

NATURA IMPACT REPORT

IN SUPPORT OF THE
APPROPRIATE ASSESSMENT
OF THE
**MONAGHAN COUNTY DEVELOPMENT PLAN
2019-2025**

IN ACCORDANCE WITH THE REQUIREMENTS OF
ARTICLE 6(3) OF THE EU HABITATS DIRECTIVE

for: Monaghan County Council

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1 Introduction

1.1 Background

CAAS has been appointed by Monaghan County Council to prepare this Natura Impact Report (NIR) in support of the Appropriate Assessment (AA) of the Monaghan County Development Plan 2019-2025 (CDP) in accordance with the requirements of Article 6(3) of the EU Habitats Directive¹.

An Appropriate Assessment is a requirement of Article 6 of the Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) (hereafter referred to as the "Habitats Directive"). The overall aim of the Habitats Directive is to maintain or restore the "Favourable Conservation Status" of habitats and species of European Community Interest. These habitats and species are listed in the Habitats and Birds Directives (Council Directive 2009/147/EC on the conservation of wild birds) with Special Areas of Conservation and Special Protection Areas designated to afford protection to the most vulnerable of them. These two designations are collectively known as European Sites.

European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the European Sites at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations (in particular Part XAB of the Planning and Development (Amendment) Act 2010 and the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. 477) (often referred to as the Habitats Regulations) to ensure the ecological integrity of these sites. Appropriate Assessment (AA) is an assessment of whether a plan or project, alone and in combination with other plans or projects, could have significant effects on a European Site in view of the site's conservation objectives.

A Strategic Environmental Assessment (SEA) has been undertaken to assess the impacts of the CDP on a number of environmental considerations including biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage, landscape and the interrelationship between these considerations, whenever applicable.

1.2 Legislative Context

The Appropriate Assessment process (AA) is an assessment of the potential for adverse or negative effects of a plan or project, in combination with other plans or projects, on the conservation objectives of a European Site. These sites consist of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) and provide for the protection and long-term survival of Europe's most valuable and threatened species and habitats.

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as "The Habitats Directive", provides legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. In Ireland, these are candidate Special Areas of Conservation (cSACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/ECC), hereafter referred to as European Sites.

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect European Sites. Article 6(3) establishes the requirement for AA:

"Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually

¹ Directive 92/43/EEC

or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In 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.

If, in spite of a negative assessment of the implications for the [Natura 2000] 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 a social or economic nature, Member States 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."

These requirements are implemented in the Republic of Ireland by the European Communities (Birds and Natural Habitats) Regulations 2011. These regulations consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in judgements of the Court of Justice of the European Union (CJEU).

If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project may nevertheless be carried out for "Imperative Reasons Of Overriding Public Interest", including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of European suite 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.

Appropriate Assessment should be based on best scientific knowledge and Planning Authorities should ensure that scientific data (ecological and hydrological expertise) is utilised. This report details a Screening Statement to inform the AA process which is finalised by the statutory authority.

1.3 Guidance

This Screening Statement has been prepared in accordance with the following guidance:

- *Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, 2010.*
- *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, European Commission Environment DG, 2002.*
- *Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC: European Commission, 2000.*
- *Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg (EC 2001);*

- *Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission. Office for Official Publications of the European Communities, Luxembourg (EC 2007).*
- *Flora (Protection) Order, 1999 (As amended 2015)*

In addition, a detailed online review of published scientific literature and 'grey' literature was conducted. This included a detailed review of the National Parks and Wildlife Website including mapping and available reports for relevant sites and in particular sensitive qualifying interests/special conservation interests described and their conservation objectives. The EPA Envision Map-viewer (www.epa.ie) and available reports were also reviewed.

Definitions of conservation status, integrity and significance used in this assessment are defined in accordance with 'Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC' (EC, 2000).

- The conservation status of a natural habitat is defined as the sum of the influences acting on a natural habitat and its typical species that may affect its long-term natural distribution, structure and functions as well as the long-term survival of its typical species;
- The conservation status of a species is defined as the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its population;
- The integrity of a European Site is defined as the coherence of the site's ecological structure and function, across its whole area, or the habitats, complex of habitats and/or populations of species for which the site is or will be classified;
- Significant effect should be determined in relation to the specific features and environmental conditions of the protected site concerned by the plan or project, taking particular account of the site's conservation objectives.

1.4 Approach

There are four main stages in the AA process; the requirements for each depending on likely impacts to European Sites (SAC/ SPA).

Stage One: Screening

The process which identifies the likely impacts upon a European Site of a project or plan, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant.

Stage Two: Appropriate Assessment

The consideration of the impact on the integrity of the European Site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts. If adequate mitigation is proposed to ensure no significant adverse impacts on European Sites, then the process may end at this stage. However, if the likelihood of significant impacts remains, then the process must proceed to Stage 3.

Stage Three: Assessment of Alternative Solutions

The process which examines alternative ways of achieving the objectives of the project or plan that avoids adverse impacts on the integrity of the European Site.

Stage Four: Assessment where no alternative solutions exist and where adverse impacts 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.

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures. First, the plan should aim to avoid any impacts on European Sites by identifying possible impacts early in the plan-making process and writing the plan in order to avoid such impacts. Second, mitigation measures should be applied, if necessary, during the AA process to the point where no adverse impacts on the site(s) remain. If the plan is still likely to result in impacts on European Sites, and no further practicable mitigation is possible, then it must be rejected. If no alternative solutions are identified and the plan is required for imperative reasons of overriding public interest (IROPI test) under Article 6(4) of the Habitats Directive, then compensation measures are required for any remaining adverse effect.

1.4.1 Source-Pathway-Receptor Model

Ecological impact assessment of potential effects on European Sites is conducted following a standard source-pathway-receptor model, where, in order for an effect to be established all three elements of this mechanism must be in place. The absence or removal of one of the elements of the mechanism is sufficient to conclude that a potential effect is not of any relevance or significance.

- Source(s) – e.g. pollutant run-off from proposed works.
- Pathway(s) – e.g. groundwater connecting to nearby qualifying wetland habitats.
- Receptor(s) – qualifying aquatic habitats and species of European Sites.

In the interest of this report, receptors are the ecological features which are known to be utilised by the qualifying interests or special conservation interests of a European Site. A source is any identifiable element of the Plan provision which is known to have interactions with ecological processes. The pathways are any connections or links between the source and the receptor. This report determines if direct, indirect and cumulative adverse effects (however minor) will arise from the proposed development.

1.4.2 Zone of Influence

Following the source-pathway-receptor process a Zone of Influence (ZOI) will be determined based on the characteristics of the development (detailed in section 3.2) and the foreseen distribution of likely effects through any pathways identified. Once the ZOI is established, all European Sites within it will be assessed with specific reference to the sensitive receptors of each site and pathways for effect that relate to the ecological integrity of the site.

1.5 Relationship between the Appropriate Assessment process and the Plan

Appropriate Assessment (AA) needs to be fully integrated with the various stages of the development plan process in order to ensure that the ecological implications of the plan do not affect any areas designated as European Sites. As the AA process, has been managed by part of the Forward Planning team, interaction has occurred from the early stages of writing of the draft plan to impress the importance of protection of European Sites and that the plan should be formulated to avoid adverse impacts on these sites. In addition, the Strategic Environmental Assessment process has been taken into account in the appropriate assessment process. The screening of objectives and the assessment of objectives in the context of mitigation measures and potential effects of the designated sites, has been an iterative process throughout each stage of the plan-making process.

2 Description and background of the Monaghan CDP 2019-2025

2.1 Monaghan County Development Plan

The Monaghan County Development Plan provides an overall strategy for the proper planning and sustainable development of County Monaghan over the timescale of the Plan. Spatial planning through the development plan policies endeavors to achieve balance between the common good and the interests of those individuals. It is acknowledged that many of the major issues affecting the County's development are contingent on national policy and government funding. However, the reform of local government in 2014 it is also noted that a new document has been produced which focuses on what can be achieved locally by working together to bring about a higher quality of life and more sustainable economic development in Monaghan. In January 2016, Monaghan County Council working alongside Monaghan Local Community Development Committee published the first Local Economic and Community Plan (LECP) for County Monaghan. This was produced following extensive research and consultation in order to identify the key challenges, opportunities and priorities from both a community and economic perspective. This will set a vision, goals and objectives as well as detailed actions to mobilize all stakeholders with an interest in a successful future for Monaghan. The LECP and the County Development Plan are complementary policy documents, which share the same vision to provide an overall strategy for the social, economic, cultural and physical development of the County.

Therefore, this Plan builds on the review of the Monaghan County Development Plan 2013-2019 but also takes account of more recent key development trends, national, regional and local policy documents as well as EU legislative requirements.

2.1.1 Strategic Objectives

The realization of this aim will be pursued by seeking to secure the following overall strategic objectives of the Plan;

1. To develop to its full potential each part of County Monaghan in economic, social and environmental terms.
2. To sustain traditional settlement patterns while developing the role and function of each town, village and settlement throughout the County in accordance with the settlement strategy.
3. To realise the potential of County Monaghan in the context of its strategic location along the border, adjacent to the eastern economic corridor and to improve linkages and communications between Monaghan and its neighbouring counties.
4. To support balanced economic development throughout the county by delivering improved infrastructure and services.
5. To protect and nurture the County's rich natural resources, heritage and amenities along with the environmental quality of the natural and built environment in both the urban and rural areas.
6. To plan for greater social inclusion and to improve the quality of life of all who live and work in County Monaghan.
7. To provide a framework for the management and regulation of development and use of land that will guide day to day planning decisions.

2.1.2 Settlement Plans

The Monaghan County Development Plan 2019-2025 incorporates settlement plans for the five towns of County Monaghan. These Settlement Plans include for those towns listed in Tier 1, 2 and 3 of the Core Strategy.

2.1.2.1 Vision

The overall purpose of the settlement plans is to set out a shared vision of how the sustainable and coordinated growth and development of the towns in the county can be shaped in a planned manner which will also act as a catalyst for the economic, physical, cultural and environmental development of the towns.

The concept of sustainable development is a theme which runs through this Plan and it requires that development occurs in a manner which shall provide for the greater community need in the present without compromising the ability of future generations to meet their needs and enjoy the same quality of life and environment. This approach will also protect the natural and built environment by ensuring that new development is of a high standard taking into account surrounding properties and uses.

Specific Strategic Objectives for Settlement Plan Towns:

Settlement	Specific Strategic Objective
SH01 Monaghan Town	To facilitate the development of Monaghan to maintain its position as the principle town in the County at the top of the settlement hierarchy and to ensure that its expansion takes place in an orderly and sustainable fashion that will not detract from the vitality and viability of its town center.
SH02 Carrickmacross & Castleblayney	To promote the Strategic Towns as prosperous and thriving local development and service towns where the principles of environmental, economic and social sustainability including protection of the town's heritage and natural and built environment are enshrined.
SH03 Clones & Ballybay	To promote and develop Tier 3 Service Towns in order to create self-sufficient sustainable and vibrant communities which will act as local development and service centers for the border catchment and the mid Monaghan hinterland.

