Ireland 2040 Our Plan

NATIONAL PLANNING FRAMEWORK

Natura Impact Statement

Ireland 2040 – Our Plan

Draft National Planning Framework

RPS

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1 INTRODUCTION

The Department of Housing, Planning, and Local Government (DHPLG), is preparing *Ireland 2040: The National Planning Framework* (NPF) on behalf of Government with input from other departments and agencies which themselves are tasked with developing policy on long term and place-based public policy and investment.

The purpose of the NPF is to provide a focal point for spatial plans throughout the planning hierarchy. It will provide a framework for the new Regional Spatial and Economic Strategies (RSESs) by the three Regional Assemblies and the associated enhancement of the economic development focus of local authorities as per the Local Government Reform Act 2014. The draft NPF will co-ordinate the strategic planning of urban and rural areas in a regional development context to secure overall proper planning and development as well as co-ordination of the RSES's and city/ county development plans in addition to local economic and community plans and local area plans and other local development.

The NPF is a long-term strategy for the next 20+ years which will set the groundwork for the spatial development in Ireland. The starting point for the framework is to lay the groundwork for a better quality of life for all and a basis for sustainable economic growth. It is intended that the NPF will both provide a strong focus to guide and inform regional and county/ city plans and set the framework for integrated investment decisions, aligned to the capital plan. The NPF development will address both opportunities and challenges to deliver policy directions across a broad spectrum.

1.1 LEGISLATIVE CONTEXT FOR APPROPRIATE ASSESSMENT

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 the Natura 2000 Network. These are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/EEC) as codified by Directive 2009/147/EC (hereafter referred to as the Birds Directive).

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 (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment (AA):

> *Any plan or project not directly connected with or necessary to the management of the [European] site but likely to have a significant effect thereon, either individually 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.*

Article 6(4) states:

> *If, in spite of a negative assessment of the implications for the [European] 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.*

The Habitats Directive has been transposed into Irish law by the Planning and Development Act 2000 (as amended) and the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended). In the context of the NPF, the governing legislation is principally European Communities (Birds and Natural Habitats) Regulations and specifically Article 27 which sets out the duties of public authorities (in this case the DHPLG) relating to nature conservation; and Article 42 which addresses AA. If screening for AA determines the likelihood for significant effects on a European Site(s), in view of its conservation objectives, then AA must be carried out for the plan, including the compilation of an NIS to inform the decision making.

1.2 PURPOSE OF THE AA PROCESS

The overall purpose of the AA process is to ensure that the NPF does not result in any adverse effects on the integrity of any European Sites in view of its conservation objectives. This NIS has been prepared in support of the AA process having regard for the legislative requirements of EU and national law as outlined previously.

The responsibility for carrying out the AA lies with the DHPLG. The NIS will inform the AA determination made by the DHPLG at the time of adoption of the NPF, and the AA decision will be published alongside the adopted NPF.

1.3 OVERLAP WITH THE STRATEGIC ENVIRONMENTAL ASSESSMENT OF THE NPF

A Strategic Environmental Assessment (SEA) of the NPF is being carried out concurrently with the preparation of the NIS. The purpose of the SEA is to evaluate at an early stage, the range of environmental consequences that may occur as a result of implementing the NPF and to give interested parties an opportunity to comment upon the perceived or actual environmental impacts of the proposal. There is a degree of overlap between the requirements of the SEA and AA and in accordance with best practice, an integrated process of data sharing has been carried out, such as sharing of baseline data and mapping of European Sites, sharing of potential ecological effects of the NPF on European Sites and clarification on more technical aspects of the NPF. These processes together have informed and shaped the development of the NPF.

It is also noted that there are issues relevant to the Habitats Directive that are not strictly related to AA, including Article 10 and 12 of the directive. In these cases, the issues have been brought forward to the biodiversity, flora and fauna section of the SEA and have been addressed in that context as part of the wider environmental assessments informing the NPF.

1.4 CONSULTATION

From the outset, consultation is a mandatory requirement in the SEA process and responses often have specific guidance recognising the AA process. In line with the SEA Directive, SEA Screening was undertaken by the DHPLG[1]. SEA Scoping then took place in the period in Q1 of 2017, with an initial draft SEA Scoping Report and an Issues Paper provided to the specific environmental authorities including the Development Applications Unit of the Department of Culture, Heritage and the Gaeltacht (DCHG)[2] in January 2017.

In recognition of the potential for transboundary effects with Northern Ireland, through coordinated spatial planning, the Northern Ireland Department of Agriculture, Environment and Rural Affairs (DAERA) with responsibility for SEA in Northern Ireland, was also consulted. A number of responses were received during the SEA Scoping phase including the following that had direct bearing upon the AA process. Summary details of these are presented in **Table 1.1**, while more detailed summaries of these submissions are included for reference in **Appendix A**.

Table 1.1 – Details of Consultation Responses with Relevance to AA Received by DHPLG

Consultee	Date	Summary of AA-specific Issues Raised
DCHG (Formerly DAHRRGA)	31st March 2017	▪ Unclear whether NPF is land use plan for the purposes of Part XAB of Planning and Development Act or falls under Regulation 42 of the Birds and Habitats Regulations ▪ List of guidance provided on AA and the preparation of an NIS (Appendix 2) ▪ General notes on preparation of NIS set out (Appendix 3) ▪ Sources of available ecological information set out ▪ Where NIS/NIR identifies plan-level mitigation to be reflected in final plan ▪ Recommended that cross-referencing to mitigation must be clear, consistent and unambiguous ▪ AA to take account of the NIS obligations to address scientific uncertainties/ issues raised by other parties (e.g. Baltz and others vs. An Bord Pleanála; case C-258/11)
DAFM	15th March 2017	▪ The majority of marine European Sites are located inshore – existing mitigation measures include site-specific temporal and spatial restrictions and specific requirements for fishing methods ▪ Marine Protected Areas, in addition to Natura 2000, will be designated under the MSFD and may be wider in purpose than Natura 2000 network ▪ To note that the relationship between SPAs and forestry is under review
NIEA (DAERA)	15th March 2017	▪ Notice provided of three newly proposed European and one new nationally designated sites

[1] Formerly the Department of Housing, Planning Community and Local Government (DHPCLG)
[2] Formerly the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (DAHRRGA)

A workshop on scoping issues and strategic alternatives was held in May 2017. The following other groups were represented on the day: EPA; DCCAE; NUI Maynooth (AIRO); UCD; Marine Institute; IBEC; Irish Farmers' Association; Gas Networks Ireland; Ervia Gasworks; Renewable Gas Forum; EirGrid; ESB; Fáilte Ireland; Irish Water; CCMA; Regional Authorities representative; SEAI; NTA; TII; Housing Agency; Southern Regional Assembly; North and Western Regional Assembly; and IDA.

In addition to this SEA statutory consultation, the SEA Scoping Report was also published alongside the DHPCLG's Ireland 2040: Issues and Choices Paper for public consultation which ran over the period February/ March 2017. During the public consultation approximately 3,360 submissions were received out of which 2,700 focused specifically on boundary issues in Kilkenny and the remaining submissions identified key issues including:

- Jobs, employment and industry;
- Services provision;
- Communities, population, people, youth and the elderly;
- Buildings, housing and homelessness;
- City and town development;
- Urban sprawl, rural and suburban issues;
- Regional inequality and development;
- Connectivity and communication;
- Health and disability;
- Recreation and tourism;
- Travellers and the travelling community;
- Crime and violence;
- Education, research and universities;
- Technology;
- Transport and traffic;
- Boundaries and borders;
- Resources and energy;
- Culture;
- Spatial policy and planning;
- Ireland in an international context;
- Legislation, regulation, government and taxes;
- Economics;
- Data and data sources;
- Green and Blue Infrastructure;
- Environment and sustainability;
- Waste and recycling;
- Agriculture, fisheries and food; and
- Flooding and flood defences.

All responses received as part of the consultation as well as comments received at the SEA Scoping workshop have been taken into account in the preparation of the NIS.

1.5 WORK COMPLETED TO DATE

Screening for AA of the NPF was compiled by RPS on behalf of the DHPCLG in August 2017. It was concluded that the plan should be subject to Stage 2 Appropriate Assessment. See **Chapter 5** for a summary of the screening stage, while the full Screening for Appropriate Assessment report is included in **Appendix F**.

2 BACKGROUND AND OVERVIEW OF THE NPF

2.1 BACKGROUND TO THE NATIONAL PLANNING FRAMEWORK (NPF)

In 2002, the Government launched the National Spatial Strategy (NSS) as a spatial plan to underpin balanced regional development. The plan was based on the identification of nine 'gateways' comprising twelve cities and towns and nine 'hubs' comprising eleven towns. Each was to be built up with critical scale and mass to provide a focus to influence wider regional development and provide a spatial framework to encourage development away from the Greater Dublin Area.

The NSS was important because it established spatial planning at a national level in Ireland, but was significantly undermined by a number of factors. These included:

- The National Development Plan 2007-2013 was aligned with the NSS but it was superseded by the economic downturn.
- €300m NSS 'Gateway Innovation Fund' launched in 2007, did not materialise; and
- Other criticisms have also been levelled at the NSS such as: it designated too many centres; created a perception of 'winners and losers'; wasn't adequately supported by the political system; relaxation of controls on new rural housing; lacked an economic dimension; and did not have statutory legislative backing.

Fifteen years on, some of the key ambitions of the NSS have not been realised with development-driven planning and sprawl continuing to be prevalent. The reality of the NSS has led to unanticipated consequences in terms of population growth and regional development with as much growth in settlements outside those that were designated as gateways and hubs. In most cases the rapid growth trajectory of the fastest growing towns in Ireland over the past twenty years had commenced prior to 2002, but publication of the NSS did not alter this. Many of these trends were identified in a review of the NSS undertaken by the DECLG in 2010[3] and it is now considered time to revisit national spatial planning based on lessons learned from the past.

2.2 REQUIREMENT FOR THE NPF

A successor to the NSS is needed to help coordinate spatial planning at all scales. The DHPCLG is therefore leading the preparation of the draft NPF on behalf of Government with input from other departments and agencies, which themselves are tasked with developing policy on long term and place-based public policy and investment. The purpose of this inclusive approach is to allow shared national development goals, including improved living standards, quality of life, prosperity, competitiveness and environmental sustainability, to be more broadly considered with the intention of providing greater clarity for the private sector and unlocking investment.

The framework is also intended to assist the achievement of more effective regional development and as such the regional dimension is critical to successful outcomes. The RSES which will support the delivery of the draft NPF by both feeding into and feeding off the national framework, removing the top down perception and replacing it with a shared responsibility and understanding.

[3] DECLG (October 2010) Implementing the National Spatial Strategy: 2010 Update and Outlook Harnessing Potential, Delivering Competitiveness, Achieving Sustainability.

2.3 PURPOSE AND SCOPE OF THE NPF

The purpose of the NPF is to provide a focal point for spatial plans throughout the planning hierarchy. It will provide a framework for the new Regional Spatial and Economic Strategies (RSES's) by the three new Regional Assemblies and the associated enhancement of the economic development focus of local authorities as per the Local Government Reform Act 2014. As the successor to the National Spatial Strategy, the NPF will co-ordinate the strategic planning of urban and rural areas in a regional development context to secure overall proper planning and development as well as co-ordination of the RSES's and city/county development plans in addition to local economic and community plans and local area plans and local development. **Figure 2.1** shows the proposed planning hierarchy going forward.[4]

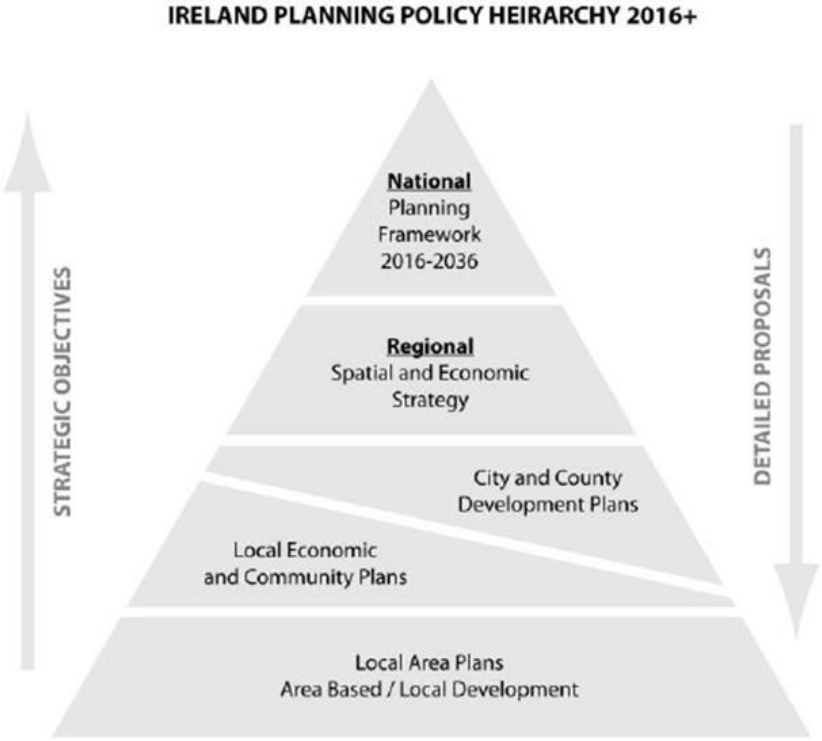


Figure 2.1 – Ireland's Planning Policy Hierarchy Post-2016

The NPF is a long-term strategy looking towards the horizon year of 2040. The geographic scope of the NPF is at a national scale, and also looks at cooperation and collaboration with Northern Ireland.

