Zones</p> <p>Identify protective measures and acquisitions to manage ecosystems in buffer zones along rivers, lakes, reservoirs and coasts for flood control and water quality management.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by enhancing flood control and water quality management through natural management measures.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
5	<p>Identification of Infrastructure at Risk from Flooding</p> <p>Identify and assess infrastructure/buildings at risk from flooding/extreme rainfall to inform site protection plans and the development of low-cost minor works flood relief schemes.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by identifying and assessing infrastructure and buildings at risk from flooding and extreme rainfall and the implementation of appropriate mitigation measures where risks are identified.</p>

		<p>Potential for Significant Effects on Natura 2000 sites</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
6	<p>Watercourse Maintenance Works</p> <p>Identify, assess and develop multi-annual maintenance programmes, in conjunction with the OPW, for watercourses and coastlines where such works would substantially reduce flood risk.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo through the protection of flood plains, wetlands and coastal areas in County Mayo.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
7	<p>Protection of Floodplains and Wetlands</p> <p>Identify, protect and enhance the county's floodplains, wetlands and coastal areas subject to flooding, as green infrastructure, to provide space for storage and conveyance of floodwater.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo through the protection of flood plains, wetlands and coastal areas in County Mayo.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>

		Potential for Significant Effects on Natura 2000 sites
8	<p>Surcharging Combined Sewers Work with Irish Water to identify combined sewers that are at risk of surcharging during extreme rainfall events and develop suitable solutions.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by reducing the risk of sewers subcharging.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action</p>
9	<p>Green Infrastructure to Reduce Urban Flooding Identify and develop locations for green infrastructure to reduce runoff and stormwater flows that may otherwise exceed system capacity; bio- retention areas (rain gardens), green roofs, swales (depressions to capture water) and the use of vegetation or pervious materials instead of impervious surfaces. Identify and develop mechanisms to promote de-paving of front gardens, school grounds, etc and introduce permeable surfaces. Encourage householders to green and enhance their gardens e.g. encourage development of rain gardens in domestic properties to reduce flood risk. Demonstrate de-paving/porous paths/rain gardens/ low maintenance gardens to encourage re-greening. To require, where feasible and practical, the provision of green roof technology for all new public buildings to assist in flood alleviation, insulation and improved biodiversity, and to actively promote these measures where appropriate in new commercial and industrial buildings.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by enhancing the use of green infrastructure to reduce urban flooding in County Mayo.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
10	<p>Surface Water Management Plans Identify and map areas prone to surface water and groundwater flood risk. Develop Surface Water Management Plans to manage surface water flood risks in the areas identified. Prioritise and implement Surface Water Management Plans/Projects on a risk bases.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo through the management of surface water flood risks in areas prone to the same.</p> <p>Where Adaptation Actions give rise to other plans or programmes which could be considered to constitute the definition of the same under the Habitats Regulations, the plan or programme should be subject to AA prior to adoption, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>

		Potential for Significant Effects on Natura 2000 sites
11	<p>Areas Isolated by Flooding Identify areas susceptible to isolation as a consequence of flooding and establish measures to reduce the risk and preparedness to respond.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo through the management of surface water flood risks in areas prone to the same.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
12	<p>Building Community Resilience to Flooding Engage with local communities to build awareness of flood risk, to allow individuals and business build resilience and to develop actions that allow communities prepare for flood events to reduce the overall impact.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by increasing awareness of, and encouraging preparedness for, flood events within communities to reduce the overall impact of the same.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
13	<p>Flood Risk Training Identify and address knowledge gaps in Flood Risk Management and Flood Risk Assessments.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by addressing knowledge in flood risk management and assessments.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
14	<p>Research Coastal Erosion & Sea Level Rise Identify research, case studies and improve awareness of current and future coastal change along the Mayo coast and in the wider context of the Atlantic Seaboard.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by increasing knowledge and awareness of coastal change in Mayo and along the Atlantic Seaboard.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>

		Potential for Significant Effects on Natura 2000 sites
15	<p>Protection of Public Water Supplies</p> <p>Work with and support Irish Water in identifying public drinking water sources vulnerable to climate change and to develop source protection, or alternative sources, in order to maintain water quantity and quality levels.</p> <p>Work with Irish Water to identify effects of power outages of varying durations on specific Water and Wastewater Scheme operations and identify critical and vulnerable receptors.</p> <p>Liaise, support and work with IW in the development, conservation and upgrade of the water supply systems so as to ensure that County Mayo has an adequate supply of water to address climate change demands.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by protecting the public water supply from the effects of climate change.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
16	<p>Protection of Private GWS Water Supplies</p> <p>Work with and support private Group Water Schemes to identify drinking water sources vulnerable to climate change and to develop source protection, or alternative sources, in order to maintain water quantity and quality levels.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by protecting private GWS water supply from the effects of climate change.</p> <p>Any works proposed under the Adaptation Actions which could be considered to constitute a ‘project’ within the definition of the Habitats Regulations should be subject AA at project level, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
17	<p>Internal Water Conservation</p> <p>Develop and implement water conservation, energy management, and waste management programmes in all Mayo County Council office buildings.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by developing and implementing water conservation, energy management, and waste management programmes in Council office buildings.</p> <p>Where Adaptation Actions give rise to other plans or programmes which could be considered to constitute the definition of the same under the Habitats Regulations, the plan or programme should be subject to AA prior to adoption, as required.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>