2.2 Relationship with other Relevant Plans and Programmes

The Monaghan County Development Plan sites within a hierarchy of planning strategies with which the plan itself must comply. The National Spatial Strategy for Ireland (NSS) coordinates a consolidated planning process, from this regional policies and objectives are identified. The Monaghan CDP provides further detail into the development objectives for the county.

2.2.1 The National Spatial Strategy

This NSS is a twenty-year planning framework designed to achieve a better balance of social, economic, physical development and population growth between regions. Its focus is on people, on places and on building communities. Through closer matching of where people live with where they work, different parts of Ireland will for the future be able to sustain

- a better quality of life for people
- a strong, competitive economic position and • an environment of the highest quality.

Monogram falls within the Border Region of the plan. The factors critical to the border region's full participation in balanced regional development include the strengthened roles and contribution of Letterkenny/Derry, Sligo and Dundalk, as new gateways to drive development through enhanced critical mass, accessibility and capacity for development.

Other towns, villages and rural areas will need to develop roles complementary to those of the gateways to ensure that a wider area will benefit from the critical mass in the region provided by the gateways. These other towns, including small towns along the west coast, inland county and larger towns and rural areas in the region are varied in nature and in the development issues they face. Some rural areas

are diversifying into tourism and small and medium enterprise/natural resource development, while others have considerable potential for diversification and growth.

2.2.2 Regional Planning Guidelines

'By 2022, the Border Region will be a competitive area recognised as, and prospering from, its unique interface between two economies, where economic success will benefit all, through the implementation of the balanced development model, which will provide an outstanding natural environment, innovative people, which in themselves, will be our most valuable asset'

2.2.3 Environmental Protection Objectives

The Plan is subject to a number of high level environmental protection policies and objectives with which it must comply. Examples of Environmental Protection Objectives include the aims of the EU Habitats Directive which is to contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of Member States and the purpose of the Water Framework Directive which is to establish a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater which, among other things, prevents deterioration in the status of all water bodies and protects, enhances and restores all waters with the aim of achieving good status.

3 Screening for Appropriate Assessment

3.1 Introduction to Screening

3.1.1 Background to Screening

This stage of the process identifies any likely significant effects to European Sites from a project or plan, either alone or in combination with other projects or plans. The screening phase was progressed in the following stages. A series of questions are asked during the Screening Stage of the AA process in order to determine:

- Whether a plan or project can be excluded from AA requirements because it is directly connected with or necessary to the management of a European Site.
- Whether the project will have a potentially significant effect on a European Site, either alone or in combination with other projects or plans, in view of the site's conservation objectives or if residual uncertainty exists regarding potential impacts.

An important element of the AA process is the identification of the 'conservation objectives', 'Qualifying Interests' and/ or 'Special Conservation Interests' of European Sites requiring assessment. Qualifying Interests (QI's) are the habitat features and species listed in Annex I & II of the EU Habitats Directive (92/43/EEC) for which each European Site has been designated and afforded protection. The 'Special Conservation Interests' (SCI's) are wetland habitats and bird species listed within Annex I & II of the Birds Directive. It is also vital that the threats to the ecological / environmental conditions that are required to support QI's and SCI's are considered as part of the assessment.

Site specific conservation objectives have been designed to define favourable conservation status for a particular habitat or species at that site. According to the European Commission interpretation document 'Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC', paragraph 4.6(3) states:

"The integrity of a site involves its ecological functions. The decision as to whether it is adversely affected should focus on and be limited to the site's conservation objectives."

Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing,
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats,
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The screening stage of the Appropriate Assessment takes account of the elements detailed above with regard to the details and characteristics of the project or plan to determine if potential for effects to the integrity of the European Site are likely. The characteristics of the draft plan were constructed through an iterative process, as a result the European Sites which are screened below may differ from those of high level plans, due to refinements in the methods/project details available.

3.1.2 Desktop Studies

The ecological desktop study completed for this Appropriate Assessment of the Plan comprised the following elements:

- Identification of European Sites within 15km with identification of potential pathways links for specific sites (if relevant) greater than 15km from the proposed development study area.;
- Review of the NPWS site synopsis and conservation objectives for European Sites with identification of potential pathways from the proposed development; and
- A series of ecological desk studies were undertaken between October 2017 and January 2018. This included but is not limited to the collation of information on protected species including Bats, Otters, Bird species (including Annex I species), Annex II habitat types, protected and Red Data Book Flora species, invertebrates and amphibians. The results of these studies are included as part of the Appropriate Assessment where they were deemed relevant to the European Sites and their QI's/SCI's.

3.2 Identification of Relevant European Sites

This section of the screening process describes the European Sites which exist within the Zone of Influence of the site. The DoEHLG (2009) Guidance on Appropriate Assessment recommend a 15km buffer zone be considered around the site. It is foreseen that in the absence of significant hydrological links the characteristics of the Plan (detailed in section 2) will not impose effects beyond this Zone of Influence.

European Sites that occur within 15km of the Plan Area or that were identified to have hydrological linkages to the Plan are listed in Table 3.1 and illustrated in Figure 3.1 below. Details on the specific qualifying features and special conservation interests of each European Site are also identified in Table 3.1.

In order to determine the potential for effects from the CDP, information on the qualifying features, known vulnerabilities and threats to site integrity pertaining to any potentially affected European Sites was reviewed. Background information on threats to individual sites and vulnerability of habitats and species that was used during this assessment included the following:

- *Ireland's Article 17 Report to the European Commission "Status of EU Protected Habitats and Species in Ireland" (NPWS, 2013).*
- *Site Synopses.*
- *NATURA 2000 Standard Data Forms.*

The Site-Specific Conservation Objectives (SSCO's) of each site were consulted to inform the assessment. Since the conservation objectives for the European Sites focus on maintaining the favorable conservation condition of the QI's/SCI's of each site, the screening process concentrated on assessing the potential effects of the CDP against the QI's/SCI's of each site.

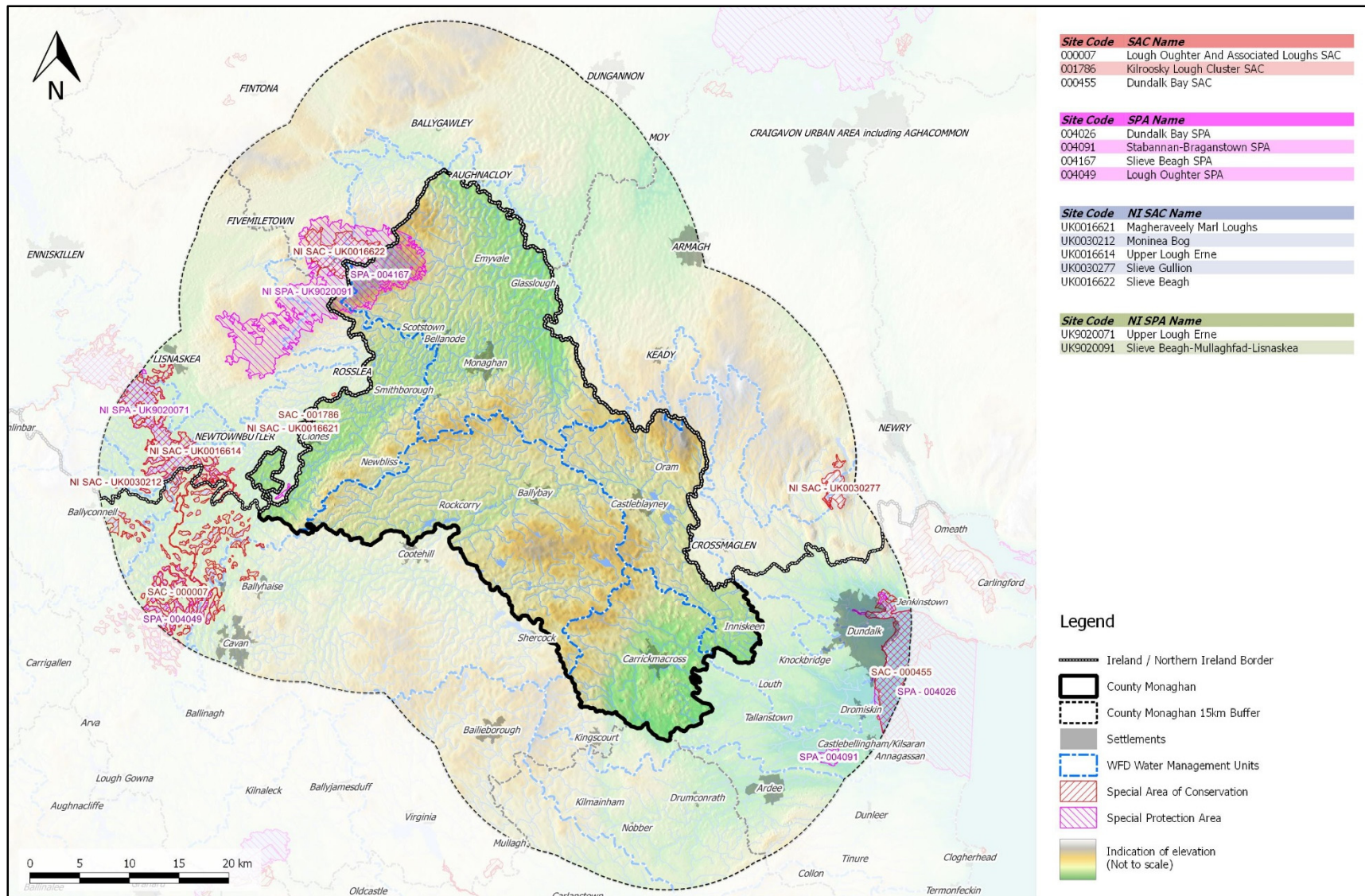


Figure 3.1 European sites within 15 km of the Monaghan County Development Plan boundary

Table 3.1 European Sites within the Zone of Influence of the Monaghan County Development Plan boundary (Listed according to distance) and their qualifying features; a list of threats and sensitivities for each site can be found in Appendix I.