[4] DECLG (December 2015) Towards a National Planning Framework.

2.4 CONTENT OF THE NPF

The emerging policy areas to be considered as part of the NPF include the following broad headings:

Chapter Number	Content
Chapter 1: Ireland 2040: Our Plan and National Planning Framework	Introduction to the National Planning Framework titled 'Ireland 2040 – Our Plan', setting the scene and providing background to the need for the NPF as well as outlining the vision for the years ahead under the headings: opportunity; choice; quality; creativity; connectivity; collaboration; self-reliance; and commitment.
Chapter 2: A New Way Forward	This chapter sets out the issues and challenges to setting a new way forward in terms of coordinated planning and looks at how to target growth levels across the various regions and build accessible centres of scale.
Chapter 3: Making Stronger Urban Places	This chapter looks at Ireland's urban structure. It provides details on the importance of urban centres and how to make cities, towns and villages attractive places to live, work and visit through planning for urban growth.
Chapter 4: Planning for Diverse Rural Places	Provides details on the approach to conserving and enhancing rural areas, addressing rural decline and connectivity gaps, while planning for future growth and development of rural areas.
Chapter 5: People, Homes and Communities	Focuses on health, education, housing, local planning and leisure policies, with a focus on the requirements of an ageing population and quality of life through sustainable communities.
Chapter 6: Realising our Island and Marine Potential	Provides details on the growing maritime economy and the planning processes needed to effectively drive development and management with a focus on integrated land and maritime planning, maritime infrastructure, the coastal environment and planning for climate change, as well as offshore renewable energy.
Chapter 7: Working with Neighbours	Focusses on cooperation with our nearest neighbours, and Northern Ireland in particular, to grow key economic corridors, coordination of infrastructure investment and responsible management of the shared environment.
Chapter 8: Realising Our Sustainable Future	Focusses on the transition to a low-carbon, climate-resilient and environmentally sustainable economy by 2050. Outlines that the manner in which we plan is important for the sustainability of our environment.
Chapter 9: Investing in Ireland 2040 – Implementation	Sets out the implementation framework around the pillars of governance and investment. The framework will be guided by targeting national strategic outcomes across ten key areas.
Chapter 10: Assessing Environmental Impact	Outlines how environmental considerations have been taken into account in the plan as well as setting out the need for relevant environmental assessments for plans, projects and activities arising from the plan. Outlines the strategic alternatives considered for the plan.
Appendix 1	*A Methodology for a Tiered Approach to Land Zoning*
Appendix 2	*A Methodology for the Prioritisation of Development Lands*

3 ASSESSMENT METHODOLOGY

3.1 GUIDANCE DOCUMENTS ON AA

The AA requirements of Article 6 of the Habitats Directive follow a sequential approach as outlined in the following legislation, guidance documents and Departmental Circulars, namely:

European and National Legislation

- Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (also known as the 'Habitats Directive');
- Council Directive 2009/147/EC on the conservation of wild birds, codified version, (also known as the 'Birds Directive');
- European Communities (Birds and Natural Habitats) Regulations 2011 to 2015; and
- Planning and Development Act 2000 to 2014.

Guidance

- Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. DEHLG (2009, revised 10/02/10);
- 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 (2001);
- Communication from the Commission on the Precautionary Principle. European Commission (2000b);
- EC study on evaluating and improving permitting procedures related to Natura 2000 requirements under Article 6.3 of the Habitats Directive 92/43/EEC. European Commission (2013);
- 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. European Commission (2007);
- Managing Natura 2000 sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC[5]. European Commission (2000a); and
- Marine Natura Impacts Statements in Irish Special Areas of Conservation. A working Document. DAHG (2012).

Departmental/NPWS Circulars

- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPWS 1/10 and PSSP 2/10. (DEHLG, 2010);
- Appropriate Assessment of Land Use Plans. Circular Letter SEA 1/08 & NPWS 1/08;
- Water Services Investment and Rural Water Programmes – Protection of Natural Heritage and National Monuments. Circular L8/08;

[5] The Commission has notified its intent to revise this guidance and a draft revised document was published in April 2015. It would appear that this has not been finalised to date, and no revised guidance document is available on the Commissions official website as of February 2017.

- Guidance on Compliance with Regulation 23 of the Habitats Directive. Circular Letter NPWS 2/07;
- Compliance Conditions in respect of Developments requiring (1) Environmental Impact Assessment (EIA); or (2) having potential impacts on Natura 2000 sites. Circular Letter PD 2/07 and NPWS 1/07.

3.2 GUIDING PRINCIPLES AND CASE LAW

Over time legal interpretation has been sought on the practical application of the legislation concerning AA as some terminology has been found to be unclear. European and National case law has clarified a number of issues and some aspects of the published guidance documents have been superseded by case law. Case law has been considered in the preparation of the NIS of the NPF.

3.3 STAGES OF APPROPRIATE ASSESSMENT

The AA process progresses through four stages. If at any stage in the process it is determined that there will be no adverse effect on the integrity of a European Site in view of the sites conservation objectives, the process is effectively completed. The four stages are as follows:

- Stage 1 – Screening of the proposed plan or project for AA;
- Stage 2 – An AA of the proposed plan or project;
- Stage 3 – Assessment of alternative solutions; and
- Stage 4 – Imperative Reasons of Overriding Public Interest (IROPI)/ Derogation.

Stage 1: Screening for AA

The aim of screening is to assess firstly if the plan or project is directly connected with or necessary to the management of European Site(s); or in view of best scientific knowledge, if the plan or project, individually or in combination with other plans or projects, is likely to have a significant effect on a European site. This is done by examining the proposed plan or project and the conservation objectives of any European Sites that might potentially be affected. If screening determines that there is potential for significant effects or there is uncertainty regarding the significance of effects then it will be recommended that the plan is brought forward to the next stage of the AA process. The DHPCLG recorded an AA Screening Determination in August 2017. It concluded that the NPF would proceed to Stage 2 AA.

Stage 2: Appropriate Assessment

The aim of Stage 2 of the AA process is to identify any adverse impacts that the plan or project might have on the integrity of relevant European Sites. As part of the assessment, of key consideration are 'in-combination' effects with other plans or projects. Where adverse impacts are identified, mitigation measures can be proposed that would avoid, reduce or remedy any such negative impacts and the plan or project should then be amended accordingly, thereby avoiding the need to progress to Stage 3. As part of this stage an NIS is prepared to support decision making. This document is the NIS for the NPF.

Stage 3: Alternative Solutions

If it is not possible during Stage 2 of the AA process to conclude that there will be no adverse effects on site integrity, Stage 3 of the process must be undertaken which is to objectively assess whether alternative solutions exist by which the objectives of the plan or project can be achieved. Explicitly, this means alternative solutions that do not have adverse impacts on the integrity of a European Site. It should also be noted that EU guidance on this stage of the process states that, '*other assessment criteria, such as economic criteria, cannot be seen as overruling ecological criteria*' (EC, 2001). In other words, if alternative solutions exist that do not have adverse impacts on European Sites; they should be adopted regardless of economic considerations. This stage of the AA process should result in the identification of the least damaging options for the plan or project.

Stage 4: Imperative Reasons of Overriding Public Interest (IROPI)

This stage of the AA process is undertaken when it has been determined that a plan or project will have adverse effects on the integrity of a European Site, but that no alternatives exist. At this stage of the AA process, it is the characteristics of the plan or project itself that will determine whether or not the competent authority can allow it to progress. This is the determination of 'over-riding public interest'.

It is important to note that in the case of European Sites that include in their qualifying features 'priority' habitats or species, as defined in Annex I and II of the Directive, the demonstration of 'over-riding public interest' is not sufficient and it must be demonstrated that the plan or project is necessary for 'human health or public safety considerations'. Where plans or projects meet these criteria, they can be allowed, provided adequate compensatory measures are proposed. Stage 4 of the process defines and describes these compensation measures.

3.4 INFORMATION SOURCES CONSULTED

The following general sources of information have been consulted for background environmental information.

- Information provided by DHPCLG on the NPF;
- Department of Housing, Planning, Community and Local Government – online land use mapping www.myplan.ie/en/index.html;
- GeoHive online mapping http://map.geohive.ie/mapviewer.html;
- Ordnance Survey of Ireland – online mapping and aerial photography www.osi.ie;
- National Parks and Wildlife Service – online European Site information www.npws.ie;
- Northern Ireland Environment Agency – online European Site information www.daera-ni.gov.uk;
- National Parks and Wildlife Service – information on the status of EU protected habitats in Ireland (NPWS, 2013a & 2013b);
- Ireland's Article 12 submission to the EU Commission on the *Status and Trends of Bird Species (2008-2012)*;
- Information on the Conservation Status of Birds in Ireland (Colhoun & Cummins, 2013);
- Environmental Protection Agency (EPA) – ENVision maps www.epa.ie;
- Information on River Basin Districts – www.wfdireland.ie;
- Geological Survey of Ireland (GSI) – geology, soils and hydrogeology www.gsi.ie;

- *Format for a Prioritised Action Framework (PAF) for Natura 2000* (DAHG, 2014) www.npws.ie/sites/default/files/general/PAF-IE-2014.pdf; and
- *Actions for Biodiversity 2011-2016*: *Irelands National Biodiversity Plan* (DAHG, 2011).[6]

3.5 IMPACT PREDICTION

The methodology for the assessment of impacts is derived from the *Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites* (EC, 2001). When describing changes/activities and impacts on ecosystem structure and function, the types of impacts that are commonly presented include:

- Direct and indirect effects;
- Short and long-term effects;
- Construction, operational and decommissioning effects; and
- Isolated, interactive and cumulative effects.

A "source-pathway-receptor" approach has been applied for this assessment. The ***source*** relates to the implementation measures outlined in the NPF which have the potential to adversely impact European Sites, e.g. infrastructural developments such as road or rail lines. The ***pathways*** relate to how the NPF implementation measures can impact European Sites, e.g. changes in land use, habitat loss/ fragmentation, disturbance to species, impacts to water quality. The ***receptor*** is the Natura 2000 Network, potentially including those transboundary sites for which there is a pathway of connectivity as a result of the implementation of the NPF.

[6] Ireland's third National Biodiversity Action Plan 2017 – 2021 is currently undergoing consultation. The draft plan can be found at https://www.npws.ie/sites/default/files/files/Draft%20NBAP%202017-2021(1).pdf (as at 23/01/2017).

4 OVERVIEW OF THE RECEIVING ENVIRONMENT

Ireland has obligations under EU law to protect and conserve biodiversity. This relates to habitats and species both within and outside designated sites. Nationally, Ireland has developed a National Biodiversity Plan (DAHG, 2011) to address issues and halt the loss of biodiversity, in line with international commitments. The overall target for Ireland's National Biodiversity Plan is that *biodiversity loss and degradation are reduced by 2016 and progress is made towards substantial recovery by 2020*. This follows on from the European Commission EU Biodiversity Strategy to 2020 which has a headline target *to halt the loss of biodiversity and ecosystem services by 2020, to restore ecosystems in so far as is feasible and to step up the EU contribution to averting global biodiversity loss*. This implements EU commitments under the Convention on Biological Diversity (1992).