		Potential for Significant Effects on Natura 2000 sites
18	Water Quality Monitoring Monitor surface water conditions during/after climate events to build an understanding of conditions and the factors that alter water quality.	This Action will successfully contribute to climate adaptation in County Mayo by improving knowledge of the effects of extreme weather events on water quality. No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.
19	Septic Tanks & Ground Water Vulnerability Identify areas at risk of groundwater pollution from septic tanks, taking into account projected climate change, the vulnerability of the aquifer, high groundwater table and a high concentration of septic tanks.	This Action will successfully contribute to climate adaptation in County Mayo by identifying areas at risk from groundwater pollution from climate change. No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.
20	Stakeholder Engagement Liaise and work with other bodies, agencies responsible for the management of water courses.	This Action will successfully contribute to climate adaptation in County Mayo by offering the potential for a more coordinated, consistent and effective approach to water management in the County. No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.
No	Goal 4 Actions: Increase Resilience of Community Services to Climate Change by Planning & Implementing Appropriate Adaptation Action, and Promote Opportunities	
1	Business Continuity Plan Develop Business Continuity Plan to identify and address the effects associated with extreme weather events on all functions/services of Mayo County Council and put in place measures to maintain an acceptable level of service.	This Action will successfully contribute to climate adaptation in County Mayo by implementing measures to maintain an acceptable level of functions and services in Mayo in the event of extreme weather events. No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.

		Potential for Significant Effects on Natura 2000 sites
2	<p>Service Delivery Programme Integrate Climate Adaptation into the Service Delivery Programme and include in Team Development Plans and Personal Development Plans to enable actions to be directly pursued under each operational area.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by implementing measures to maintain an acceptable level of functions and services in Mayo in the event of extreme weather events.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
3	<p>Climate Change Awareness Internal Awareness Training Develop a Climate Change and Adaptation Training Program to educate staff and provide a basic understanding of the projected range of changes in temperature and precipitation, the increase in the frequency and magnitude of extreme weather events for their region and how these changes may affect the LA's assets and operations. Community Awareness Campaign Through public participation network and working with relevant agencies, develop a Climate Change awareness campaign to inform the public of the projected range of changes and their effects, and identify mitigation and adaptation priorities through an inclusive stakeholder consultation process Use educational projects in schools or through community events as opportunities to disseminate climate change information to the public. Develop Training Programmes Work with training providers to develop training/awareness programmes for people in communities around climate adaptation.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by increasing awareness of climate change and its associated impacts among the community.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
4	<p>Community Resilience Plans Identify communities vulnerable to climate change and extreme events. Developing and implement a Community Resilience Plan for a structured community coordination to drive climate preparedness and resilience at local level and respond to the effects of climate change locally.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by promoting and enabling climate preparedness and resilience at local level and respond to the impacts of climate change locally.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>

		Potential for Significant Effects on Natura 2000 sites
5	<p>Knowledge Sharing Promote adaptation through providing advice and support to local businesses and organisations on adaptation, and undertaking research into tackling the challenges of the effects of climate change Collate and showcase successes and best practice on adaptation and mitigation and provide support to those looking to take independent adaptation action.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by increasing awareness of climate change and its associated impacts among the community.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
6	<p>Community Toolkits & Climate Leaders Identify, promote and support individuals and communities to be champions for adaptation and sustainable living Develop a package of resources to support community groups to start conversations about becoming more climate resilient, potentially consisting of short presentations, workshop guide and information sheets. Workshops can be run with different community groups and aim to raise awareness of the need to adapt to local effects and reduce emissions as a first stage in preparing a community resilience action plan.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by increasing awareness of climate change and its associated impacts among the community.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
7	<p>Festivals & Events Integrate climate change considerations in the planning and development stage for festivals/events and consider contingency planning for extreme weather events.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by integrating climate change considerations in the planning and development stage for festivals/events and consider contingency planning for extreme weather events.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
8	<p>Project Funding For projects subject to funding and investment of public money, include climate change considerations as criteria for assessment ultimately ensuring that community projects are designed and developed to be climate resilient and/or are proactive in promoting and working positively towards climate action. Identify funding streams for local climate action projects and support communities in developing and implementing climate adaptation projects at local level.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by ensuring climate change considerations are integrated into the design and development of publicly funded projects.</p> <p>New development will be subject to AA, as required.</p>