Site Code	Site Name	Distance km	Qualifying Features (Qualifying Interests of Special Conservation Interests)
001786	Kilroosky Lough Cluster SAC ²	Within	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. [3140] Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davalliana</i> [7210] Alkaline fens [7230] <i>Austropotamobius pallipes</i> (White-clawed Crayfish) [1092]
004167	Slieve Beagh SPA	Within	Hen Harrier (<i>Circus cyaneus</i>) [A082]
UK0016621	Magheraveely Marl Loughs SAC ³	0	White-clawed (or Atlantic stream) crayfish <i>Austropotamobius pallipes</i> [1092] Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davalliana</i> * [7210] Alkaline fens [7230] Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara spp</i> [3140]
UK0016622	Slieve Beagh SAC ⁴	0	Natural dystrophic lakes and ponds [3160] Blanket bogs (* if active bog) [7130] European dry heaths [4030]
UK9020071	Upper Lough Erne SPA ⁵	0	Greenland White-fronted Goose (<i>Answer albifrons flavirons</i>) [A395]
UK9020091	Slieve Beagh-Mullaghfad-Lisnaskea SPA ⁶	0	Hen Harrier (<i>Circus cyaneus</i>) [A082]
000007	Lough Oughter and Associated Loughs SAC ⁷	0.88	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150] Bog woodland [91D0] <i>Lutra lutra</i> (Otter) [1355]
UK0016614	Upper Lough Erne SAC ⁸	1.29	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] 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] Otter <i>Lutra lutra</i> [1355]
004049	Lough Oughter SPA ⁹	8.55	Great Crested Grebe (<i>Podiceps cristatus</i>) [A005] Whooper Swan (<i>Cygnus cygnus</i>) [A038] Wigeon (<i>Anas penelope</i>) [A050]

² https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO001786.pdf

³ <https://www.daera-ni.gov.uk/sites/default/files/publications/doe/land-information-magheraveely-marl-loughs-conservation-objectives-2015.pdf>

⁴ https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004167.pdf

⁵ <https://www.daera-ni.gov.uk/sites/default/files/publications/doe/upper-lough-erne-spa-conservation-objectives-2015.pdf>

⁶ <https://www.daera-ni.gov.uk/sites/default/files/publications/doe/slieve-beagh-mullaghfad-lisnaskea-spa-conservation-objectives-2015.pdf>

⁷ https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000007.pdf

⁸ <https://www.daera-ni.gov.uk/sites/default/files/publications/doe/land-information-upper-lough-erne-conservation-objectives-2015.pdf>

⁹ https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004049.pdf

			Wetland and Waterbirds [A999]
004026	Dundalk Bay SPA ¹⁰	9.10	Great Crested Grebe (<i>Podiceps cristatus</i>) [A005] Greylag Goose (<i>Anser anser</i>) [A043] Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Teal (<i>Anas crecca</i>) [A052] Mallard (<i>Anas platyrhynchos</i>) [A053] Pintail (<i>Anas acuta</i>) [A054] Common Scoter (<i>Melanitta nigra</i>) [A065] Red-breasted Merganser (<i>Mergus serrator</i>) [A069] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Ringed Plover (<i>Charadrius hiaticula</i>) [A137] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Lapwing (<i>Vanellus vanellus</i>) [A142] Knot (<i>Calidris canutus</i>) [A143] Dunlin (<i>Calidris alpina</i>) [A149] Black-tailed Godwit (<i>Limosa limosa</i>) [A156] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Curlew (<i>Numenius arquata</i>) [A160] Redshank (<i>Tringa totanus</i>) [A162] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Common Gull (<i>Larus canus</i>) [A182] Herring Gull (<i>Larus argentatus</i>) [A184] Wetland and Waterbirds [A999]
000455	Dundalk Bay SAC ¹¹	10.37	Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Perennial vegetation of stony banks [1220] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]
004091	Stabannan-Braganstown SPA ¹²	11.23	Greylag Goose (<i>Anser anser</i>) [A043]
UK0030277	Slieve Gullion SAC ¹³	11.61	European dry heaths [4030]
UK0030212	Moninea Bog SAC ¹⁴	12.76	Active raised bogs * [7110]

* Priority Habitat

¹⁰ https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004026.pdf

¹¹ https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000455.pdf

¹² https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004091.pdf

¹³ <https://www.daera-ni.gov.uk/sites/default/files/publications/doe/Conservation%20Objectives%20%282017%209.%20%20Slieve%20Gullion%20SAC.%20%20Version%202.1%20-20amendment%2013.10.2017.%20PDF..PDF>

¹⁴ <https://www.daera-ni.gov.uk/sites/default/files/publications/doe/land-information-moninea-bog-conservation-objectives-2015.pdf>

3.3 Assessment Criteria

3.3.1 Is the Plan Necessary to the Management of European 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 CDP is not the nature conservation management of the sites, but to provide for the sustainable development in County Monaghan. Therefore, the Plan are not considered by the Habitats Directive to be directly connected with or necessary to the management of European designated sites.

3.3.2 Elements of the Plan with Potential to Give Rise to Effects

The Monaghan County Development Plan contains policies and objectives which have the potential to give rise to effects on European Sites. The plan provides for all manner of development within the County such as housing, economic development, community, transport and infrastructure, etc. These developments will all have both construction and operation phase effects associated with them. Therefore, there is potential for effects to water quality in relation to sedimentation, dust, site-runoff etc. Similarly, increased development could facilitate a growth in population which would lead to increased anthropogenic activities within the county. These activities could give rise to disturbance effects to sensitive species such as birds. Site specific information is required to identify the particular sensitivities present in the European Sites within the zone of influence, this information can be used to identify the magnitude of the potential effects.

3.3.3 Identification of Potential Likely Significant Effects

This section documents the final stage of the screening process. It has used the information collected on the sensitivity of each European Site and describes any likely significant effects resulting from the Plan. This assumes the absence of any controls, conditions, or mitigation measures. In determining the potential for significant effects, a number of factors have been taken into account. Firstly, the sensitivity and reported threats to the European Site. Secondly, the individual elements of the Plan and the potential effect they may cause to the site were considered. The elements of the Plan with potential to cause effect to European Sites are presented in Table 3.2 below.

Sites are screened out based on one or a combination of the following criteria:

- where it can be shown that there are significant pathways for effects such as hydrological links between activities of the CDP, and the site to be screened;
- where the site is located at such a distance from the CDP that effects are not foreseen;
- where it is that known threats or vulnerabilities at a site cannot be linked to potential impacts that may arise from the CDP.

Table 3.2 Screening of European Sites within the Zone of Influence (15 km) of the Monaghan County Development Plan boundary

Site Code	European Site	Distance (km)	Potential effects	Pathway for Significant Effects	Potential for In-Combination Effects
001786	Kilroosky Lough Cluster SAC	Within	No site-specific threats were identified by the NPWS but the qualifying interests and conservation objectives are heavily reliant on water quality. There are sourced for potential effects introduced by the plan and hydrological links present.	Yes	Yes
004167	Slieve Beagh SPA	Within	No site-specific threats are identified by the NPWS; however, the hen harrier is sensitive to disturbance through noise pollution which is a potential source for effect with the plan	Yes	Yes
UK0016 621	Magheraveely Marl Loughs SAC	0	Pollution to surface, ground water and air are known threats to this site as identified by the DAERA. The site is on the county boarder, and is hydrologically linked to the Plan area. Therefore, there are potential sources for effects.	Yes	Yes
UK0016 622	Slieve Beagh SAC	0	Invasive species and air pollution are identified as threats to the site by the DAERA. The spread of invasive species is a potential effect that arises from construction phase of developments. Therefore, there are potential sources for effects.	Yes	Yes
UK9020 071	Upper Lough Erne SPA	0	No site-specific threats are identified that relate to the potential effects arising from the plan, however the Greenland white fronted goose is sensitive to disturbance through noise pollution which is a potential source for effect with the plan.	Yes	Yes
UK9020 091	Slieve Beagh-Mullaghfad-Lisnaskea SPA	0	The DAERA identify the pollution to surface waters, Invasive non-native species and other ecosystem modifications; Changes in biotic and abiotic conditions are threats to the SPA. The plan introduces potential sources for these effects through construction interactions.	Yes	Yes
000007	Lough Oughter and Associated Loughs SAC	0.88	Eutrophication and residential pressures have been identified as threats for this lake by the NPWS. Sources for these effects are present within the Plan.	Yes	Yes
UK0016 614	Upper Lough Erne SAC	1.29	The site-specific threats, sensitivities and vulnerabilities of this SAC identified by DAERA are associated with forest management and land use. In general, the qualifying interest features are sensitive to water quality effects. Therefore, following the precautionary principal, stage 2 is required.	No	Yes

004049	Lough Oughter SPA	8.55	The NPWS have not identified any site-specific threats and have published generic conservation objectives. Therefore, the assessment focuses on the ecological resource requirements and sensitivities for the SCI's. There will be no land take or direct interactions between the SPA and CDP. Birds are vulnerable to disturbance through anthropogenic activities, however the SNH ¹⁵ have shown that distances beyond 1km are more than enough to buffer against effects. Therefore, there are no pathways for effects to the sensitivities of the special conservation interests of the SPA, and the conservation objectives are not under threat.	No	No
004026	Dundalk Bay SPA	9.10	The NPWS have not identified any site-specific threats and have published generic conservation objectives. Therefore, the assessment focuses on the ecological resource requirements and sensitivities for the SCI's. There will be no land take or direct interactions between the SPA and CDP. Birds are vulnerable to disturbance through anthropogenic activities, however the SNH ¹⁵ have shown that distances beyond 1km are more than enough to buffer against effects. Therefore, there are no pathways for effects to the sensitivities of the special conservation interests of the SPA, and the conservation objectives are not under threat.	No	No
000455	Dundalk Bay SAC	10.37	No Site-Specific threats were identified by the NPWS. Estuarine habitats and mud/sand flats are vulnerable to changes in sediment conditions and water quality. As there is a hydrological link there are pathways for effects. The potential sources for effects within the plan and the distance between the sites is sufficient to buffer against potential significant adverse effects. There is potential for in combination effects due to the hydrological pathway.	No	Yes
004091	Stabannan-Braganstown SPA	11.23	The NPWS have not identified any site-specific threats and have published generic conservation objectives. Therefore, the assessment focuses on the ecological resource requirements and sensitivities for the SCI's. There will be no land take or direct interactions between the SPA and CDP. Birds are vulnerable to disturbance through anthropogenic activities, however the SNH ¹⁵ have shown that distances beyond 1km are more than enough to buffer against effects. Therefore, there are no	No	No

¹⁵ SNH (2007) A Review of Disturbance Distances in Selected Bird Species M. Ruddock & D.P. Whitfield

			pathways for effects to the sensitivities of the special conservation interests of the SPA, and the conservation objectives are not under threat.		
UK0030 277	Slieve Gullion SAC	11.61	The DAERA identify site specific threats such as modification of cultivation practices, grazing, forest exploitation etc. European Dry Heath is sensitive to localised effects such as trampling, fire, and/or invasive species. Given the distances and types of potential effects identified within the characteristics of the plan, there will be no direct localised effects to the QI's or SSCO's of the site. The spread of invasive species from the plan area to the site is not likely. Land use practices will not be affected, and air Bourne pollutants are not known to cause significant effects over extensive distances such as this, especially in urban environments due to the downward washing effects of buildings. Therefore, are no pathways or sources for significant adverse effects.	No	No
UK0030 212	Moninea Bog SAC	12.76	Active raised bogs are sensitive to localised effects such as changes to hydraulic condition. Given the distances and types of potential effects identified within the characteristics of the plan, there will be no direct localised effects to the QI's or SSCO's of the site. Land use practices will not be affected, and air Bourne pollutants are not known to cause significant effects over extensive distances such as this, especially in urban environments due to the downward washing effects of buildings. The Site is within the Woodford River Basin ¹⁶ , upstream of Monaghan County. Therefore, are no pathways or sources for significant adverse effects.	No	No

¹⁶ <https://gis.epa.ie/EPAMaps/>

3.4 Other Plans and Programs

Article 6(3) of the Habitats Directive requires an assessment of a plan or project to consider other plans or programmes that might, in combinations with the plan or project, have the potential to adversely impact upon European Sites. Table 3.3 outlines plans or projects that may interact with the cause in-combination effects to European Sites. The plans or projects are listed according to a spatial hierarchy of National, Regional/Local Projects and Plans.