4.1 IDENTIFICATION OF EUROPEAN SITES

Current guidance on the zone of influence (ZoI) to be considered during the AA process states the following: *"A distance of 15km is currently recommended in the case of plans, and derives from UK guidance (Scott Wilson et al., 2006). For projects, the distance could be much less than 15km, and in some cases less than 100m, but this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in-combination effects".*

The NPF is a strategic plan to be implemented at a national level. The NPF, at present, details geographic specificity for cities and regionally-important large towns, however other measures could be implemented anywhere within the Republic of Ireland and involve cooperation with Northern Ireland.

It is acknowledged that Qualifying Interest (QIs)/ Special Conservation Interests (SCIs) of European Sites have different sensitivities and therefore a set distance of 15km is not appropriate to assess the potential effects on all QIs/ SCIs that may be impacted by the objectives of the NPF. For example QI fish species could be affected by changes to water quality at more than 15km distance, SCI bird species might be most significantly affected by disturbance within 1km of their habitat. Therefore, the impact assessment considers the sensitivities to European Sites in light of their generic Conservation Objectives (COs, which encompass the spirit of the site specific COs in the context of maintaining and restoring favourable conservation condition) and therefore sensitivities of European Sites outside of 15km are considered, including all European Sites in Northern Ireland. As the objectives give rise to more concrete plans and projects down through the planning hierarchy, the site specific COs will be more appropriate to present. **Figure 4.1** outlines the role of AA through the planning hierarchy as it relates to plans and projects arising from the NPF.

The Natura 2000 Network of sites is designated owing to its ecological importance in a European context. Sites within the Natura 2000 Network are referred to as European Sites and comprise SACs and SPAs. SACs are concerned with the protection of specific QIs and SCIs and the legal basis for their designation is the EU Habitats Directive. In the Republic of Ireland, 433 SACs have been designated (in addition to 6 offshore SACs) covering 59 habitat types recognised in Annex I of the Directive, with 16 habitats designated as "priority" habitats owing to their ecological vulnerability. In addition, the same Directive recognises 26 Annex II species. The habitats covered extend across the country and cover a range of ecological features from coastal to grassland to woodland. Priority habitats include active bogs, turloughs and fixed dunes. Annex II species include bats, otter (*Lutra lutra*), freshwater pearl mussel (*Margaritifera margaritifera*), among others. Through the Birds

Directive, SPAs designated for the protection of endangered species of wild birds including listed rare and vulnerable species, regularly occurring migratory species as well as wetland habitats that support such species. Currently there are 165 SPAs designated within the Republic of Ireland.

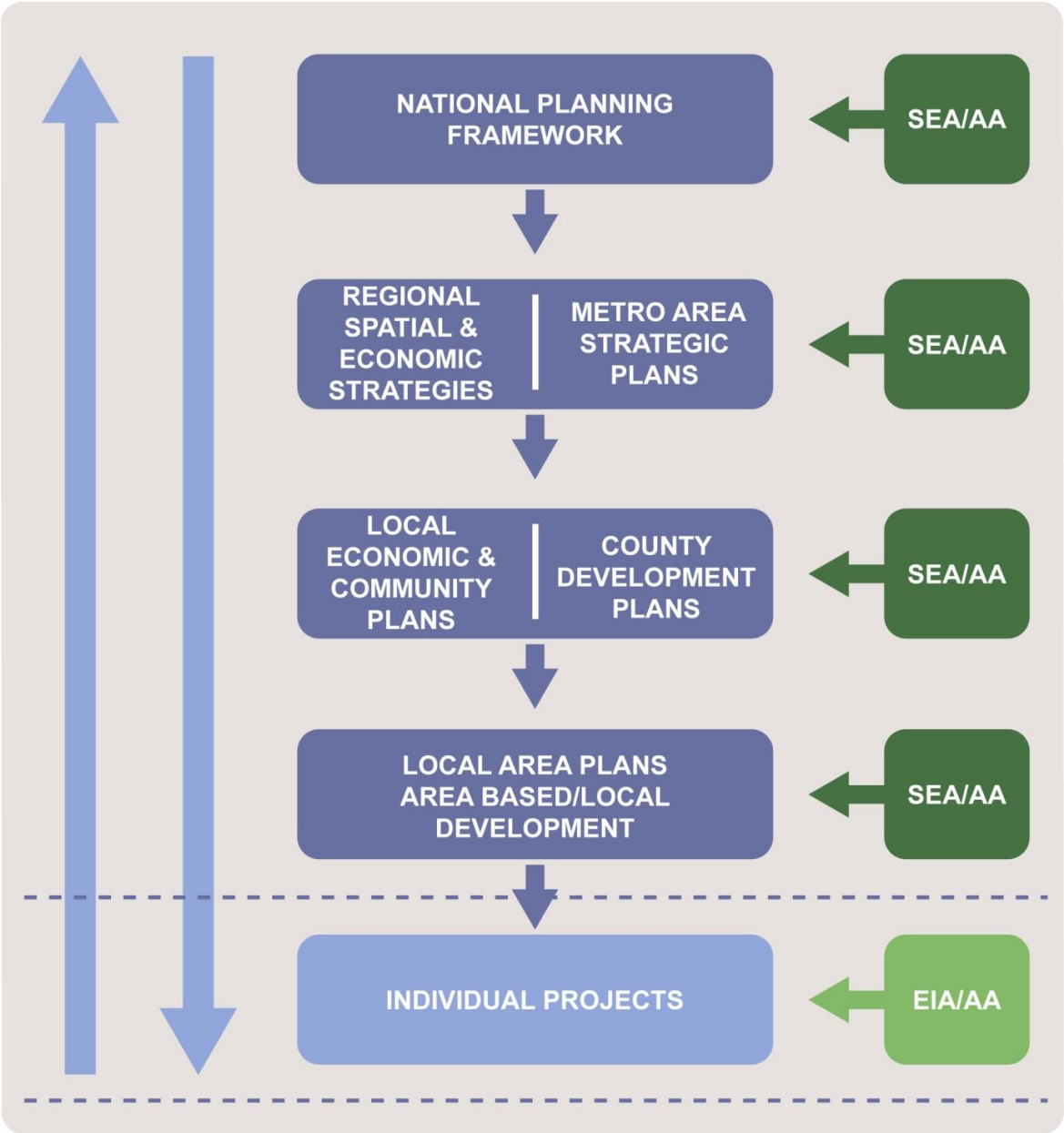


Figure 4.1 – AA within the Planning Hierarchy of the NPF

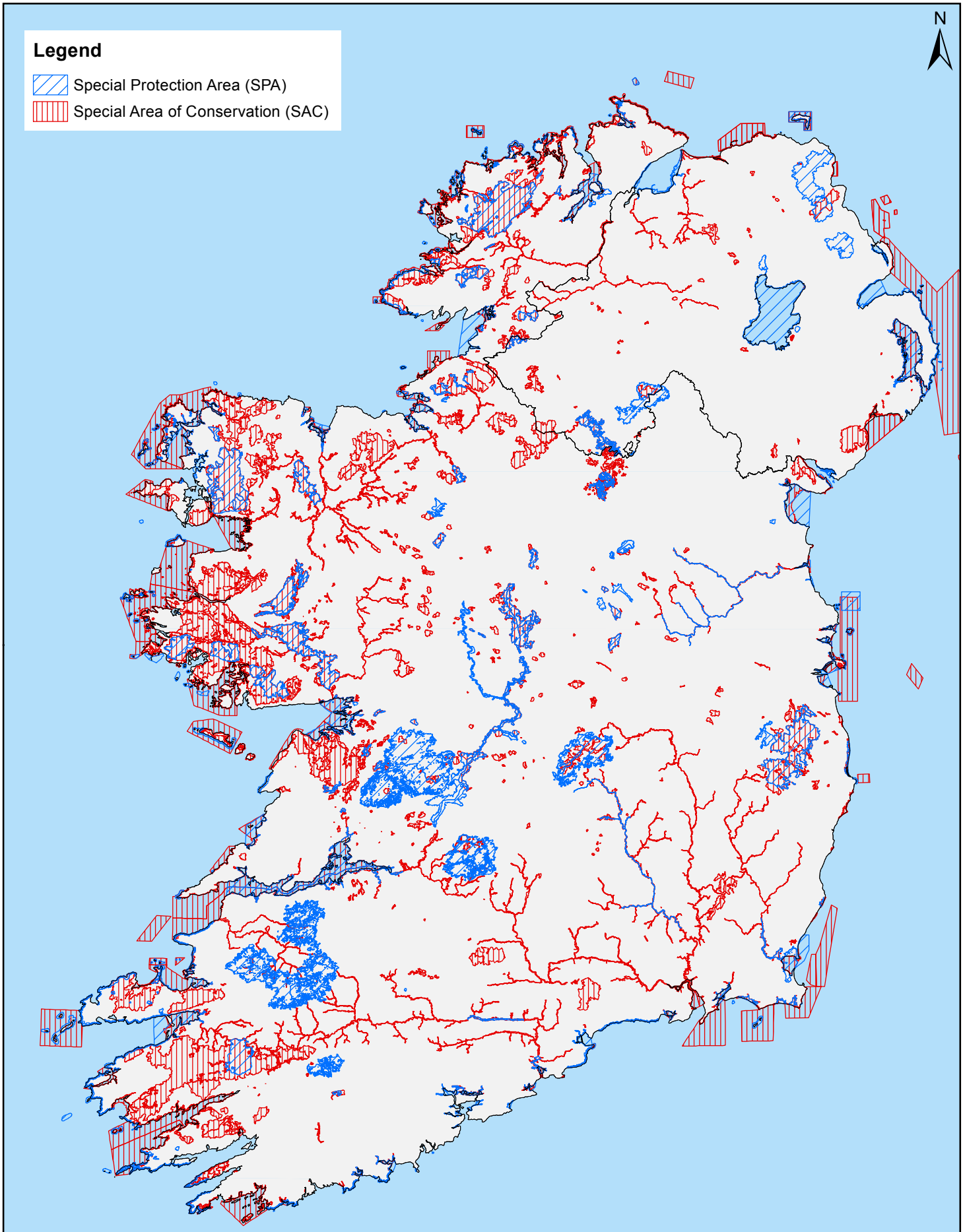
Table 4.1 provides a summary breakdown of the European Sites both in Ireland and those transboundary sites in Northern Ireland that have been considered in this NIS. **Figure 4.2** shows the distribution of the SACs and SPAs listed in **Table 4.1** (with the exception of the newly-proposed East Coast SPA and Carlingford Lough (Extension) SPA in Northern Ireland for which spatial data did not exist at the time of writing). A full listing of the European Sites is included in **Appendix B – E**.

Table 4.1 – European Sites within the Zone of Influence of the NPF

Republic of Ireland*	Northern Ireland**
433 SACs + 6 offshore SACs	59 SACs
165 SPAs	18 SPAs

**NPWS data revision as of August 2017.*

***NIEA/ JNCC data revision as of March 2017 (includes newly proposed/candidate sites).*



Data source: National Parks and Wildlife Service (npws.ie, August 2017); Northern Ireland Environment Agency (daera-ni.gov.uk, March 2017),

Title

Figure 4.2 - European Sites

Project

National Planning Framework

Client

Department of Housing, Planning and Local Government

RPS

West Pier Business Campus,
Dun Laoghaire,
Co Dublin, Ireland.

Tel: +353 (0) 1 4882900
Email: ireland@rpsgroup.com
Web Page: rpsgroup.com/ireland

Issue Details

Drawn By:	NO'N	**Project No.**	MDR1273
Checked By:	AC	**File Ref:**	MDR1273Arc0001F01
Approved By:	AG		
Scale:	1:1,950,000 @ A4	**Projection:**	ITM (IRENET95)
Date:	25/09/2017		

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4.2 CONSERVATION OBJECTIVES

Article 6(3) of the Habitats Directive states that:

> *Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications of the site in view of the site's* ***conservation objectives****.*

QIs/ SCIs are annexed habitats and annexed species of community interest for which an SAC or SPA has been designated. The Conservation Objectives (COs) for European Sites are set out to ensure that the QIs/ SCIs of that site are maintained or restored to a favourable conservation condition/ conservation status. Maintenance of favourable conservation condition of habitats and species at a site level in turn contributes to maintaining or restoring favourable conservation status of habitats and species at a national level and ultimately at the Natura 2000 Network level.

In Ireland 'generic' COs have been prepared for all European Sites, while 'site specific' COs have been prepared for a number of individual Sites to take account of the specific QIs/ SCIs of that Site. Both the generic and site specific COs aim to define favourable conservation condition for habitats and species at the site level.

Generic COs which have been developed by NPWS encompass the spirit of site specific COs in the context of maintaining and restoring favourable conservation condition as follows:

For SACs:

- 'To maintain or restore the favourable conservation condition of the Annex I habitats and/or Annex II species for which the SAC has been selected'.