		Potential for Significant Effects on Natura 2000 sites
		No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action
9	<p>Emergency Response Plans Review and update the Emergency Response Plans to take account of the changing climate, frequency and severity of climatic events. Ensure that Flood Emergency Response Plans are reviewed annually to reflect the increasing flood risk, flood alert systems, communications strategy and the resource capacity required to provide an effective response.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by ensuring that emergency response plans for County Mayo adequately address potential for extreme weather events and potential impacts of the same.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
10	<p>Health & Safety Plans Review and update the Health & Safety Statements and Risk Assessments to take account of the changing climate, frequency and severity of climatic events.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by ensuring that Health & Safety Statements and Risk Assessments for County Mayo adequately address potential for extreme weather events and potential impacts of the same.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
11	<p>Capturing Costs of Climate Events Develop procedures and templates to ensure that the financial aspects of extreme weather are collated, recorded and reported to operational and senior management team.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by enabling the Council to provide adequate funds for the management of extreme weather events in the County.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>
12	<p>Promoting Opportunities & Supporting Business Identify, source and leverage funding streams for the active implementation of adaptation actions that will contribute both environmentally and economically to Mayo. Through the work of the LEO Mayo, support, encourage and nurture new ideas seeking to capture opportunities associated with environmental and technological advances that support Climate Adaptation and Climate Mitigation.</p>	<p>This Action will successfully contribute to climate adaptation in County Mayo by supporting external climate change adaptation and mitigation initiatives and increasing community awareness of the same.</p> <p>No potential for significant effects on Natura 2000 sites are predicted to result from the implementation of this Action.</p>

		Potential for Significant Effects on Natura 2000 sites
	<p>Develop a Climate Change Awareness Programme for business and start-ups to inform them of climate action measures that can be integrated into business activities, and identify business supports and funding options to businesses seeking to become more resilient to climate change events.</p> <p>Encourage and promote projects that will contribute positively and grow the Circular and Bio-economy to promote sustainable rural and urban economic development as part of the overall aim of transiting to a low carbon economy.</p>	

Draft

Appendix C

Findings of No Significant Effects

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C1 Findings of No Significant Effects

Name of Project/ Plan:

Climate Ready Mayo- the Draft Climate Change Adaptation Strategy for County Mayo, for the period 2019-2024 (the Draft Adaptation Strategy)

Names of Natura 2000 Sites of relevance to the proposed development:

Refer to Table A.1 and Table A.2 of Appendix A.

Is the project or plan directly connected with or necessary to the management of the site?

No.

Are there other projects or plans that together with the project or plan being assessed could affect the site?

No.

THE ASSESSMENT OF SIGNIFICANCE OF EFFECTS

Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site.

It has been determined by Arup that it is possible to rule out likely significant effects on any Natura 2000 sites.

Explain why these effects are not considered significant.

- There is no potential for the Draft Adaptation Strategy, in particular the proposed Adaptation Actions, to significantly effect Natura 2000 sites.
- The Draft Adaptation Strategy is not directly connected with, or necessary to the conservation management of any Natura 2000 sites.
- The Draft Adaptation Strategy, alone or in combination with other plans or programmes, is not likely to have significant effects on Natura 2000 sites in view of their conservation objectives.

DATA COLLECTED TO CARRY OUT THE ASSESSMENT

Who carried out the assessment?

The assessment was supervised, checked and completed by Fiona Patterson, an Arup ecologist.

Sources of Data:

- *Managing Natura 2000 Sites: The Provision of Article 6 of the Habitats Directive 92/43/EEC* (EC Environment Directorate-General, 2018);

- *Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodical Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission Environment Directorate-General, 2001);
- *Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC.* (European Commission, 2007);
- *Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities* (Department of Environment, Heritage and Local Government, 2010 revision);
- *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPW 1/10 and PSSP 2/10;*
- *Guidelines for Good Practice Appropriate Assessment of Plans under Article 6(3) Habitats Directive* (International Workshop on Assessment of Plans under the Habitats Directive, 2011); and
- *Guidelines for Ecological Impact Assessment in the UK and Ireland, Terrestrial, Freshwater, Coastal and Marine* (Institute of Ecology and Environmental Assessment, September 2018).
- Google aerial photography (viewed on 25th April 2019);
- National Parks and Wildlife Service online data on European Sites and (www.npws.ie) (viewed on 25th April 2019);
- National Parks and Wildlife Service online data on protected flora and fauna (viewed on 25th April 2019);
- Information on environmental quality data available from www.epa.ie (EPA Online Environmental Map Viewer) (viewed on 25th April 2019);
- Information on environmental water quality data available from (EPA, www.catchments.ie); and
- Natura Impact Report for the Mayo County Development Plan 2014-2020;
- Mayo Biodiversity Action Plan 2010-2015.

OVERALL CONCLUSIONS

Based on the information provided above, and by applying the precautionary principle, it has been determined by Arup that It can be excluded, on the basis of objective information and beyond a reasonable scientific doubt that the development will have a significant effect on any Natura 2000 sites. and therefore, it is the view of Arup that it is not necessary to undertake any further stage of the Appropriate Assessment process for the Draft Adaptation Strategy.