- National Spatial Strategy 2002-2020
- Grid 25
- Energy Policy framework 2007-2020, Governments White Paper
- Irish Water's Water Services Strategic Plan 2015 and associated Proposed Capital Investment Plan 2014-2016
- Regional Planning Guidelines for the Border Region 2010 - 2022
- Cavan County Development Plan 2014-2020
- Meath County Development Plan 2013-2019
- Louth County Development Plan 2015-2021
- Dungannon & South Tyrone Area Plan
- Fermanagh Area Plan 2007
- Armagh Area Plan
- Banbridge / Newry and Mourne Area Plan
- Cavan Town & Environs Development Plan 2014 – 2020
- Kells Development Plan 2013-2019

Given the uncertainties that exist with regard to the scale and location of developments facilitated by the Plan, it is recognised that the identification of in-combination effects is limited and that the assessment of in-combination effects will need to be undertaken in a more comprehensive manner at the project-level.

As the Plan have to comply with the policies and objectives of Monaghan CDP as well as higher-level plans (detailed above) the potential for effects to European Sites are thought to be very low. Therefore, in-combination effects to the integrity of European Sites are not seen to be likely.

Table 3.3 Plans or projects within the Zone of Influence of the Plan that may have in-combination effects European Sites

Plan or project	Status	Overview	Possible significant effects from plan or project	Is there a risk of significant in-combination effects	Possible significant in-combination effects
National Spatial Strategy 2002-2020	Published	Objectives of the NSS are to achieve a better balance of social, economic and physical development across Ireland, supported by more effective planning. Objectives in relation to the Draft CDP are discussed above.	This plan was subject to SEA and AA which incorporated robust mitigation measures into the plan itself to minimise effects.	Potential in-combination effect may arise where there is a requirement to provide for new infrastructure or where new development occurs. Provision of infrastructure/development may result in: Habitat loss Alteration of hydrology Deterioration in water quality Disturbance during construction / operation.	No, The mitigation measures contained within both plans prioritise the avoidance of effects where possible and provide measures to minimise effects. In combination effects from project which arise from the implementation of these plans will not be significant.
Grid 25	Published	Grid25 is a high-level strategy outlining how EirGrid intends to undertake the development of the electricity transmission grid in the short, medium and longer terms, to support a long-term sustainable and reliable electricity supply. The Grid25 strategy thereby seeks to implement the provisions of the 2007 Government White Paper on Energy - "Delivering a Sustainable Energy Future for Ireland" in terms of development of electricity transmission infrastructure. The Grid25 Implementation Programme (IP) is a practical strategic overview of how the early stages of Grid25 are intended to be implemented.	This plan was subject to SEA and AA which incorporated robust mitigation measures into the plan itself to minimise effects.	Potential in-combination effects may arise where there is a requirement to provide for new electrical infrastructure or where associated development occurs. Provision of infrastructure/development may result in: Habitat loss Alteration of hydrology Deterioration in water quality Disturbance during construction / operation.	No, The mitigation measures contained within both plans prioritise the avoidance of effects where possible and provide measures to minimise effects. In combination effects from project which arise from the implementation of these plans will not be significant
Energy Policy framework 2007-2020, Governments White Paper	Published	This policy states that the Government is committed to delivering a significant growth in renewable energy as a contribution to fuel diversity in power generation with a 2020 target of 33% electricity consumption	This plan was subject to SEA and AA which incorporated robust mitigation measures into	Potential in-combination effects may arise where there is a requirement to provide for new wind energy infrastructure or where new associated development occurs. Provision of infrastructure/development may result in:	No, The mitigation measures contained within both plans prioritise the avoidance of effects where possible and provide measures to minimise effects. In

			the plan itself to minimise effects.	Habitat loss Alteration of hydrology Deterioration in water quality Disturbance during construction / operation	combination effects from project which arise from the implementation of these plans will not be significant.
Irish Water's Water Services Strategic Plan 2015 and associated Proposed Capital Investment Plan 2014-2016	Published	This Water Services Strategic Plan sets out strategic objectives for the delivery of water services over the next 25 years up to 2040. It details current and future challenges which affect the provision of water services and identifies the priorities to be tackled in the short and medium term.	This plan was subject to SEA and AA which incorporated robust mitigation measures into the plan itself to minimise effects.	<p>Potential in-combination effects may arise where there is a requirement to provide for new water and waste water infrastructure and capacity.</p> <p>Meeting additional potable water demands and waste water treatment demands arising from the proposed increase in population has the potential to adversely affect, in the case of abstractions from and effluent discharges to surface waters, the ecological status of surface waters and, in the case of groundwater abstractions, the quantitative status of groundwaters. Such demands would occur in-combination with those in adjoining counties. Adverse effects on the ecological status of surface waters and on the quantitative status of groundwaters would have the potential to impact upon protected species and habitats.</p> <p>Provision of infrastructure and increases in capacity may result in: Habitat loss Alteration of hydrology Deterioration in water quality Disturbance during construction / operation</p>	No, The mitigation measures contained within both plans prioritise the avoidance of effects where possible and provide measures to minimise effects. In combination effects from project which arise from the implementation of these plans will not be significant.
Regional					
Regional Planning Guidelines for the Border Region 2010 - 2022	Published	Policy document which aims to direct the future growth of the Midlands Region over the medium to long term and works to implement the strategic planning framework set out in the National Spatial Strategy (NSS)	This plan was subject to SEA and AA which incorporated robust mitigation	<p>Potential in-combination effects may arise where there is a requirement to provide for new infrastructure or where new development occurs.</p> <p>Provision of infrastructure/development may result in:</p>	No, The mitigation measures contained within both plans prioritise the avoidance of effects where possible and provide measures to

			measures into the plan itself to minimise effects.	Habitat loss Alteration of hydrology Deterioration in water quality Disturbance during construction / operation	minimise effects. In combination effects from project which arise from the implementation of these plans will not be significant.
County					
Cavan County Development Plan 2014-2020 Meath County Development Plan 2013-2019 Louth County Development Plan 2015-2021 Dungannon & South Tyrone Area Plan Fermanagh Area Plan 2007 Armagh Area Plan Banbridge / Newry and Mourne Area Plan	Published	Overall strategies for the proper planning and sustainable development of the administrative area of the relevant Local Authorities.	These plans were subject to SEA and AA which incorporated robust mitigation measures into the plan itself to minimise effects.	Monaghan shares its boundary with a number of counties. Furthermore, a number of European sites are located in more than one county. Similar development plans are in existence throughout the region, accordingly these plans acting alone or in combination can have a cumulative impact on European sites located within County Monaghan. Provision of infrastructure or where new development occurs may result in: Habitat loss Alteration of hydrology Deterioration in water quality Disturbance during construction / operation	No, The mitigation measures contained within these plans and the variation itself prioritise the avoidance of effects where possible and provide measures to minimise effects. In combination effects from project which arise from the implementation of these plans will not be significant.
Local					
Cavan Town & Environs Development Plan 2014 – 2020 Kells Development Plan 2013-2019	Published	Strategies for development in towns and villages.	These plans were subject to SEA and AA which incorporated robust mitigation measures into the plan itself to minimise effects.	Potential in-combination effects may arise where there is a requirement to provide for new infrastructure or where new development occurs. Provision of infrastructure/development may result in: Habitat loss Alteration of hydrology Deterioration in water quality Disturbance during construction / operation	No, The mitigation measures contained within these plans and the variation itself prioritise the avoidance of effects where possible and provide measures to minimise effects. In combination effects from project which arise from the implementation of these plans will not be significant.

3.5 Conclusions

The likely effects that could arise from the Monaghan County Development Plan 2019-2025 have been examined in the context of a number of factors that could potentially affect the integrity of any European Site. On the basis of the findings of this Screening for AA, it is concluded that the Plan:

- is not directly connected with or necessary to the management of a European Site; and
- may have significant effects on any European Site.

Therefore, applying the precautionary principle and in accordance with Article 6(3) of the Habitats Directive, a Stage 2 AA is required (see Section 4 of this report).

4 Stage 2 Appropriate Assessment

4.1 Introduction

The main objective of this stage (Stage 2) in the AA is to determine whether the Plan would result in significant adverse impacts on the integrity of any European Site with respect to the site's structure, function, and/or conservation objectives.

The Stage 1 Screening presented above has identified nine European Sites with potential to be affected by the Plan (see Table 4.1). Therefore, taking a precautionary approach, Stage 2 AA is required. The potential adverse effects considered at this stage will either be effects occurring as a result of the implementation of the Plan alone or in-combination with other plans, programmes, and/or projects.

Detailed information relevant to the sites that has been reviewed to inform the AA includes the following:

- *NPWS Site Synopsis*
- *Natura 2000 Standard Data Form*
- *Conservation Objectives and supporting documents*

Table 4.1 European Sites Potentially Impacted upon by the Plan.

Coastal & Marine	Lakes, Rivers, & Aquatics Vegetation	Caves, woodland, & Bats	Bog Habitats	SPA
Dundalk Bay SAC	Lough Oughter and Associated Loughs SAC	-	Slieve Beagh SAC	Upper Lough Erne SPA
-	Upper Lough Erne SAC	-	Magheraveely Marl Loughs SAC	Slieve Beagh-Mullaghfad-Lisnaskea SPA
-	-	-	Kilroosky Lough Cluster SAC	Slieve Beagh SPA

4.2 Characterization of European Sites Potentially Affected

The Plan area has a European Site within its boundaries as well as being directly adjacent to another European Site. The Appropriate Assessment Screening identified seven European Sites with pathway receptors for potential impacts. Therefore, it is necessary to characterize each of these sites and the sensitivities of their qualifying interests, special conservation interests or their conservation objectives.

Table 4.2 characterizes each of the qualifying interests of the nine European Sites brought forward from stage 1 (Table 4-1). These are described in context of each of the sites vulnerabilities in **Appendix I**. Each of these site characterizations were derived from the NPWS website¹⁷. The conservation objectives for each site, as prepared by the NPWS, were reviewed to identify any site-specific interests or aims/objectives for the designated features.