For SPAs:

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

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".

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.

A full listing of the COs and QIs/ SCIs that each European Site is designated for, as well as the attributes and targets to maintain or restore the QIs/ SCIs to a favourable conservation condition are available from the NPWS website www.npws.ie.

4.3 CONSERVATION STATUS OF EU PROTECTED HABITATS AND SPECIES

In 2007 and again in 2013 the National Parks and Wildlife Service (NPWS) published a report detailing the conservation status in Ireland of habitats and species listed in the EU Habitats Directive (92/43/EEC), often referred to as the Article 17 Report.[7] Under the Habitats Directive, each Member State is obliged to undertake surveillance of the conservation status of the natural habitats and species in the Annexes and under Article 17, to report to the European Commission every six years on their status and on the implementation of the measures taken under the Directive. **Appendix G** sets out a summary of the conservation status of each habitat and species from both 2007 and 2013.

In the Article 17 Report for 2013, 9% of habitats were assessed as "*favourable"*, 50% as "*inadequate*" and 41% as "*bad*". Among the key findings were:

- Some of the marine habitats are considered to be improving, and to have better prospects, due in part to implementation of other EU environmental Directives;
- The status of raised bogs in Ireland is "*bad*"; and the trend is for an ongoing decline as restoration is necessary to cause improvement, notwithstanding the cessation of cutting on SAC bogs;
- Blanket bog is also assessed as "*bad*"; the report notes that, as one of the main impacts on this habitat is grazing, an improving trend might be expected due to the implementation of Commonage Framework Plans. However, this improvement appears to be offset and even exceeded by on-going deleterious effects such as peat cutting, erosion, drainage and burning;
- Although some of our woodlands are rated as "*bad*" because they are patchy and fragmented, improvements have been noted due to afforestation and the planting of native species, removal of alien species and control of overgrazing; and
- Losses of limestone pavement has been recorded outside the SAC network, however the BurrenLIFE and Burren Farming for Conservation Programme have significantly improved the quality of pavement and its associated habitats.

From the 2013 report, 52% of species were assessed as "*favourable*", 20% as "*inadequate*", 12% as "*bad*" and 16% as "*unknown*" or considered to be vagrant species. Among the key findings are:

- Otter has also been assessed as "*favourable*" with evidence of an expanding range;
- Salmon (*Salmo salar*) is showing signs of improvement and the Killarney shad (*Alosa killarnensis*) is assessed as "*favourable*", but some other fish remain at "*bad*" status; and
- Freshwater pearl mussel is "*bad*" and declining.

Similarly, the requirements for reporting under Article 12 of the Birds Directive (2009/147/EC) are every 6 years. Ireland's Article 12 submission to the EU Commission on the *Status and trends of bird species (2008-2012)*[8] covers 196 species which includes breeding, wintering and passage species.

[7] The Status of EU Protected Habitats and Species in Ireland, NPWS 2007 (Vol 1-3) and 2013 (Vol 1 -3)
[8] http://ec.europa.eu/environment/nature/knowledge/rep_birds/index_en.htm (Accessed September 2016)

The report details that some species have had significant increases in population over the long term, including raven (*Corvus corax*), collared dove (*Streptopelia decaocto*), buzzard (*Buteo buteo*) and blackcap (*Sylvia atricapilla*). However, other species have undergone significant declines in their long-term breeding population trend: corncrake (*Crex crex*) (85%), curlew (*Numenius arquata*) (98%), lapwing (*Vanellus vanellus*) (88%) and redshank (*Tringa totanus*) (88%). The hen harrier (*Circus cyaneus*) shows a long-term population trend decrease of 27%. The results confirm that there is a need for measures to halt the declines noted above, most of which are due largely to changes in farming practices and intensity, and also the increase of activity in extensively farmed uplands through forests and wind farm construction. **Appendix G** sets out a summary of the conservation status of each bird species from both 2007 and 2013.

4.4 EXISTING THREATS AND PRESSURES TO EU PROTECTED HABITATS AND SPECIES

Under Article 17 of the Habitats Directive, Member States are obliged to identify threats and pressures to QIs/ SCIs using a standard set of criteria. A threat is defined as an "*Activity expected to have an impact on a species/habitat type in the future*" and a pressure is defined as an "*Activity impacting a species/habitat type during the reporting cycle*".[9]

Threats and pressures considered to be most relevantly linked either directly or indirectly to the NPF were extracted from the full list of threats and pressures.[10] The headline categories considered relevant to the NPF are presented below, with a more detailed breakdown of the threats and pressures under each headline category presented in **Appendix H**.

- Agriculture;
- Forestry;
- Mining, quarrying and energy production;
- Transportation and service infrastructure;
- Urbanisation, residential and commercial development;
- Human intrusions and disturbances;
- Pollution;
- Invasive, other problematic species and genes;
- Natural system modifications;
- Geological events, natural catastrophes;
- Climate change;
- Threats and pressures from outside the Member State.

The recently published "State of the Environment Report" (EPA, 2016) identified a number of future challenges for national biodiversity, many of which are directly relevant to the NPF including: habitat loss due to land use changes as the economy improves, climate change and associated potential change in the range of some habitats/ species and the expansion of invasive species. The report also identified the need to develop biodiversity initiatives to engage society and develop a cohesive approach between regulatory bodies so that biodiversity is a key element in economic and

[9] Reference Portal for reporting under the Article 17 of the Habitats Directive *Explanatory Notes & Guidelines for the period 2007-2012* http://bd.eionet.europa.eu/activities/Reporting/Article_17/reference_portal

[10] Accessed on the Reference Portal for reporting under the Article 17 of the Habitats Directive http://bd.eionet.europa.eu/activities/Reporting/Article_17/reference_portal

development decisions. The need for robust scientifically-based monitoring systems and more detailed mapping are considered vital in protecting nature and biodiversity. An updated draft National Biodiversity Action Plan 2017-2021 was published in May 2017.

4.5 RELEVANT BIODIVERSITY POLICY

Ireland's Prioritised Action Framework was published by the DAHG in November 2014 and this was based upon the *EU Biodiversity Strategy to 2020* (2011). It identified a range of actions needed to help improve the status of Ireland's habitats and species. The key priorities outlined in the framework are outlined below:

- Restoration of raised bogs;
- Better protection for blanket bogs and Ireland's uplands generally;
- Better management of Ireland's dunes and machair systems;
- Better protection for turloughs;
- Measures to protect Ireland's remaining freshwater pearl mussels; and
- New measures to protect birds in decline such as the hen harrier, corncrake and waders.

In addition there is a growing awareness and recognition of importance of ecosystem services supported at policy level. Target 2 of the Convention on Biological Diversity (CBD) Strategic Plan 2011-2020 requires that: "*By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems*". This is mirrored in both the EU Biodiversity Strategy to 2020 (Target 5) and Ireland's National Actions for Biodiversity 2011-2016 (Target 3).

5 STAGE 1 SCREENING FOR APPROPRIATE ASSESSMENT

In order to comply with the requirements of Article 6(3) of the EU Habitats Directive, the process of Screening for AA was undertaken at an early stage in the drafting of the NPF. The AA Screening assessed the potential for the NPF to result in likely significant effects on any European Sites within the Natura 2000 network, either alone or in combination with other plans and projects.

5.1 POTENTIAL FOR LIKELY SIGNIFICANT EFFECTS

The AA Screening was undertaken before the detailed policy objectives were developed and therefore the potential likely significant effects were largely unknown. Given the range of potential policy objectives that could have been utilised in the NPF once drafted, e.g. potentially including construction of infrastructure, land use changes or behavioural changes, the AA Screening was undertaken in a strategic manner with cognisance of the precautionary principle. It was concluded that the potential for likely significant effects could not be ruled out given the uncertainty as to what the policy objectives might include.

5.2 SCREENING FOR APPROPRIATE ASSESSMENT CONCLUSION

On completion of the AA Screening, it was concluded that the potential for likely significant effects on European Sites could not be ruled out and the NPF would undergo AA. The AA process then proceeded to the preparation of a NIS to inform the AA to be undertaken by DHPLG.

6 STAGE 2 APPROPRIATE ASSESSMENT

6.1 INTRODUCTION

The assessment considers the impacts[11] that the NPF will have on the integrity of the European Sites, with respect to the conservation objectives of the sites and to their structure and function. EC guidance (MN2000) states that the integrity of a site involves its ecological functions and the decision as to whether it is adversely affected should focus on, and be limited to, the site's conservation objectives.

This section considers and sets out the elements of the NPF that have potential to give rise to likely significant effects on European Sites. The potential effects have been assessed in the absence of any mitigation measures, and taking account of the precautionary principle. It is noted that the development of the NPF has benefited from an integration of SEA/ AA expertise to highlight and address concerns on an ongoing basis as the framework has evolved. This is in line with the Habitats Directive which promotes a hierarchy beginning with avoidance before considering mitigation and compensatory measures. Through iterative discussion during the preparation of the NPF, avoidance of impacts as a result of implementing the NPF has therefore been to the forefront of discussions with the DHPLG.

It is noted that the NPF is a strategic framework document which will be supported a robust tiering of regional and local level plans within the overall proposed hierarchy. As detail is developed down through the hierarchy, further opportunity for focussed assessment will be required to inform decision making at a granularity which cannot be undertaken at the national scale.

6.2 APPROACH TO ASSESSMENT

In line with the relevant guidance, this stage of the Appropriate Assessment consists of three main steps:

- **Impact Prediction** - where the likely impacts of the NPF are examined. A source-pathway-receptor model has been used to assess potential for impact;
- **Assessment of Effects** - where the effects of the NPF are assessed as to whether they have any adverse effects on the integrity of European Sites as defined by conservation objectives; and
- **Mitigation Measures** - where mitigation measures are identified to ameliorate any adverse effects on the integrity of any European Site.

6.3 IMPACT PREDICTION

As noted in **Chapter 3**, in considering the potential for impacts from implementation of the NPF, a "source–pathway–receptor" approach has been applied. The ***source*** relates to the National Policy Objectives outlined in the NPF which have the potential to adversely impact European Sites. The ***pathways*** relate to how the NPF objectives can impact European Sites e.g. changes in land use, habitat loss/fragmentation, disturbance to species or impacts to water quality. The ***receptor*** is the

[11] Impacts considered include direct, indirect, short term, long term, temporary, permanent and cumulative.

Natura 2000 Network, potentially including those transboundary sites for which there is a pathway of connectivity as a result of the implementation of the NPF.

6.3.1 Context for Impact Prediction

The development and implementation of the NPF itself is considered to be largely positive in terms of its impacts on the environment as it sets out a strategy for the sustainable development of places in Ireland and how that can be achieved. However, the framework has potential to impact on European Sites given the nature of the policy objectives it presents. As the framework is focussed at a national and strategic level the potential is generally not for direct or location impacts but rather indirect impacts arising from the potential for development arising out of the various national policy objectives. Section 6.3.2 identifies the main potential ecological impacts that could arise from the implementation of the NPF.

6.3.2 Impact Identification

A summary of the main potential ecological impacts that could arise from the implementation of the NPF are presented below and are used in the impact prediction.

- **Habitat loss, destruction, fragmentation or degradation:** Habitat loss or destruction is caused where there is complete removal of a habitat type, for example arising from the development of new infrastructure or via change of land use which alters the existing habitat. Habitat fragmentation results from the incremental loss of small patches of habitat within a larger landscape. Fragmentation can also result from impediments to the natural movements of species. This is relevant where important corridors for movement or migration are disrupted. Habitat degradation results in the diminishment of habitat quality and a loss of important habitat functions. It can arise from the introduction of invasive species, toxic contamination from spillages or physical alteration (e.g. arising from poor management during construction and subsequent operation of new infrastructure). Increases in population in the three regions whether focussed at metropolitan areas, large or small towns, all has the potential for habitat loss or fragmentation. While the NPF has a specific focus on infill and brownfield development there is nonetheless potential for greenfield development to ensure the population increases proposed can be accommodated. There is also the potential for increased disturbance from new populations or increased densities in sensitive locations.
- **Disturbance to habitats/ species**: Disturbance to habitats/species within a European Site is likely to increase where there is an increase in activity or noise levels from developments within or adjacent to those sites. It is particularly important that known sensitive areas, such as those supporting breeding birds, otter, salmonids and others are taken into consideration during the design stage of any development prior to approval. As the NPF deals with strategic infrastructure including roads, rail, airports and ports this is an important consideration.
- **Species mortality:** Species mortality can result from direct mortality of species, for example as a result of collision. Species mortality can also occur via direct alteration to breeding/resting habitat during construction. In addition, species mortality can occur when conditions/habitat underpinning survival of the species are altered e.g. water quality, ecological corridors removed, and these are discussed under the other relevant headings in this section.
- **Alterations to water quality and/ or water movement:** This is relevant where there could be an impact on the hydrological/hydrogeological connection to a European Site or on water quality. This could be via point source or diffuse pollution from developments or via developments that alter surface or subsurface water flow. In terms of potential for alteration of water quality, the

impact(s) may be *in-situ* or *ex-situ* (i.e. downstream and outside the immediate area) and can include the release of suspended solids, increased nutrient run-off from land such as forestry or agricultural land, increased acidification/eutrophication and spillages during construction activities. Alterations to subsurface water flow or groundwater can result in impact to groundwater dependent habitats such as petrifying springs and fens.