¹⁷ NPWS (2018), last accessed February 2018; <https://www.npws.ie/protected-sites>

Table 4.2 Characterisation of the qualifying interests/special conservation interests of each of the European Sites potentially impacted upon by the Plan

Site Code	Site Name	Distance (km)	Qualifying features (Qualifying Interests or Special Conservation Interests)
001786	Kilroosky Lough Cluster SAC	Within	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. [3140] Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> [7210] Alkaline fens [7230] <i>Austropotamobius pallipes</i> (White-clawed Crayfish) [1092]
004167	Slieve Beagh SPA	Within	Hen Harrier (<i>Circus cyaneus</i>) [A082]
UK0016621	Magheraveely Marl Loughs SAC	0	White-clawed (or Atlantic stream) crayfish <i>Austropotamobius pallipes</i> [1092] Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i> * [7210] Alkaline fens [7230] Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara spp</i> [3140]
UK0016622	Slieve Beagh SAC	0	Natural dystrophic lakes and ponds [3160] Blanket bogs (* if active bog) [7130] European dry heaths [4030]
UK9020071	Upper Lough Erne SPA	0	Greenland White-fronted Goose (<i>Anser albifrons flavirons</i>) [A395]
UK9020091	Slieve Beagh-Mullaghfad-Lisnaskea SPA	0	Hen Harrier (<i>Circus cyaneus</i>) [A082]
000007	Lough Oughter And Associated Loughs SAC	0.88	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150] Bog woodland [91D0] <i>Lutra</i> (Otter) [1355]
UK0016614	Upper Lough Erne SAC	1.29	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] 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] Otter <i>Lutra lutra</i> [1355]
000455	Dundalk Bay SAC	10.37	Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Perennial vegetation of stony banks [1220] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]

4.3 Identifying and Characterising Potential Significant Effects

The following parameters are described when characterising impacts (following CIEEM (2016), EPA (2002) and NRA (2009)):

Direct and Indirect Impacts - An impact can be caused either as a direct or as an indirect consequence of a proposed development.

Magnitude - Magnitude measures the size of an impact, which is described as high, medium, low, very low or negligible.

Extent - The area over which the impact occurs – this should be predicted in a quantified manner.

Duration - The time for which the effect is expected to last prior to recovery or replacement of the resource or feature.

- Temporary: Up to 1 Year;
- Short Term: The effects would take 1-7 years to be mitigated;
- Medium Term: The effects would take 7-15 years to be mitigated;
- Long Term: The effects would take 15-60 years to be mitigated;
- Permanent: The effects would take 60+ years to be mitigated.

Likelihood – The probability of the effect occurring taking into account all available information.

- Certain/Near Certain: >95% chance of occurring as predicted;
- Probable: 50-95% chance as occurring as predicted;
- Unlikely: 5-50% chance as occurring as predicted;
- Extremely Unlikely: <5% chance as occurring as predicted.

The Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines for ecological impact assessment (CIEEM 2016) define an ecologically significant impact as an impact (negative or positive) on the integrity of a defined site or ecosystem and/or the conservation status of habitats or species within a given geographic area. The integrity of a site is the coherence of its ecological structure and function, across its whole area, which enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified (CIEEM, 2016).

The Habitats Directive requires the focus of the assessment at this stage to be on the integrity of the site as indicated by its Conservation Objectives. It is an aim of NPWS to draw up conservation management plans for all areas designated for nature conservation. These plans will, among other things, set clear objectives for the conservation of the features of interest within a site.

Site-specific conservation objectives (SSCOs) have been prepared for a number of European Sites. These detailed SSCO's aim to define favourable conservation condition for the qualifying habitats and species at that site by setting targets for appropriate attributes which define the character habitat. The maintenance of the favourable condition for these habitats and species at the site level will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a species can be described as being achieved when: 'population data on the species concerned indicate that it is maintaining itself, and the natural range of the species is neither being reduced or likely to be reduced for the foreseeable future, and there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.'

Favourable conservation status of a habitat can be described as being achieved when: 'its natural range, and area it covers within that range, is stable or increasing, and the ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and the conservation status of its typical species is favourable.'

Generic Conservation Objectives for cSACs have been provided as follows:

- *To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.*

One generic Conservation Objective has been provided for SPAs as follows:

- *To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.*

4.3.1 Identification of Potential Effects

Potential impacts from the Plan which have, alone and/or in combination, been identified to result in adverse effects upon the QI's/SCI's or integrity of European Sites. Ecological impact assessment of potential impacts on European Sites is conducted utilizing a standard source-pathway-resource process; where, all three elements of this mechanism must be in place to establish an effect arising.

As outlined in the European Commission Environment DG document "*Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*", impacts that could potentially occur through the implementation of the Plan can be categorised under a number of headings:

- Loss / reduction of habitat area (e.g. due to the development of new projects)
- Disturbance to Key Species (e.g. increased public access to protected sites, or during the construction phase of infrastructure projects)
- Habitat or species fragmentation
- Reduction in species density
- Changes in key indicators of conservation value such as decrease in water quality / quantity (e.g. through inadequate wastewater treatment, run-off of pollutants during construction and operation of developments, agricultural runoff)

Each of these elements are considered below with reference to the QI's/SCI's of all of the European Sites brought forward from Stage 1 of the AA process. A detailed analysis of each sites individually can be found below in Table 4.3.

The Plan contributes towards the framework for sustainable development within Monaghan County Development Plans. The Plan also prescribes particular locations (site specific) of developments of infrastructure. Overall, the Plan, in combination with other plans and programmes, underpins the development of housing, tourism, communities and the town center with supporting transport, water, energy, and communication infrastructure within Monaghan County.

4.3.1.1 Reduction of Habitat Area

The distributions of European Sites within the Monaghan County border are restricted to the outskirts and border of the plan area. There are no European Sites within the settlement zones identified by the plan. There are provisions within the Plan to ensure that projects resulting from the implementation of the plan will not result in any direct loss of habitat quality or area (Table 4.3).

4.3.1.2 Fragmentation

Habitat fragmentation can occur through a number of vectors such as the direct removal of habitat or the modification of habitat features to reduce their functionality. The installation of light features can introduce a barrier to the free movement of species such as bats due to the increased predation risk in the vicinity. Measures to control potential such barriers to movement have been included in the plan; Policies LP1, LP2 and LP3 ensure that any light pollution source is minimised. The distribution of European Sites in Monaghan County is limited to the outskirts, and borders of the county. Therefore, fragmentation within the county with respect to European designated sites is not relevant in this incidence.

4.3.1.3 Disturbance to Key Species

Disturbance effects are caused by any activity that has potential to alter the movement patterns/distribution of species. Disturbance effects can relate to direct disturbance through human activity/movement or noise pollution. The plan accounts for noise pollution effects through its policies and objectives affording protection to European Sites by ensuring any projects that arise from the implementation of the plan avoid or minimise noise in compliance with the levels Noise Directive 2002/49/EC and associated Environmental Noise Regulations 2006. Other disturbance effects could relate to a reduction in habitat quality due to anthropocentric sensitivities for species such as the hen harrier. Policies to ensure the protection of habitat quality have been built into the plan (Table 4.3). Any significant development will be required to submit an appropriate Construction and Environmental Management Plan in accordance with the criteria set out in Section 15.30 of Chapter 15 of the Monaghan County Development Plan 2019-2025 (Policy CEMP1); these include:

- Measures to prevent the spillage or deposit of clay, rubble or other debris,
- Details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels,
- Containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained; such bunds shall be roofed to exclude rainwater,
- Disposal of construction/demolition waste and details of how it is proposed to manage excavated soil,
- A water and sediment management plan, providing for means to ensure that surface water runoff is controlled such that no silt or other pollutants enter local water courses or drains,
- Details of a water quality monitoring and sampling plan.
- If peat is encountered, a peat storage, handling and reinstatement management plan is required.
- Measures adopted during construction to prevent the spread of invasive species (such as Japanese Knotweed).
- Appointment of an ecological clerk of works at site investigation, preparation and construction phases.
- Details of appropriate mitigation measures for lighting specifically designed to minimise impacts to biodiversity.

These measures are robust to ensure that any sensitive habitat features or species will be identified and only compliant applications will be granted. All of the policies related to positive effects for Biodiversity are detailed in Table 4.3.

4.3.1.4 Reduction in species density

There are no identified risks to habitat quality or habitat fragmentation due to the distribution of European Sites within Monaghan County. Therefore, the population densities of the qualifying interest and special conservation interest species of the European Site are not under threat by the plan. The policies and objectives within the plan are robust to ensure the ecological integrity of the European sites to ensure they can maintain current population densities.

4.3.1.5 Changes of Indicators of Conservation Value

Water quality is the primary macro indicator of conservation value. The plan contains many robust policies and objectives to ensure the protection of both surface and ground water quality. Development within the vicinity of groundwater or surface water dependant European Sites will not be permitted where there is potential for a likely significant impact upon the groundwater or surface water supply to the European Sites. Additionally, the policies provide broader scope to ensure the protection of the wider landscape associated with riparian zones and habitats sensitive to hydrological interactions; such as Policy HS20.