- **Alterations to air quality:** Burning of fossil fuels, whether for transport or energy generation, results in emissions to air. The key effects on European Sites associated with fuel combustion are; nitrogen/sulphur deposition leading to acidification and eutrophication of soils/water, deposition of particulate matter leading to vegetation damage and increased atmospheric CO and CO_2 accelerating climate change.
- **Introduction or spread of invasive species:** Invasive species can have serious negative consequences on their environment and cause damage to native ecosystem functions and service e.g. by outcompeting native species. This would be of particular concern for any works within European Sites, but also any works with connectivity to a European Site e.g. hydrological connectivity. Machinery and personnel can act as vectors to inadvertently cause the introduction or spread of invasive species, in particular invasive plant species. Importation of materials e.g. soil contaminated with invasive species, can also result in the introduction/spread if invasive species. In addition, climate change could result in range expansion for some invasive species, which could potentially be further facilitated through the range contraction of native species.
- **In-combination impacts**: A series of individually modest impacts may, 'in-combination' produce a significant impact. The underlying intention of this in-combination provision is to take account of combined impacts, and these will often only occur over time. In that context, one must consider plans or projects which are completed; in preparation; or approved but uncompleted. Where there is a series of small, but potentially adverse impacts occurring within or adjacent to a European Site, consideration should be made as to their combined impacts.

6.3.3 Impact Prediction

In line with the methodology for impact prediction outlined in **Section 3**, the main ecological impacts that could arise from the mitigation measures outlined in the NPF are summarised in **Table 6.1** and discussed in the following sections. In-combination impacts are assessed separately in **Section 6.6**. It is acknowledged that coordinated spatial planning may have a positive impact on biodiversity. This is discussed under **Section 6.4.1**.

Table 6.1 – Main Negative Ecological Impacts Associated with the Mitigation Measures Outlined in the NPF

Impact Source	Impact Identification	Impact Prediction
Land Use Changes	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Disturbance to habitats/species; ▪ Species mortality; ▪ Alterations to water quality and/or water movement; ▪ Alterations to air quality; and ▪ Introduction or spread of invasive species.	▪ Land use changes as a result of construction and operation of infrastructure/developments e.g. construction of cycleways and greenways. Direct and permanent in nature with potential cumulative impacts. ▪ Land use changes through intensification changes e.g. increased population densities, shifts in land use patterns due to changing economic realities. Indirect and long term in nature. ▪ Barriers to movement of species and/or collision of species as a result of land-use change e.g. expanding city hinterlands, conversion of grasslands and uplands to forests or more urban fabric, renewables infrastructure creating barriers to movement. Indirect and long-term in nature. ▪ Disturbance to habitats/species as a result of land use change e.g. increased recreation and human disturbance. Indirect and medium-term in nature. ▪ Land use changes/changes in land use intensification leading to resultant impacts on water quality e.g. sedimentation and eutrophication as a result of run-off from sites cleared for development. Indirect and permanent in nature. ▪ Alterations to water quality and/or water movement as a result of urban intensification e.g. sediment and nutrient run-off to nearby watercourses and alterations to drainage patterns. Indirect and long-term in nature. ▪ Land use changes altering groundwater movement e.g. construction of infrastructure altering groundwater movement to groundwater dependent habitats. Indirect and long-term in nature. ▪ Alterations to air quality as a result of increased electricity generation dependent on the method utilised, e.g. peat extraction resulting in carbon emissions from degraded peatlands, and biomass combustion leading to emissions to air. Indirect and long-term in nature. ▪ Loss of habitat and/or species or reduction in habitat quality as a result of introduction or spread of invasive species during land use conversion and dependent on nature of new land type e.g. replacement of natural grasslands with monoculture crops for biomass production. Indirect and long-term in nature.
Infrastructure Construction	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Disturbance to habitats/species;	▪ Land use changes as a result of construction and operation of infrastructure/developments e.g. loss of habitat for construction of cycleways and greenways, roads and renewable energy infrastructure. Direct and long

Impact Source	Impact Identification	Impact Prediction
	▪ Species mortality; ▪ Alterations to water quality and/or water movement; and ▪ Introduction or spread of invasive species.	term in nature. ▪ Degradation of habitats during construction, upgrade and operation of infrastructure/developments due to disturbance from machinery or trampling. Direct and short-term in nature. ▪ Species habitat loss or destruction and species mortality as a result of construction/upgrade works. Direct and long-term in nature. ▪ Disturbance to habitats/species during operation e.g. ports, roads, rail, increased human presence. Indirect and long-term in nature. ▪ Barriers to movement of species or collision of species as a result of construction and habitat loss e.g. renewable energy infrastructure such as wind farms. Direct and long-term in nature. ▪ Loss of habitat and/or species or reduction in habitat quality as a result of introduction or spread of invasive species via construction, upgrade and/or operational works. Indirect and long-term in nature.
Land Regeneration	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Disturbance to habitats/species; ▪ Species mortality; ▪ Alterations to water quality and/or water movement; ▪ Release of contaminated material (soils, runoff); and ▪ Introduction or spread of invasive species.	▪ Land use changes as a result of regeneration of infill and brownfield sites. Direct and long-term in nature. ▪ Degradation of habitats as a result of contaminated run-off, release of suspended solids (possibly contaminated). ▪ Loss of habitat and/or species or reduction in habitat quality as a result of introduction or spread of invasive species via construction, upgrade and/or operational works. Indirect and long-term in nature.
Emissions to air including GHG from Transport and other Sectors	▪ Habitat loss or destruction; ▪ Habitat degradation; ▪ Disturbance to habitats/species ▪ Species mortality; and ▪ Introduction or spread of invasive species.	▪ Disturbance to habitats/species and/or habitat/species loss as a result of emissions to air including GHG e.g. altered competition dynamics. Indirect and long-term in nature. ▪ Habitat/species loss due to inability to alter distribution ranges in response to climate change. Indirect and long-term in nature ▪ Habitat degradation due to decreased plant primary productivity, reduced nitrogen fixation rates. Indirect and long-term in nature ▪ Reduced success of species due to changes in air quality. Indirect and long-term in nature ▪ Generation and combustion of fossil and other alternative fuels and associated emissions to air. Indirect and long term in nature.

Impact Source	Impact Identification	Impact Prediction
Emissions to Water (from WT and WWT and runoff from construction / operation of infrastructure)	▪ Habitat degradation; ▪ Disturbance to habitats/species; ▪ Species mortality; and ▪ Introduction or spread of invasive species.	▪ Alterations to water quality and/or water movement as a result of urban intensification e.g. sediment and nutrient run-off to nearby watercourses and alterations to drainage patterns. Indirect and long-term in nature. ▪ Land use changes altering groundwater movement e.g. construction of infrastructure altering groundwater movement to groundwater dependent habitats. Indirect and long-term in nature. ▪ Increased organic loads from leading to changes in population dynamics. Direct and long term in nature ▪ Increased P loading to the receiving waters directly into European Sites. Indirect and long term in nature ▪ Reduction in the physical footprint of a site due to provision of WT / WWT infrastructure. Direct and long term in nature ▪ Increased P loading to European Sites *via* subsurface pathways, through leakage and DWWTS. Subsurface pathways include both the groundwater contribution to surface waters but also the potential for impact to groundwater dependent terrestrial ecosystems in the European Sites within the ZoI. Indirect and long term in nature

6.4 ASSESSMENT OF EFFECTS

Article 6 of the Habitats Directive states that:

> *Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications of the site in view of the site's conservation objectives.*

The impact prediction and assessment of potential effects of the mitigation measures outlined in the NPF on the Natura 2000 Network has considered the potential to impact on the achievement of the COs of the European Sites and is presented in the following sections.

The purpose of the NPF is to provide a focal point for spatial plans throughout the planning hierarchy. The NPF will co-ordinate the strategic planning of urban and rural areas in a regional development context to secure overall proper planning and development as well as co-ordination of the RSES's and city/county development plans in addition to local economic and community plans as well as local area plans and local development.

6.4.1 The Impact of Spatial Planning on Biodiversity and the Natura 2000 Network

A view of European Sites as static features which require protection from development first and foremost has historically led to conflicts between developers and nature conservationists with the stand-off resulting in *wins and losses* for both sides. Effective spatial planning can instead act as a first line of defence for maintaining the integrity of the Natura 2000 network in Ireland and as a consequence protect biodiversity.

A spatial planning view that sees nature as part of a wider landscape and seeks to integrate and enhance biodiversity is likely to result in better outcomes for all stakeholders. Examples of spatial planning led initiatives which seek to integrate biodiversity are evident in Ireland and provide evidence base and lessons learned for a more national approach. Some local authorities, for example, have developed Green Infrastructure networks to support, integrate and enhance significant European Sites with development areas. This includes strategies for integration of networks of natural habitat/biodiversity locations, parkland for low intensity recreational uses, heritage features, green routes, surface water and flood risk management with development areas. The approach does not pit one sector against another but instead sees the interconnectedness between different elements of a spatial plan. By recognising this early in the plan making process, strategies can be developed which plan for integration rather than react to conflict.

A further challenge for spatial planners is to understand and plan for a future with climate change, where adaptation and mitigation will be required to provide resilience not only for citizens but also for habitats and species. Global warming and climate change are recognised threats to biodiversity, and hence to European Sites and pose complex problems for planning and particularly nature conservation policy and practice. In 2007, the EPA published a study investigating the impacts of climate change on the nature conservation resources of Ireland, through the use of ecological modelling (Coll *et al*., 2012). The results of this study suggested that the habitats most vulnerable to the impacts of climate change in Ireland are:

- Upland habitats (siliceous and calcareous scree, siliceous and calcareous rocky slopes, alpine and subalpine heath);
- Peatlands (raised bog, blanket bog); and
- Coastal habitats (fixed dunes, etc.).

The report concluded that:

> *It is projected that many species in Ireland will experience significant changes to their ranges under future climate scenarios. Species with disjunct and narrow distributions are projected to experience the largest range changes, contracting and expanding, respectively.*

The key messages from the research indicate that we are already seeing changes in natural systems in Ireland and these are likely to continue, accelerating in scope and scale into the future. This scope and scale will continue into the future if greenhouse gas emissions continue unabated or increase. GHG emissions in Ireland originate from many sources but transport is one of the highest emitting sectors. The future transport needs for Ireland must therefore align with national climate adaptation and mitigation objectives and to do this smarter travel policies must be fully supported by smarter land use planning objectives which connect public transport with higher density housing in cities while also maximising opportunities to develop more public transport options for larger and smaller towns around Ireland.

6.4.2 Content of the draft NPF

Specific policy objectives have been included in the NPF which address population targets, improving centres of scales, urban compactness, smarter travel, climate change and economic development. These policy objectives are assessed in **Tables 6.2 – 6.10** which follow. **Table 6.12** deals with in combination impacts from other relevant plans and projects.