Table 4.3 Characterisation of Potentially Impacted from the Plan to the Qualifying Interests/Special Conservation Interests of the European Sites brought forward from Stage 1

Site Code	Site Name	Distance (km)	Characterization of Potential Effects and Identification of Mitigation required	Significant Effects	Mitigation Required	Residual Effects
001786	Kilroosky Lough Cluster SAC	Within	<p>There are no site-specific threats identified by the NPWS. The qualifying interests and conservation objectives are heavily reliant on water quality. Development within the catchment area of this site pose potential significant threat to the site. Policies are required to ensure the water quality is maintained. The plan contains robust policies to ensure water quality is maintains such as:</p> <p>WPP11: <i>Development within the vicinity of groundwater or surface water dependant Natura 2000 sites will not be permitted where there is potential for a likely significant impact upon the groundwater or surface water supply to the Natura 2000 site. Where appropriate, the applicant shall demonstrate with hydro geological evidence, that the proposed development will not adversely affect the quality or quantity of groundwater or surface water supply to the Natura 2000 sites.</i></p> <p>WPP3: <i>To protect known and potential groundwater reserves in the county. In assessing applications for developments, the planning authority will consider the impact on the quality of water reserves and will have regard to the recommended approach in the Groundwater Protection Response Schemes published by GSI. The employment of the methodology identified in the 'Groundwater Protection Scheme Reports for County Monaghan public supply sources' (available at www.gsi.ie) and 'Guidance on the Authorisation of Discharges to Groundwater' (available at www.epa.ie) will be required where appropriate.</i></p> <p>WPP4: <i>Require submission of a water protection plan and detailed site drainage plans with all planning applications. Maps of sensitive areas waters, a Water Protection Plan Checklist (Appendix 16 of the Monaghan CDP) and latest water body status information at www.catchments.ie will assist in the preparation of plans at application stage.</i></p> <p>SDP1: <i>To require best practice in the design, construction and operation of expanding and new developments to ensure minimum effects on the aquatic environment. Sustainable Urban Drainage Systems designed to ensure both water quality protection and flood minimisation should be included in developments for commercial, industrial, residential, intensive agricultural, public and institutional premises with significant roof or hard surface areas and multiple residential developments. For guidance refer to Monaghan County Councils Storm Water Technical Guidance Document 2017.</i></p> <p>SDP2 <i>To ensure that new development is adequately serviced with surface water drainage infrastructure and promote the use of Sustainable Drainage Systems as appropriate to minimise the effect of a development on flooding and pollution of existing waterways.</i></p>	Yes	Yes	No

Site Code	Site Name	Distance (km)	Characterization of Potential Effects and Identification of Mitigation required	Significant Effects	Mitigation Required	Residual Effects
			<p>SDP3: To require that planning applications are accompanied by a comprehensive SUD's assessment that addresses run-off quantity, run-off quality and its impact on the existing habitat and water quality.</p> <p>SDP4: To ensure that all storm water discharges shall be restricted onsite attenuation and or other measures to the pre-development levels (green field) in all new developments. All attenuated storage volumes must take in to consideration climate change. Guidance is available from The Greater Dublin Strategic Drainage Study Technical Document, Volume 5.</p> <p>SDP5: To require all run off from new developments in towns/villages to be restricted to the pre-development levels (green field) by storm water attenuation on site and use of SUDs (sustainable urban drainage systems), as a measure to assist in flood avoidance. For guidance refer to Monaghan County Councils Storm Water Technical Guidance Document 2017.</p>			
004167	Slieve Beagh SPA	Within	<p>There are no site-specific threats identified by the NPWS and they provide generic conservation objectives. There are no lands zoned within the area of the SPA, and all lower level plans/projects that result through the implementation of the plan will be subject to their own environmental assessments.</p> <p>WPP2: In assessing applications for development, the planning authority shall ensure compliance with the European Communities Environmental Objectives (Surface Waters) Regulations, 2009 (S.I. No 272 of 2009) and the European Communities Environmental Objectives (Groundwater Regulations, 2010 (S.I. No. 9 of 2010).</p> <p>Hen harriers are sensitive to disturbance through noise pollution which is a potential source for effect with the plan. This will be mitigated for through compliance with national noise regulations.</p> <p>NP1: To promote the implementation of the Noise Directive 2002/49/EC and associated Environmental Noise Regulations 2006.</p> <p>Hen harriers require bogland habitat which are sensitive to hydrological interactions and localised land use management effects. The plan does not contain any policies or objectives which will alter the existing land use of the SPA. Also, the plan contains robust policies to ensure water quality is maintains such as:</p> <p>WPP11 (detailed above) WPP3 (detailed above) WPP4 (detailed above) SDP1 (detailed above) SDP2 (detailed above) SDP3 (detailed above) SDP4 (detailed above) SDP5 (detailed above)</p>	Yes	Yes	No

Site Code	Site Name	Distance (km)	Characterization of Potential Effects and Identification of Mitigation required	Significant Effects	Mitigation Required	Residual Effects
UK0016621	Magheraveely Marl Loughs SAC	0	<p>DAERA identify the main threats to the site to be fertilizers, drainage, sedimentation, invasive, grazing, nitrogen deposition, land use and climate change. The qualifying interests and conservation objectives are heavily reliant on water and air quality. Development within the catchment area of this site pose potential significant threat to the site. Policies are required to ensure the water quality is maintained.</p> <p>The plan contains robust policies to ensure water quality is maintains such as:</p> <p>WPP11 (detailed above)</p> <p>WPP3 (detailed above)</p> <p>WPP4 (detailed above)</p> <p>SDP1 (detailed above)</p> <p>SDP2 (detailed above)</p> <p>SDP3 (detailed above)</p> <p>SDP4 (detailed above)</p> <p>SDP5 (detailed above)</p> <p>The plan contains robust policies to ensure air quality is maintains such as:</p> <p>AQP1 <i>Quality and Cleaner Air for Europe (CAFE) Directive (2008/50/EC) and ensure that all air emissions associated with new developments are within Environmental Quality Standards as out in the Air Quality Standards Regulations 2011 (SI No. 180 of 2011) (or any updated/superseding documents). Promote the preservation of best ambient air quality compatible with sustainable development in accordance with the EU Ambient Air.</i></p> <p>AQP2 <i>To contribute toward compliance with air quality legislation; greenhouse gas emission targets; management of noise levels; and reductions in energy usage.</i></p> <p>The SSCOs identify the need to reduce the risk of agricultural intensification and the control of slurry in the surrounding area. The plan provides robust policies in relation to these matters:</p> <p>WPP6 <i>Development shall be not permitted within 200 metres of any lake where relevant, that is the source of a water supply, where that development has the potential to pollute the lake.</i></p> <p>WPP7 <i>Details of land spreading arrangements including a Fertiliser Plan for manures or sludge arising from industrial or intensive agricultural development shall be submitted to the planning authority with all planning applications.</i></p> <p>WPP8 <i>Ensure that industrial or intensive agricultural developments generating manure, organic fertilisers or sludge, that are dependent on off-site recovery or disposal take account of sensitive area mapping including lands with impaired drainage/percolation properties, steeply sloping topography and lands where rock outcrop and extreme vulnerability of groundwater is present. The EPA guidance document 'Land spreading of Organic Waste' shall be consulted when assessing land suitability</i></p>	Yes	Yes	No

Site Code	Site Name	Distance (km)	Characterization of Potential Effects and Identification of Mitigation required	Significant Effects	Mitigation Required	Residual Effects
			<p>WPP10 To restrict the use of imported manure/slurry in relation to water supply source catchments, high status waterbodies and "At Risk" water bodies. Consult www.catchment.ie for maps of waterbodies and their classifications.</p> <p>WPP11 Development within the vicinity of groundwater or surface water dependant Natura 2000 sites (Kilroosky Lough Cluster SAC) will not be permitted where there is potential for a likely significant impact upon the groundwater or surface water supply to the Natura 2000 site. Where appropriate, the applicant shall demonstrate with hydro geological evidence, that the proposed development will not adversely affect the quality or quantity of groundwater or surface water supply to the Natura 2000 sites.</p> <p>WPP12 Development which would have an unacceptable impact on the water environment, including surface water and groundwater quality and quantity, river corridors and associated wetlands will not be permitted.</p> <p>Similarly, Invasive species and air pollution are identified as threats to the site by the DAERA. The spread of invasive species is a potential effect that arises from construction phase of developments. Robust policies to prevent the spread of invasive species are contained within the plan which include.</p> <p>ISP1 Prevent the spread of invasive species within the Plan area and require landowners and developers to adhere to best practice in relation to the control of invasive species and to promote public awareness in relation to invasive species through awareness campaigns.</p> <p>ISP2 To support, as appropriate, the National Parks and Wildlife Service's efforts to seek to control and manage the spread of non-native invasive species on land and water. Where the presence of non-native invasive species is identified at the site of any proposed development or where the proposed activity has an elevated risk of resulting in the presence of these species, details of how these species will be managed and controlled will be required.</p> <p>HLP10 Any plan or project which is likely to impact on the conservation objectives of a Natura 2000 site shall be screened for Appropriate Assessment (AA) and where pertinent a Stage 2 Appropriate Assessment (Natura Impact Statement) shall be undertaken in order to make a determination. Natura 2000 sites outside the county and located within 15km of the proposed development site should also be screened for Appropriate Assessment. A Natura Impact Statement (NIS) shall incorporate a written statement which sets out mitigation measures to prevent the risk of invasive species onto a Natura 2000 site.</p>			
UK0016622	Slieve Beagh SAC	0	Peat cutting, burning, drainage, grazing, afforestation, nitrogen deposition, recreation, fly tipping and land use change are identified as features within the conservation objectives from DAERA. These are predominantly localised effects related to land use management. The SSCO's identify the need to reduce the risk of agricultural	Yes	Yes	No

Site Code	Site Name	Distance (km)	Characterization of Potential Effects and Identification of Mitigation required	Significant Effects	Mitigation Required	Residual Effects
			<p>intensification and the control of slurry in the surrounding area. The plan provides robust policies in relation to these matters:</p> <p>WPP6 (detailed above) WPP7 (detailed above) WPP8 (detailed above) WPP10 (detailed above) WPP11 (detailed above) WPP12 (detailed above)</p> <p>Similarly, Invasive species and air pollution are identified as threats to the site by the DAERA. The spread of invasive species is a potential effect that arises from construction phase of developments. Robust policies to prevent the spread of invasive species are contained within the plan which include.</p> <p>ISP1 (detailed above) ISP2 (detailed above) HLP10 (detailed above)</p> <p>The plan contains robust policies to ensure air quality is maintains such as:</p> <p>AQP1 (detailed above) AQP2 (detailed above)</p>			
UK9020071	Upper Lough Erne SPA	0	<p>Section 11 of the SSCO prepared by DAERA identifies a number of localised land use management issues. There are no features of the CDP which interact with the issues identified by the SSCO except in relation to potential disturbance effects due to proximity. Greenland white fronted geese are sensitive to disturbance through noise pollution which is a potential source for effect with the plan. This will be mitigated for through compliance with national noise regulations.</p> <p>NP1: To promote the implementation of the Noise Directive 2002/49/EC and associated Environmental Noise Regulations 2006.</p> <p>Greenland white fronted geese aquatic based habitat types, as well as agricultural grassland fields for foraging. Their aquatic habitat features are sensitive to hydrological interactions and localised land use management effects. The plan does not contain any policies or objectives which will alter the existing land use of the SPA. Also, the plan contains robust policies to ensure water quality is maintains such as:</p> <p>WPP11 (detailed above) WPP3 (detailed above) WPP4 (detailed above) SDP1 (detailed above) SDP2 (detailed above) SDP3 (detailed above) SDP4 (detailed above) SDP5 (detailed above)</p>	Yes	Yes	No