In recognition of the potential for impact on European Sites and in the spirit integration of European sites into the overall policy framework for Ireland 2040, the following National Policy Objective NPO 69, has been included the NPF:

> *Ensure that all plans, projects and activities requiring consent arising from the National Planning Framework are subject to the relevant environmental assessment requirements including SEA, EIA and AA as appropriate.*

Furthermore, Chapter 10 also recognises the need for consideration of the Natura 2000 network and includes the following supporting test to the objective above:

> *All investigative and feasibility studies to be carried out to support decision making in relation to this Framework should also include an environmental appraisal which considers the potential effects on the wider environment, including specifically the Natura 2000 Network.*
>
> *At the project level, all applications for development consents for projects emanating from any policies that may give rise to likely significant effects on the environment will need to be accompanied by one or more of the following, as relevant:*

- *An Ecological Impact Assessment Report;*
- *Environmental Report;*
- *An Environmental Impact Assessment Report if deemed necessary under the relevant legislation(statutory document);*
- *Natura Impact Statement if deemed necessary if deemed necessary under the relevant legislation (statutory document).*

6.4.3 Proposed Policy Measures for A New Ways Forward (Chapter 2)

This chapter of the NPF sets out the issues and challenges to setting a new way forward in terms of coordinated planning and looks at how to target growth across the various regions and build accessible centres of scale. A summary of the key messages of this chapter are as follows:

- Ireland 2040 is aiming for projected level of growth in the Eastern and Midland Regional Assembly area would be at least matched by that of Northern and Western and Southern Regional Assembly areas combined;
- 50% of overall national growth is being targeted at the five cities of Dublin, Cork, Limerick, Galway and Waterford with enhanced national grid of infrastructure linkages in mobility, communications and energy systems;
- In addressing the livability of urban places future growth is being targeted to happen in more compact and accessible, higher quality living environments; and
- Nationally, a high proportion (40%) of new housing is to be delivered within the existing built-up 'envelope' of settlements.

Specific policy objectives have been developed and are assessed **Table 6.2**. Overall, these policy actions are considered to be broadly positive assuming that an appropriate balance is achieved between planning and environmental protection. Minimising the development of greenfield sites has positive impacts for biodiversity generally as it encourages consolidation and densification of development to existing urban envelopes.

It should be noted that the focus on the built up envelope of existing settlements in the NPO's is likely to include development on infill and brownfield sites which may relate to historic industrial activity, and in particular port activity for the five cities. If residential development is focussed at such areas there is potential for negative impacts on biodiversity. Disturbance of contaminated material may lead to mobilisation of leachates with consequent negative impacts for Water, Soils and indirectly for Biodiversity, Flora and Fauna (BFF) and potentially European Sites. If basement developments are required for apartments or underground parking then the volume of contaminated material, cumulatively, could be very high. However there is only one landfill in Ireland which is equipped to take contaminated soil and there is a limit on the level of contamination accepted. Landfill capacity nationally is generally at an all-time low due to the phasing out of landfilling under EU legislation. There are potential impacts to BFF as a result of spread of invasive alien species (IAS).

Table 6.2 – National Policy Objectives: A New Way Forward (Chapter 2 of the NPF)

NPO Ref.	Proposed National Policy Objective	Impact Assessment
1a	*The projected level of population and jobs growth in the Eastern and Midlands Regional Assembly area would be at least matched by that of Northern and Western and Southern Regional Assembly areas combined.*	It is acknowledged that population and jobs growth in any of the regional assembly areas could lead to indirect likely significant effects on European Sites through land use change from associated development (residential, commercial, industrial or from associated services provision) disturbance of habitats or species from increased populations and related employment opportunities, disruption to habitats or species from fragmentation or interruption of migration routes / territories from supporting infrastructure such as energy distribution, water distribution or transport links. Indirect impacts from increased jobs and populations could also include changes and emissions to air through increased car based transport and demand for energy depending on the source of the energy. Increased emissions to water also holds potential for significant impacts on adjacent and/ or downstream Natura 2000 sites. It is acknowledged that other supporting objectives in the NPF point toward a focus on the existing built up envelope which would avoid the loss of more greenfield areas which may act as stepping stones for biodiversity or provide much needed buffers from disturbance. This is particularly important in the case of the 5 cities identified as they are all adjacent to European Sites. See **Section 6.5** for further discussion.
1b	▪ *Eastern and Midlands Region: a targeted 475,000-500,000 (0.475-0.5m) additional people, i.e. a population of around 2.8 million;* ▪ *Northern and Western Region: a targeted 150,000-175,000 (0.15-0.175m) additional people, i.e. a population of around 1 million;* ▪ *Southern Region: a targeted 350,000-375,000 (0.35-375m) additional people, i.e. a population of almost 2 million.*	
1c	▪ *Eastern and Midlands Region: a targeted 330,000 (0.33m) additional jobs, i.e. at least 1.33 million in total;* ▪ *The Northern and Western Region: a targeted 110,000 (0.11m) additional jobs, i.e. at least 450,000 (0.45m) in total;* ▪ *The Southern Region: around 220,000 (0.22m) additional jobs, i.e. at least 880,000 (0.88m) in total.*	
2a	*That population and jobs growth would be aligned to occur within the same functional area, whether a city of town catchment or all or part of one or more adjoining local authority area(s), on a coordinated basis through the Regional Spatial and Economic Strategy (RSES) and City and County Development processes.*	It is acknowledged that population and jobs growth in any of the regional assembly areas could lead to indirect likely significant effects on European Sites through land use change from associated development (residential, commercial, industrial or from associated services provision) disturbance of habitats or species from increased populations and related employment opportunities, disruption to habitats or species from fragmentation or interruption of migration routes / territories from supporting infrastructure such as energy distribution, water distribution or transport links. Indirect impacts from increased jobs and populations could also include changes and emissions to air through increased car based transport and demand for energy depending on the source of the energy. Increased emissions to water also holds potential for significant impacts
2b	*That at least half (50%) of future population and jobs growth would be focused in the five Cities and their immediately adjoining suburbs and that around two-thirds (66%) would be focused in the cities and their suburbs together with a number of large regionally distributed towns and their environs to be identified through the Regional Spatial and Economic Strategy (RSES) process.*	

NPO Ref.	Proposed National Policy Objective	Impact Assessment
2c	*That accessibility to the north-west of Ireland and between centres of scale other than Dublin would be improved, focused on cities and larger, regionally distributed centres and on key east-west and north-south routes.*	on adjacent and/ or downstream Natura 2000 sites. See **Section 6.5** for further discussion. It is acknowledged that other supporting objectives in the NPF point toward a focus on the existing built up envelope which would avoid the loss of more greenfield areas which may act as stepping stones for biodiversity or provide much needed buffers from disturbance. This is particularly important in the case of the 5 cities identified as they are all adjacent to European Sites. Improved accessibility to centres of scale other than Dublin is mentioned. This may include road upgrades, new roads, rail links or improved public transport services. In all cases there is potential for likely significant impacts on European Sites. This is discussed further in **Section 6.5**.
3a	*Deliver at least 40% of all new homes nationally within the built-up envelope of existing urban settlements[12];*	There is potential for likely significant effects to European Sites as these NPO relates to development in existing built up areas. In city areas in particular, but also larger town it is anticipated that this will include use of infill and brownfield sites. I*t is noted that no mapping identifying potential infill or brownfield areas is available and as such the spatial distribution in relation to influence on the Natura 2000 network is not possible. However it is considered that nationally some such sites will be within a zone of influence of a Natura 2000 site. Of particular concern with regard to this policy is the potential to encounter contamination at brownfield sites in particular and the potential for regeneration of these areas to give rise to contaminated runoff which could impact surface water or ground water connections through to SAC / SPA. It is therefore proposed that a map is developed by each local authority, coordinated at the Regional Assembly level, showing potential infill and brownfield opportunities in order to spatially inform decision making on the suitability of these sites for further development or regeneration.*
3b	*At least half (50%) of all new homes in the five Cities and immediately adjoining suburban areas of Dublin, Cork, Limerick, Galway and Waterford would be delivered within the built-up envelope of existing urban settlements[13];*	
3c	*In areas other than the five City and suburban areas of Dublin, Cork, Limerick, Galway and Waterford, at least 30% of all new homes would be delivered within the built-up envelope of existing urban settlements[14].*	

[12] This means within the existing built-up envelope of all sizes of urban settlement, as defined by the CSO in line with UN criteria i.e. having a minimum of 50 occupied dwellings, with a maximum distance between any dwelling and the building closest to it of 100 metres, and where there is evidence of an urban centre (shop, school etc.)

[13] On the basis of National Policy Objective 2b, this effectively targets 25% of all new homes nationally

[14] On the basis of National Policy Objective 2b, this effectively targets 15% of all new homes nationally. Individual or scheme homes delivered outside the CSO defined urban settlement boundary are classed as greenfield

6.4.4 Proposed Policy Measures for Making Stronger Urban Places (Chapter 3)

This policy area provides details on the importance of urban centres and how to make cities, towns and villages attractive places to live, work and visit through planning for urban growth. A summary of the key messages includes:

- Encouraging proportionally higher levels of population growth at the locations where they can best be accommodated based on considerations of scale and capacity, accessibility and urban structure; and
- Ireland's cities and towns and their wider regions will be strengthened through proportionate growth at all scales with a key requirement to strengthen our cities as they are of strategic national importance for Ireland's overall competitiveness.

The creation of attractive, liveable and well-designed urban places are broadly positive as long as this can be achieved in balance with biodiversity which also shares an area.

Table 6.3 – National Policy Objectives: Making Stronger Urban Places (Chapter 3)

NPO Ref.	Proposed National Policy Objective	Impact Assessment
4	*Ensure the creation of attractive, liveable, well designed, high quality urban places that are home to diverse and integrated communities that enjoy a high quality of life and well-being.*	No potential likely significant effects to European Sites from this vision policy. The policy could be strengthened if it acknowledged the role of biodiversity generally as part of the vision.
5	*To develop cities of sufficient scale and quality to compete internationally and to be drivers of national and regional growth and investment.*	The NPF identifies five cities which will be the focus for growth and the drivers for investment. These cities are Dublin, Waterford, Cork, Limerick and Galway. All of these cities have European Sites within their jurisdiction and/ or in the marine space adjacent to them. As such any increases in population or encouragement of investment and growth have potential for negative impacts on European Sites. See **Section 6.5** for further discussion.
6	*That cities, towns and villages of all types and scale are supported as environmental assets to be regenerated in order to accommodate changing roles and functions and enhanced levels of amenity and design in order to exert a positive influence on their surrounding area.*	Although not specific about type of amenity/ design or location the policy indicates a general intention to regenerate cities, towns and villages to create positive influence. Such regeneration is likely to result in construction and growth in population/ activity with potential for potential for negative impacts on European Sites. See **Section 6.5** for further discussion. See **Section 6.5** for a discussion on construction impacts.
7	*Strengthen all levels of Irelands urban structure, with a particular focus on:* ▪ *Our Capital, Dublin* ▪ *the four Cities of Cork, Limerick, Galway and Waterford* ▪ *large towns (>10,000 population) located*	The policy does not specify how the urban structure will be strengthened however it is anticipated that this will include encouragement of growth and investment. All of these cities and many of the large and small towns identified in the NPF have European Sites within their jurisdiction and/ or adjacent to them. As such any

NPO Ref.	Proposed National Policy Objective	Impact Assessment
	outside the five city regions[15] *and particularly in the northern and western region* ▪ *small towns (<10,000 population) located outside the five city regions in conjunction with their surrounding rural areas*[16]	increases in population or encouragement of investment and growth have potential for negative impacts on European Sites. See **Section 6.5** for further discussion.
7a	*To achieve sustainable national growth in urban and rural areas, a National Smart Growth initiative will be put in place to support development and to leverage both public and private investment, as part of a ten year capital investment plan.*	No potential likely significant effects on European Sites as a result of this policy however it is noted that the criteria provided in the NPF do not fully address strategic environmental protection. It is recommended that the DHPLG develop a set of Guiding Principles which integrate biodiversity for Smart Growth in Urban and Rural areas to better inform lower level criteria and guide development.
8	*To ensure that the targeted pattern of population growth of Ireland's cities and large towns to 2040 is proportionate, in accordance with the targets set out in Table 3.1.*	The policy does not specify how the urban structure will be strengthened however it is anticipated that this will include encouragement of growth and investment. All of these cities and many of the large and small tows identified in the NPF have European Sites within their jurisdiction and / or adjacent to them. As such any increases in population or encouragement of investment and growth have potential for negative impacts on European Sites. See **Section 6.5** for further discussion.
9a	*Regional and Local Authorities to identify and quantify locations for strategic employment growth in the cities identified on Table 3.1.*	No potential likely significant effects to European Sites from these policies which are focussed on identifying locations, however it is noted that there is potential for direct and indirect impacts on European Sites if the identification of locations for strategic employment growth in the cities and towns identified in Table 3.1 does not consider the potential for impacts on European Sites as one of the criteria in the identification process. See **Section 6.5** for further discussion.
9b	*Regional and Local Authorities to identify and quantify locations for employment growth, where suitable, in urban areas generally.*	
10	*That there is a presumption in favour of development that encourages more people, jobs and activity within existing urban areas, subject to development meeting appropriate standards and achieving targeted growth.*	Potential for negative impacts on European Sites as a result of this policy as the presumption only deals explicitly with development potential but does not explicitly link it to protection of the Natura 2000 network. This policy should be reworded as follows: That there is a presumption in favour of development that encourages more people, jobs and activity within existing urban areas, subject to development meeting appropriate standards, achieving targeted growth and subject to the

[15] The standardized EU/OECD definition of a city region is the commuter catchment from which at least 15% of the relevant city area workforce is drawn. This will vary from Census to Census, but has been expanding in recent years.
[16] See chapter 4 of the NPF

NPO Ref.	Proposed National Policy Objective	Impact Assessment
		outcome of an Appropriate Assessment.
11	*In urban areas, planning and related standards, including in particular building height and car parking will be based on performance criteria that seek to achieve well-designed high quality outcomes in order to achieve targeted growth. These standards will be subject to a range of tolerance that enables alternative solutions to be proposed to achieve stated outcomes, provided public safety is not compromised and the environment is suitably protected.*	The use of performance criteria will not result in impacts on any European Sites.
12	*In urban areas, active land management will be applied to identify a range of opportunities to achieve targeted growth, up to and including the establishment of special purpose vehicles such as a national land development agency and seeking to broaden the applicability of compulsory purchase legislation to enable urban development in certain circumstances, to ensure the development of infill and brownfield lands in the most sustainable economic and environmental manner possible.*	The setting up of a land management agency will not result in impacts on any European Sites. Potential for likely significant effects to European Sites as this NPO relates to development in existing built up areas. In city areas in particular, but also larger town it is anticipated that this will include use of infill and brownfield sites. I*t is noted that no mapping identifying potential infill or brownfield areas is available and as such the spatial distribution in relation to influence on the Natura 2000 network is not possible. However it is considered that nationally some such sites will be within a zone of influence of a Natura 2000 site. Of particular concern with regard to this policy is the potential to encounter contamination at brownfield sites in particular and the potential for regeneration of these areas to give rise to contaminated runoff which could impact surface water or ground water connections through to SAC / SPA. It is therefore proposed that a map is developed by each local authority, coordinated at the Regional Assembly level, showing potential infill and brownfield opportunities in order to spatially inform decision making on the suitability of these sites for further development or regeneration.*

6.4.5 Key Growth Enablers for the Five City Areas

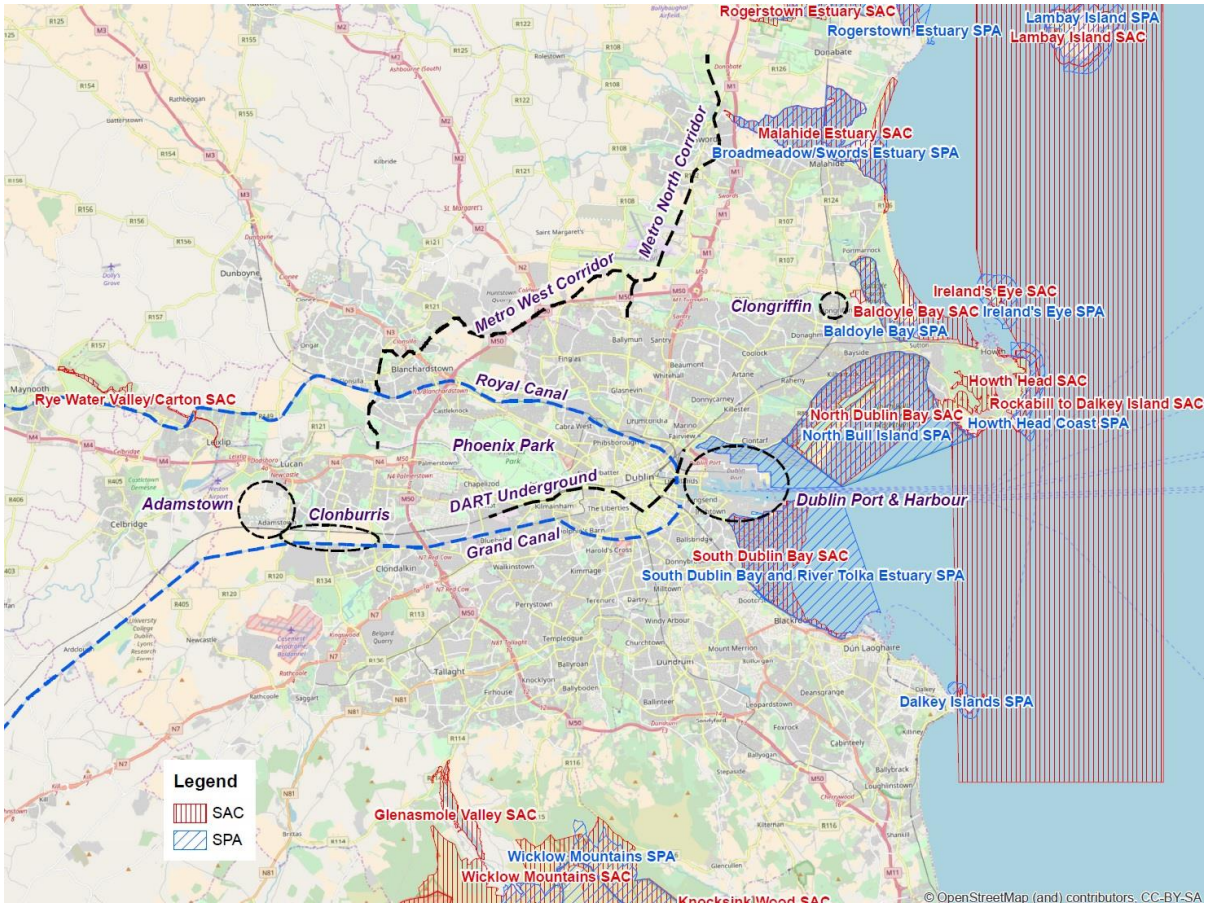
All five of the cities that have been identified for targeted investment and focussed growth are located partially within, alongside, or are in close proximity to European Sites. Despite this, the policy objectives are broadly positive in terms of balancing sustainable development with environmental protection, nonetheless there is potential for significant adverse impacts on European Sites and their Qualifying Interests/Special Conservation Interests. The European Sites, for each of the five areas are shown below.

The bulk of the enablers that have been identified for the 5 city areas identified in the plan are high level or strategic in nature and **Section 6.5** of this document provides further discussion in relation to a range of key issues associated with the NPF.

Dublin

The key enablers for Dublin are:

- Identifying a number of ambitious large-scale regeneration areas for the provision of new housing and employment throughout the city and metropolitan area and the measures required to facilitate them as integrated, sustainable development projects;
- Progressing the sustainable development of new greenfield areas for housing, especially those on public transport corridors, such as Adamstown, Cherrywood, Clonburris and Clongriffin;
- Determining a limited number of accessible locations for significant people-intensive employment to complement the city-centre and docklands areas;
- Enabling enhanced opportunities for existing communities as development and diversification occurs, particularly through employment, learning and education support;
- Relocating less intensive uses outside the M50 ring in particular and from the existing built-up area generally;
- Delivering the key rail projects set out in the Transport Strategy for the Greater Dublin Area including Metro North, DART expansion and the Luas green line link to Metro North
- The development of an improved bus-based system, with better orbital connectivity and integration with other transport networks;
- Ensuring that water supply and waste-water needs are met by new national projects to enhance Dublin's water supply and increase waste water treatment capacity;
- Improving sustainability in terms of energy, waste and water, to include district heating and water conservation;
- Public realm and urban amenity projects, focused on streets and public spaces, especially in the area between the canals and where linked to social regeneration projects;
- Measures to enhance and better link the existing network of green spaces, including the Phoenix Park and other parks, Dublin Bay and the canals, subject to carrying out a routing study and any necessary environmental assessments;
- Delivery of the metropolitan cycle network set out in the Greater Dublin Area Cycle Network Plan inclusive of key commuter routes and urban greenways on the canal, river and coastal corridors;
- Improving access to Dublin Airport, to include improved public transport access and road connections from the road network from the west and north and in the longer term, consideration of heavy rail access to facilitate direct services from the national rail network in the context of potential future electrification;
- Facilitating the growth of Dublin Port through greater efficiency, limited expansion into Dublin Harbour and improved road access, particularly to/from the southern port area.



There is a considerable abundance of (often) overlapping European Sites along much of the Dublin coastline and in the offshore space including:

- Rogerstown Estuary SAC (000208);
- Malahide Estuary SAC (000205);
- Baldoyle Bay SAC (000199);
- Howth Head SAC (000202);
- North Dublin Bay SAC (000206);
- South Dublin Bay SAC (000210);
- Rogerstown Estuary SPA (004015);
- Broadmeadow/Swords Estuary SPA (004025);
- Baldoyle Bay SPA (004016);
- Howth Head Coast SPA (004113);
- North Bull Island SPA (004006); and
- South Dublin Bay and River Tolka SPA (004024).
- Lambay Island SAC (000204);
- Skerries Islands SPA (004122);
- Ireland's Eye SAC (002193);
- Rockabill to Dalkey Island SAC (003000);
- Lambay Island SPA (004069);
- Ireland's Eye SPA (004117);

- Rockabill SPA (004014); and
- Dalkey Islands SPA (004172).

In addition there are further European Sites in Kildare, Wicklow and Louth which may be in the zone of influence of projects for Dublin, depending on the nature of the project and the potential pathways for pollution. The abundance and diversity of European Sites along with their associated QI/SCI, along the coastline therefore requires that critical consideration of potential impacts must be addressed by projects arising from the NPF.

Of particular note are those key enablers relating to developments in Dublin Port and Dublin Bay. There are a number of European Sites in the vicinity to Dublin Port / Dublin Bay including North Dublin Bay cSAC; South Dublin Bay cSAC; Rockabill to Dalkey cSAC and North Bull Island SPA. These sites include extensive areas of sandflats and mudflats, offshore sandy and muddy seabed, reefs, sandbanks and islands as well as Annex II species such as petalwort (*Petalophyllum ralfsii*), Harbour Porpoise and populations of light-bellied Brent Goose, black-tailed godwit and bar-tailed godwit. *Growth of Dublin* Port including expansion into Dublin Harbour and improved access has the potential for impact on these European Sites through changes in coastal processes and sediment budgets as a result of dredging or similar works required within the Harbour; impacts on Annex II species during construction (dredging, piling, dumping of materials); temporary loss of food sources; increased disturbance from improved access routes bring more traffic and emissions into the area. This is in combination with other ongoing port activities such as maintenance dredging.

An NIS has been prepared in relation to the Alexander Basin Redevelopment and it was concluded that: *"Measures for impact reduction have been incorporated into the project proposal, including design-stage avoidance, in addition to mitigation measures proposed in the NIS for the avoidance and reduction of impacts on the qualifying interests and conservation objectives of the designated Natura 2000 sites within the study area. With the implementation of these measures the ABR project will not result in direct, indirect or cumulative impacts which would have the potential to adversely affect the qualifying interests/special conservation interests of the Natura 2000 sites within the study area with regard to the range, population densities or conservation status of the habitats and species for which these sites are designated (i.e. conservation objectives)."* The implementation of this mitigation will be essential to the protection of the European Sites in the ZoI of the port.

Also of note is the delivery of the metropolitan cycle network as set out in the *Greater Dublin Area Cycle Network Plan which* reinforces the objectives of the GDA cycle network strategy 2014. Given the potential proximity to and connectivity of this integrated network with a considerable number of European Sites, these sectoral plans have been subject to SEA and AA and appropriate mitigation has been developed.

Of the proposed new greenfield areas for housing included as a key enabler, Clongriffin in particular has potential for indirect impacts as a result of increased visitor pressure to coastal areas which may have disturbance sensitivities related to adjacent SPA. This should be considered as part of lower tiers of planning e.g. SDZ/ LAP for such greenfield areas.