Site Code	Site Name	Distance (km)	Characterization of Potential Effects and Identification of Mitigation required	Significant Effects	Mitigation Required	Residual Effects
UK9020091	Slieve Beagh-Mullaghfad-Lisnaskea SPA	0	<p>The SSCOs prepared by DAERA highlight habitat extent, forestry management and predation to be the threats to the site. Hen harriers are sensitive to disturbance through noise pollution which is a potential source for effect with the plan. This will be mitigated for through compliance with national noise regulations.</p> <p>NP1 (detailed above)</p> <p>Hen harriers require bogland habitat which are sensitive to hydrological interactions and localised land use management effects. The plan does not contain any policies or objectives which will alter the existing land use of the SPA. Also, the plan contains robust policies to ensure water quality is maintains such as:</p> <p>WPP11 (detailed above)</p> <p>WPP3 (detailed above)</p> <p>WPP4 (detailed above)</p> <p>SDP1 (detailed above)</p> <p>SDP2 (detailed above)</p> <p>SDP3 (detailed above)</p> <p>SDP4 (detailed above)</p> <p>SDP5 (detailed above)</p> <p>Invasive non-native species and other ecosystem modifications; Changes in biotic and abiotic conditions are threats to the SPA. The plan introduces potential sources for these effects through construction interactions. Robust policies to prevent the spread of invasive species are contained within the plan which include.</p> <p>ISP1 (detailed above)</p> <p>ISP2 (detailed above)</p> <p>HLP10 (detailed above)</p>	Yes	Yes	No
000007	Lough Oughter and Associated Loughs SAC	0.88	<p>Eutrophication and residential pressures have been identified as threats for this lake by the NPWS. Policies are required to ensure the water quality is maintained. The plan contains robust policies to ensure water quality is maintains such as:</p> <p>WPP11 (detailed above)</p> <p>WPP3 (detailed above)</p> <p>WPP4 (detailed above)</p> <p>SDP1 (detailed above)</p> <p>SDP2 (detailed above)</p> <p>SDP3 (detailed above)</p> <p>SDP4 (detailed above)</p> <p>SDP5 (detailed above)</p>	No	Yes	No
UK0016614	Upper Lough Erne SAC	1.29	<p>The DAERA have identified that land use management and risks from invasive species, nutrient pressures from agricultural runoff and hydrological interactions are the main threats to the site. The spread of invasive species is a potential effect that arises from</p>	No	Yes	No

Site Code	Site Name	Distance (km)	Characterization of Potential Effects and Identification of Mitigation required	Significant Effects	Mitigation Required	Residual Effects
			<p>construction phase of developments. Robust policies to prevent the spread of invasive species are contained within the plan which include:</p> <p>ISP1 (detailed above) ISP2 (detailed above) HLP10 (detailed above)</p> <p>Agricultural intensification and the control of slurry in the surrounding area is addressed within the plan which provides robust policies in relation to these matters:</p> <p>WPP6 (detailed above) WPP7 (detailed above) WPP8 (detailed above) WPP10 (detailed above) WPP11 (detailed above) WPP12 (detailed above)</p> <p>The qualifying interest's features are sensitive to water quality effects. Policies are required to ensure the water quality is maintained. The plan contains robust policies to ensure water quality is maintained such as:</p> <p>WPP11 (detailed above) WPP3 (detailed above) WPP4 (detailed above) SDP1 (detailed above) SDP2 (detailed above) SDP3 (detailed above) SDP4 (detailed above) SDP5 (detailed above)</p>			
000455	Dundalk Bay SAC	10.37	<p>There are no site-specific threats identified by the NPWS. Estuarine habitats and mud/sand flats are vulnerable to changes in sediment conditions and water quality. As there is a hydrological link there are pathways for effects. The potential sources for effects within the plan and the distance between the sites is sufficient to buffer against potential significant adverse effects. There is potential for in combination effects due to the hydrological pathway, therefore policies are required. Policies within the plan to ensure this include:</p> <p>WPP11 (detailed above) WPP3 (detailed above) WPP4 (detailed above) SDP1 (detailed above) SDP2 (detailed above) SDP3 (detailed above) SDP4 (detailed above) SDP5 (detailed above)</p>	No	Yes	No

5 Mitigation Measures

5.1 Introduction

This section outlines measures that have been incorporated into the Plan in order to mitigate against potential effects to European Sites as identified above.

The Plan was prepared in an iterative manner whereby Monaghan Council prepared the first draft of the Plan which was provided to CAAS who made suggestions for integration into the Plan. Monaghan County Council then reviewed the Plan to take account of the SEA/AA suggestions and sent the following revision back to CAAS for comment. A similar process was conducted with the NPWS and EPA, who's consideration and concerns were incorporated into the Plan.

In order to demonstrate that there will be no adverse effects from the Plan, mitigation measures have been devised and incorporated into the text of the Plan, described below. The measures that have been incorporated with those proposed by the SEA Environmental Report and with other relevant plans and programmes such as the programme of measures proposed by the Transport Strategy for Monaghan and the River Basin Management Plans along with their associated SEAs.

Based on the types of impacts identified above, the mitigation measures presented below are split into two main categories, measures to all environmental factors and measures to Protect Biodiversity and Flora and Fauna.

5.2 Measures incorporated into the text of Plan

5.2.1 Mitigation

As outlined in Section 4.3 of this assessment a number of significant effects that could affect habitats and species have been identified. No zoning or specific projects are proposed by the Plan that would result in direct impacts on any European Site.

Measures have been included in the policies and objectives of the Plan that will ensure these impacts are avoided. Section 4.3 of this assessment identified that effects to European Sites that have potential to arise through vectors such as: discharges that may affect water quality, and possible discharges of sediment and other pollutants from future development and associated works. Measures have been put in place to ensure surface water quality is maintained within the limits set out in the River Basin Management Plan for Ireland 2018-2021 and any subsequent local or regional plans. This will be assessed through the submission of a water protection plan and detailed site drainage plans with all planning applications. The Draft Plan contains a number of very robust mitigation measures.

As a result of the AA and Strategic Environmental Assessment of the Plan, a number of policies and objectives have been developed and existing policies amended to strengthen the protection afforded to European Sites. Amongst other things, these policies and objectives will ensure that appropriate assessments are carried out on all developments that arise due to the implementation of the plan. This will ensure that project level effects, which cannot be predicted at the Plan level, will be mitigated and impacts on protected sites through inappropriate development will be avoided. The Plan will also comply with measures listed in Section 9 of the SEA Environmental Report, which will further mitigate potential adverse effects on the environment. Measures relevant to the safeguarding all European Sites are reproduced in Table 5.1.

Table 5.1 Measures detailed in Table 9.1 of the SEA Environmental Report relevant to the protection of European Sites

Environmental Component	Potentially Significant Adverse Effects, if unmitigated	Mitigating Measures, including
All	All	<p>Regulatory framework for environmental protection and management HLP14 To cumulatively contribute towards, in combination with other users and bodies, the achievement of the objectives of the regulatory framework for environmental protection and management, including compliance with EU Directives - including the Habitats Directive (92/43/EEC, as amended), the Birds Directive (2009/147/EC), the Environmental Impact Assessment Directive (2011/92/EU, as amended by 2014/52/EC) and the Strategic Environmental Assessment Directive (2001/42/EC) – and relevant transposing Regulations.</p>
	All	<p>Corridor and Route Selection Process Section 7.15 The following Corridor and Route Selection Process will be undertaken for relevant new infrastructure: Stage 1 – Route Corridor Identification, Evaluation and Selection</p> <ul style="list-style-type: none"> - Environmental constraints and opportunities (such as existing linear infrastructure) will assist in the identification of possible route corridor options; - Potentially feasible corridors within which infrastructure could be accommodated will be identified and these corridors assessed. The selection of the preferred route corridor will avoid constraints and meet opportunities to the optimum extent, advised by relevant specialists; and - In addition to the constraints identified above, site-specific field data may be required to identify the most appropriate corridors. <p>Stage 2 – Route Identification, Evaluation and Selection</p> <ul style="list-style-type: none"> - Potentially feasible routes within the preferred corridor will be identified and assessed. The selection of preferred routes will avoid constraints and meet opportunities to the optimum extent, advised by relevant specialists, taking into account project level information and potential mitigation measures that are readily achievable; - In addition to the constraints identified above, site specific field data may be required to identify the most appropriate routes; and <p>In addition to environmental considerations, the identification of route corridors and the refinement of the route lines is likely to be informed by other considerations.</p>
	All	<p>Construction and Environmental Management Plan Section 15.30 Significant planning applications will be required to submit a Construction and Environmental Management Plan (CEMP) that shall incorporate relevant mitigation measures indicated in any lower tier Environmental Impact Assessment or Appropriate Assessment. CEMPs typically provide details of intended construction practice for the proposed development. The following information and issues should be included:</p> <ul style="list-style-type: none"> a) Location of the sites and materials compound(s) including area(s) identified for the storage of construction refuse, b) Location of areas for construction site offices and staff facilities, c) Details of site security fencing and hoardings,

Environmental Component	Potentially Significant Adverse Effects, if unmitigated	Mitigating Measures, including
		<p>d) Details of on-site car parking facilities for site workers during the course of construction,</p> <p>e) Details of the timing and routing of construction traffic to and from the construction site and associated directional signage,</p> <p>f) Measures to obviate queuing of construction traffic on the adjoining road network,</p> <p>g) Measures to prevent the spillage or deposit of clay, rubble or other debris,</p> <p>h) Alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of any public right of way during the course of site development works,</p> <p>i) Details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels,</p> <p>j) Containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained; such bunds shall be roofed to exclude rainwater,</p> <p>k) Disposal of construction/demolition waste and details of how it is proposed to manage excavated soil,</p> <p>l) A water and sediment management plan, providing for means to ensure that surface water runoff is controlled such that no silt or other pollutants enter local water courses or drains,</p> <p>m) Details of a water quality monitoring and sampling plan.</p> <p>n) If peat is encountered, a peat storage, handling and reinstatement management plan is required.</p> <p>o) Measures adopted during construction to prevent the spread of invasive species (such as Japanese Knotweed).</p> <p>p) Appointment of an ecological clerk of works at site investigation, preparation and construction phases.</p> <p>q) Details of appropriate mitigation measures for lighting specifically designed to minimise impacts to biodiversity.</p> <p>Policy CEMP1: To require all significant planning applications to submit an appropriate Construction and Environmental Management Plan in accordance with the criteria set out in Section 15.30 of Chapter 15 of the Monaghan County Development Plan 2019-2025.</p>
Biodiversity and Flora and Fauna	<p>Arising from both construction and operation of development and associated infrastructure:</p> <ul style="list-style-type: none"> • Loss of/damage to biodiversity in designated sites 	<p>Also see measures under soil, water and material assets below.</p> <p>Policy AAP1: All projects and plans arising from this plan will be screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive. A plan or project will only be authorized after the competent authority has ascertained, based on scientific evidence, Screening for Appropriate Assessment, and a Stage 2 Appropriate Assessment where necessary, that:</p> <ol style="list-style-type: none"> 1. The Plan or project will not give rise to significant adverse direct, indirect or secondary effects on the integrity of any European site (either individually or in combination with other plans or projects); or 2. The Plan or project will have significant adverse effects on the integrity of any European site (that does not host a priority natural habitat type/and or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature. In this case, it will be a requirement to follow procedures set out in legislation and

Environmental Component	Potentially Significant Adverse Effects, if unmitigated	Mitigating Measures, including
	<p>(including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna;</p> <ul style="list-style-type: none"> Habitat loss, fragmentation and deterioration, including patch size and edge effects; and Disturbance (e.g. due to noise and lighting along transport corridors) and displacement 	<p>agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of the Natura 2000 network; or</p> <p>3. The Plan or project will have a significant adverse effect on the integrity of any European site (that hosts a natural habitat type and/or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons of overriding public interest, restricted to reasons of 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. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of the Natura 2000 network.</p> <p>National Parks and Wildlife Service and Integrated Management Plans Article 6(1) of the Habitats Directive requires that Member States establish the necessary conservation measures for European sites involving, if need be, appropriate management plans specifically designed for the sites or integrated into other development plans. The NPWS's current priority is to identify site specific conservation objectives; management plans may be considered after this is done. Where Integrated Management Plans are being prepared for European sites (or parts thereof), the NPWS shall be engaged with in order to ensure that plans are fully integrated with the Plan and other plans and programmes, with the intention that such plans are practical, achievable and sustainable and have regard to all relevant ecological, cultural, social and economic considerations, including those of local communities.</p> <p>Biodiversity Action Plan HLP2 To adopt and implement in partnership with all relevant stakeholders the objectives and actions detailed in the Biodiversity Action Plan and any relevant action plan.</p> <p>Designated Sites Legislation HLP3 To contribute as appropriate towards the protection of designated sites in compliance with relevant EU Directives and applicable National Legislation.</p> <p>Protection of European Sites HLP4 No projects giving rise to significant cumulative, direct, indirect or secondary impacts on Natura 2000 sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall be permitted on the basis of this plan (either individually or in combination with other plans or projects).</p> <p>Ecological Corridors GIP6 To contribute towards the protection and enhancement of biodiversity and ecological connectivity, including woodlands, trees, hedgerows, rivers, streams, other landscape features and associated wildlife where these form part of the ecological network and/or may be considered as ecological corridors or stepping stones in the context of Article 10 of the Habitats Directive.</p> <p>Green Infrastructure GIP7 To encourage and facilitate, in consultation with relevant stakeholders, the development of green infrastructure that recognises the synergies that can be achieved with regard to the following: - Provision of open space amenities</p>

Environmental Component	Potentially Significant Adverse Effects, if unmitigated	Mitigating Measures, including
	of protected species.	<p>- Sustainable management of water - Protection and management of biodiversity - Protection of cultural heritage - Protection of protected landscape sensitivities.</p> <p>Protection of Riparian Zone and Waterbodies and Watercourses WPP16 To protect waterbodies and watercourses from inappropriate development, including rivers, streams, associated undeveloped riparian strips, wetlands and natural floodplains. This will include protection buffers in riverine and wetland areas as appropriate.</p> <p>Drainage or Reclamation of Wetlands WLP3 To implement the relevant parts of the Planning and Development (Amendment) (No. 2) Regulations 2011 and the European Communities (Amendment to Planning and Development) Regulations 2011 which require planning permission to be applied for where the area impacted by works relating to the drainage or reclamation of a wetland exceeds 0.1 hectares or where such works may have a significant effect on the environment. Such planning applications would need to be supported by an Appropriate Assessment where necessary.</p> <p>Light Sensitive Species LP3 To require that lighting fixtures should provide only the amount of light necessary for personal safety and should be designed so as to avoid creating glare or emitting light above a horizontal plane. Lighting fixtures should also have minimum environmental impact and protect light sensitive species such as bats.</p> <p>Non-designated habitats and biological diversity HLP5 To recognize that nature conservation is not just confined to designated sites and acknowledge the need to protect non-designated habitats and landscapes and to conserve the biological diversity.</p> <p>Non-native invasive species ISP2 To support, as appropriate, the National Parks and Wildlife Service's efforts to seek to control and manage the spread of non-native invasive species on land and water. Where the presence of non-native invasive species is identified at the site of any proposed development or where the proposed activity has an elevated risk of resulting in the presence of these species, details of how these species will be managed and controlled will be required.</p> <p>National Peatlands Strategy HLP6 To support the implementation of any relevant recommendations contained in the National Peatlands Strategy.</p> <p>Increases in Visitor Numbers to Semi-Natural Areas Policy TMP15 To seek to manage any increase in visitor numbers in order to avoid significant effects including loss of habitat and disturbance, including ensuring that new any projects, such as greenways, are a suitable distance from ecological sensitivities, such as riparian zones.</p>
Air and Climatic Factors	<ul style="list-style-type: none"> Emissions to air including greenhouse 	<p>Air Quality AQP1 Quality and Cleaner Air for Europe (CAFE) Directive (2008/50/EC) and ensure that all air emissions associated with new developments are within Environmental Quality Standards as out in the Air Quality Standards Regulations 2011 (SI No. 180 of 2011) (or any updated/superseding documents). Promote the preservation of best ambient air quality compatible with sustainable development in accordance with the EU Ambient Air.</p>

Environmental Component	Potentially Significant Adverse Effects, if unmitigated	Mitigating Measures, including
	gas emissions and other emissions.	<p>Air Quality, Greenhouse Gases, Noise and Energy AQP2 To contribute toward compliance with air quality legislation; greenhouse gas emission targets; management of noise levels; and reductions in energy usage.</p> <p>Climate Adaptation and Mitigation CCP10 Support and facilitate European and national objectives for climate adaptation and mitigation as detailed in the National Mitigation Plan, National Adaptation Framework and relevant Sectoral Adaptation Plan(s).</p> <p>Green Infrastructure GIP7 To encourage and facilitate, in consultation with relevant stakeholders, the development of green infrastructure that recognises the synergies that can be achieved with regard to the following:</p> <ul style="list-style-type: none"> - Provision of open space amenities - Sustainable management of water - Protection and management of biodiversity - Protection of cultural heritage - Protection of protected landscape sensitivities.

5.2.2 Monitoring Programme

As part of the SEA and AA process a Monitoring Programme has been developed with the aim of monitoring the environmental effects of Plan. The full details of the environmental monitoring programme are presented in Section 10 of the SEA Environmental Report. Monitoring can enable, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action.

Monitoring is based around indicators which allow quantitative measures of trends. Each indicator to be monitored is accompanied by the target(s) which were identified with regard to the relevant strategic actions. Table 5.2 below shows the indicators and targets relevant to any European Sites which have been selected for monitoring the likely significant effects of the implementation of the Plan. The source of data and frequency is also indicated. In addition to existing monitoring datasets, the output of lower-tier environmental assessment and decision making, including a review of project approvals granted and associated documents, will also be utilised as part of the Monitoring Programme. Where significant effects, including positive, negative, cumulative and indirect, have the potential to occur as a result of the undertaking of individual projects or multiple individual projects such instances should be identified and recorded and should feed into the monitoring evaluation.

Monitoring is an ongoing process and the programme allows for flexibility and the further refinement of indicators and targets. The Monitoring Programme may also be updated to deal with specific environmental issues, including unforeseen effects, as they arise. A stand-alone Monitoring Report on the significant environmental effects of the Plan will be prepared in advance of the review of the Plan.

Table 5.2 Extracted from the SEA report section 10; Table 10.1 Selected Indicators, Targets and Monitoring Sources

Environmental Component	Selected Indicator(s)	Selected Target(s)	Source (Frequency)
Biodiversity, Flora and Fauna	B1: Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive	B1: Maintenance of favourable conservation status for all habitats and species protected under National and International legislation to be unaffected by implementation of the Plan	<ul style="list-style-type: none"> • Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). • Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive (every 6 years). • Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs' National Monitoring Report for the Birds Directive under Article 12 (every 3 years). • Department of Agriculture, Environment and Rural Affairs Northern Ireland • Consultations with the NPWS (at monitoring evaluation).
	B2: Percentage loss of functional connectivity without remediation resulting from development provided for by the Plan	B2: No significant ecological networks or parts thereof which provide functional connectivity to be lost without remediation resulting from development provided for by the Plan	<ul style="list-style-type: none"> • Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). • CORINE mapping resurvey (every c. 5 years). • Review of Council Ecological Network Mapping
	B3i: Number of significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites and Area of Special Scientific Interest resulting from development provided for by the Plan B3ii: Number of significant impacts on the protection of listed species	B3i: Avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites and Area of Special Scientific Interest resulting from development provided for by the Plan B3ii: No significant impacts on the protection of listed species	<ul style="list-style-type: none"> • Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). • Consultations with the NPWS (at monitoring evaluation) • Department of Agriculture, Environment and Rural Affairs Northern Ireland.
	B4: Population of the county involved in land management	B4: Sustain the population of the county involved in land management	<ul style="list-style-type: none"> • Review of CSO figures for the County (every five years)

Environmental Component	Selected Indicator(s)	Selected Target(s)	Source (Frequency)
Water	W1: Classification of Overall Status (comprised of ecological and chemical status) under the Water Framework Directive	W1: Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status'	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). Data issued under the Water Framework Directive Monitoring Programme for Ireland and Northern Ireland (multi-annual).
	W2: Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC	W2: Not to affect the ability of groundwaters to comply with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). Data issued under the Water Framework Directive Monitoring Programme for Ireland and Northern Ireland (multi-annual).
	W3: Number of incompatible developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk	W3: Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk in compliance with <i>The Planning System and Flood Risk Management Guidelines for Planning Authorities</i>	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).
	M3i: Total collected and brought household waste M3ii: Packaging recovered (t) by self-complying packagers	M3i: Minimise increases in and, where possible, reduce household waste generation M3ii: Maximise increases in packaging recovered (t) by self-complying packagers	<ul style="list-style-type: none"> EPA National Waste Reports EPA Ireland's Environment Reports

6 Conclusion

Stage 1 Screening and Stage 2 AA of the Monaghan County Development Plan 2019-2025 has been carried out. Implementation of the Plan has the potential to result in effects to the integrity of any European Sites, if unmitigated.

The risks to the ecological integrity of the European Sites, taking account of the qualifying interests, special conservation interests and conservation objectives, have been addressed by the inclusion of mitigation measures that will prioritise the avoidance of effects in the first place and mitigate effects where these cannot be avoided. In addition to the measures featured within the plan, all lower level plans and projects arising through the implementation of the Plan will themselves be subject to AA when further details of design and location are known.

In-combination effects from interactions with other plans and projects were considered in the assessment and the mitigation measures incorporated into the plan are seen to be robust to ensure there will be no significant adverse effects as a result of the implementation of the Plan.

Having incorporated mitigation measures, it is considered that the Monaghan County Development Plan 2019-2025 will not have a significant adverse effect on the integrity of any European Site¹⁸. Therefore, no further assessment is required.

¹⁸ Except as provided for in Section 6(4) of the Habitats Directive, viz. There must be:

- a) no alternative solution available,
- b) imperative reasons of overriding public interest for the plan to proceed; and
- c) Adequate compensatory measures in place.