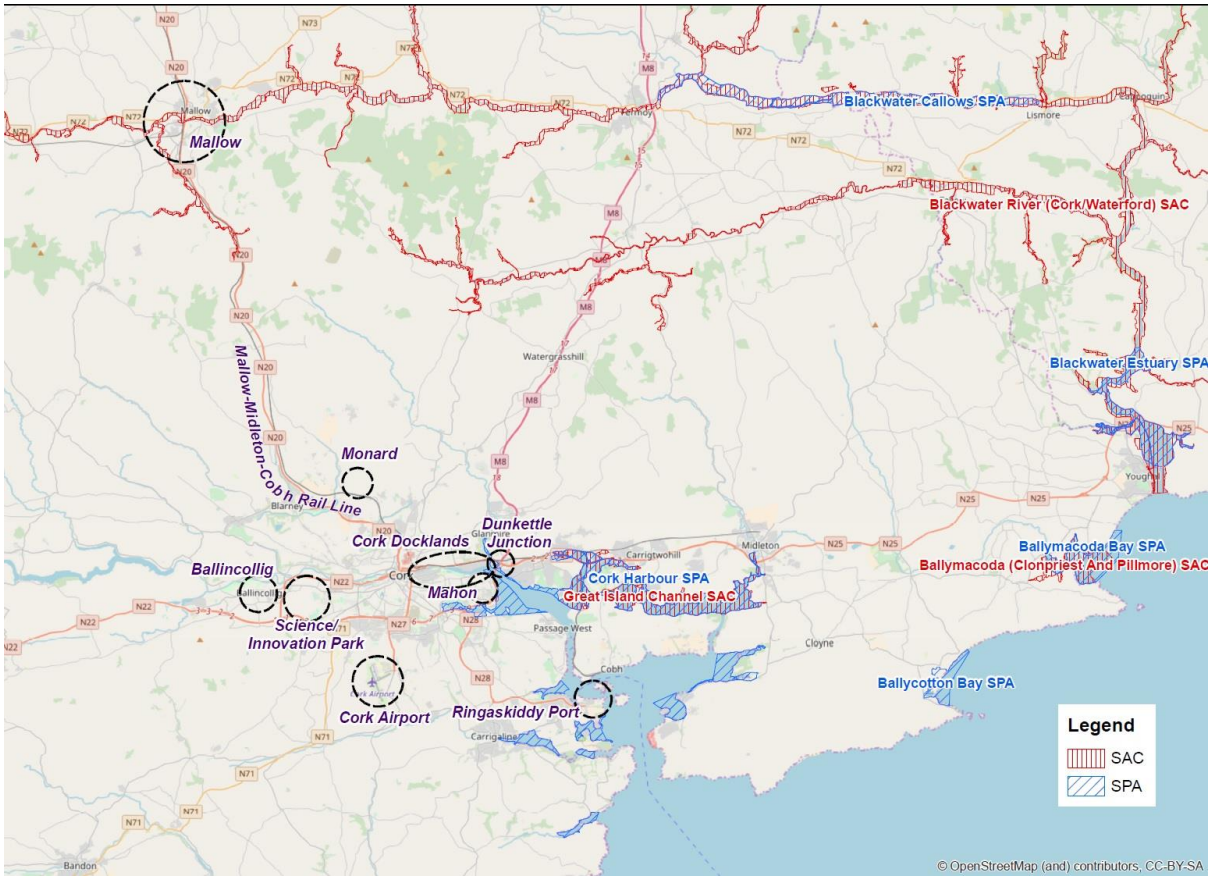
Currently Dublin Airport is undergoing considerable infrastructural developments e.g. the new north runway, for which planning permission has been awarded or is being sought. Additionally, given the strategic nature of the airport and its pivotal role in Fingal, an updated Local Area Plan is being prepared and is currently the subject of an SEA and AA. To ensure environmental protection and the

long term sustainable development of the airport lands, the AA for the LAP should consider the access priorities listed above.

Cork

The key enablers for Cork are:

- Delivering ambitious large-scale regeneration projects for the provision of new employment, housing and supporting infrastructure in Cork Docklands (City Docks and Tivoli) as integrated, sustainable developments, including relocation of two 'Seveso' sites from the City Docks;
- Progressing the sustainable development of new greenfield areas for housing, especially those on public transport corridors, such as Monard;
- Identifying infill and regeneration opportunities to intensify housing development in inner city and inner suburban areas, supported by public realm and urban amenity projects
- Enabling enhanced opportunities for existing communities as development and diversification occurs, particularly through employment, learning and education support;
- Development of a new science and innovation park to the west of the City, accessible by public transport;
- The continued expansion of and integration with the City's third level institutions;
- The development of a much enhanced Citywide public transport system to incorporate subject to further analysis, proposals for an east-west corridor from Mahon, through the City Centre to Ballincollig and a north-south corridor with a link to the Airport;
- M8/N25/N40 Dunkettle Junction upgrade (approved) and improved Ringaskiddy Port access;
- Enhanced regional connectivity through improved average journey times by road;
- Improved traffic flow around the City, which subject to assessment could include upgrade of the N40, and/or alternatives which may include enhanced public transport;
- Improved rail journey times to Dublin and consideration of improved onward direct network connections;
- Ensuring that water supply and waste-water needs are met by new national projects to enhance Corks water supply and increase waste water treatment capacity;
- Improving sustainability in terms of energy, waste and water, to include district heating and water conservation.



Cork city and environs are adjacent to two specific European sites which include:

- Great Island Channel SAC (001058); and
- Cork harbour SPA (004030).

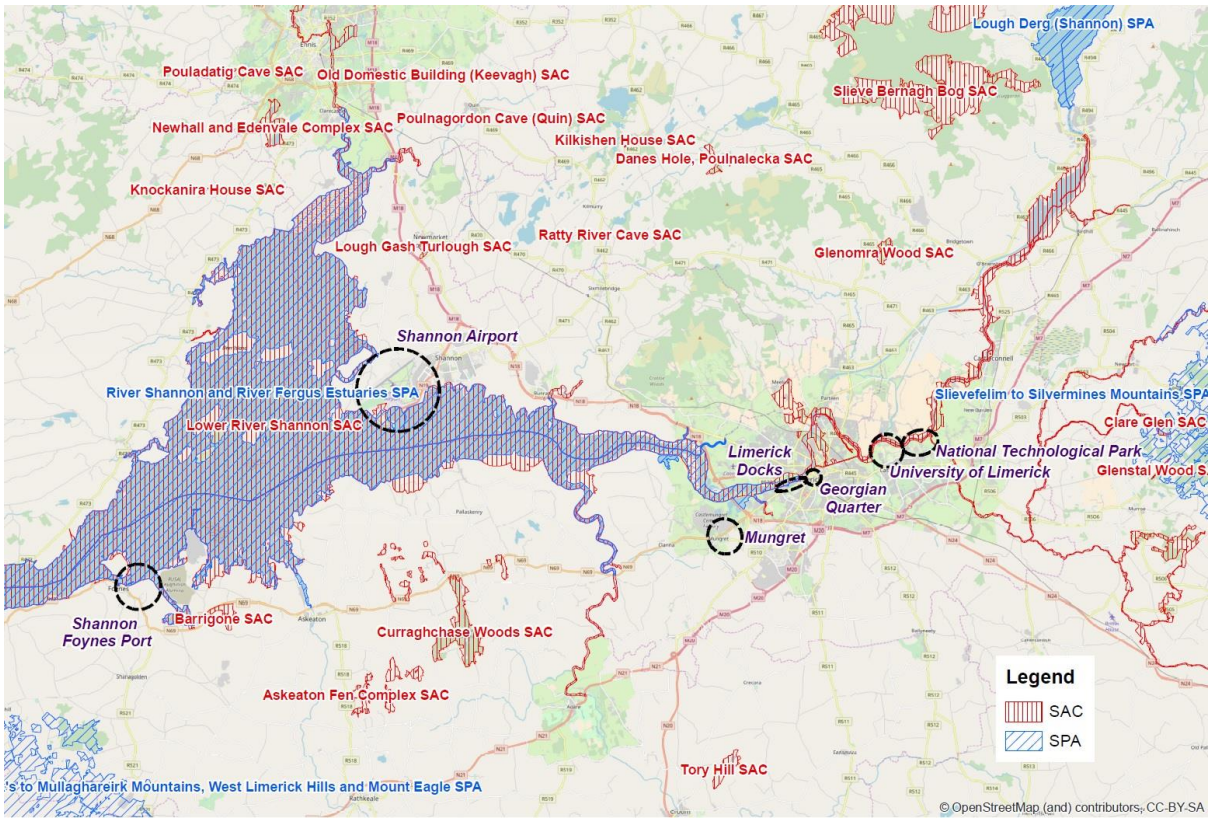
A number of the enablers relate to development of the docklands and improved transport arrangements in the city particularly Ringaskiddy Port access and upgrades to the Dunkettle Interchange. Development of the docklands area has the potential for negative effects through construction related disturbance, potential for pollution from contaminated docklands, increased visitor pressure from increased populations etc. The proposed transport improvements are likely to result in additional emission to air during the construction phase and operation of upgraded road. Any such project will require appropriate assessment and/ or development of project-specific mitigation given the proximity to and connectivity with estuarine European Sites.

Limerick

The key enablers for Limerick are:

- Implementation of the Limerick 2030 economic strategy to create modern, city centre office accommodation and a series of transformational city centre public realm projects;
- Complementary further development of the Limerick 2030 plan to include measures to encourage significant inner urban residential regeneration and development, to include the City's Georgian Quarter;

- Extending the ambition of the Limerick 2030 plan to include extension of the City Centre towards Limerick Docks
- Identifying infill and regeneration opportunities to intensify housing and employment development throughout inner suburban areas;
- Enabling enhanced opportunities for existing communities as development and diversification occurs, particularly through employment, learning and education support;
- Progressing the sustainable development of new greenfield areas for housing and the development of supporting public transport and infrastructure, such as at Mungret;
- The continued expansion of the City's third level institutions and integration with the wider City and region;
- Provision of a Citywide public transport network, with enhanced accessibility from the City Centre to the National Technological Park, UL and Shannon Airport;
- Development of a strategic cycleway network with a number of high capacity flagship routes;
- Enhanced road connectivity to Shannon-Foynes Port, including local by-passes;
- Enhanced regional connectivity through improved average journey times by road to Cork and Waterford;
- Ensuring that water supply and waste-water needs are met by new national projects to enhance Limerick's water supply and increase waste water treatment capacity;
- Improving sustainability in terms of energy, waste and water, to include district heating and water conservation.



Limerick straddles both banks of the River Shannon. The lower stretches of this river (including the areas in which Limerick City is located) are designated for conservation purposes by two European Sites in particular, the Lower River Shannon SAC (001265) and the River Shannon and River Fergus SPA (004077). Both designations, overlapping in territory in places, support a considerable number of Qualifying Interests and Special Conservation Interests, including a number of priority habitats and nutrient sensitive species, which have the potential to be negatively impacted upon.

A number of locations and infrastructure are specifically referenced in the key enablers for Limerick including the docks, the port, the technology park, UL and the Shannon Airport. Key considerations include potential for impacts on Barrigone SAC; Curraghchase SAC; Asketon Fen Complex SAC; and Lower River Shannon SAC/ River Shannon and River Fergus SPA by any road infrastructure, particularly along the existing N69 towards the Shannon Foynes Port. Improved access to the Shannon Airport also holds potential for impacts given the existing sensitivity related to the River Shannon and River Fergus SPA as a result of enhancement of the *public transport network* is considered limited.

The sensitivity of the receiving environment cannot be understated given the many pressures on the River Shannon. A considerable body of work, including a comprehensive SEA and AA were undertaken to inform the Shannon Integrated Framework Plan and much of the mitigation proposed to these strategic proposals. The proposed developments will be subject to site / route selection in the first instance and later to detailed design and planning wherein consideration of the ecological sensitivities and appropriate assessment, and the likely development of specific mitigation measures to counter the adverse impacts on European Sites and their qualifying features will apply.

Galway

The key enablers for Galway are:

- Delivering a number of regeneration projects for the provision of new development to extend and intensify the City Centre, including the Station, Docks and Headford Road areas;
- Identifying infill and regeneration opportunities to intensify housing and employment development throughout inner suburban areas;
- Progressing the sustainable development of new greenfield areas for housing and the development of supporting public transport and infrastructure, such as at Ardaun;
- Improving access and sustainable transport links to, and integration with, the existing employment areas to the east of the City at Parkmore, Ballybrit and Mervue;
- The continued expansion of the city's third level institutions and integration with the city and region;
- Determining the sustainable future development of the Galway Airport site for employment and/or residential use together with supporting facilities and infrastructure;
- Provision of a Citywide public transport network, with enhanced accessibility between existing and proposed residential areas and the City Centre, third level institutions and the employment areas to the east of the city;
- Public realm and urban amenity projects, focused on streets and public spaces, particularly in support of an extended city centre area and where residential and employment areas can be linked to pedestrian routes;
- Development of a strategic cycleway network with a number of high capacity flagship routes;
- Delivery of the Galway City Ring Road;

- Delivery of the Galway East Main Drainage Waste Water Treatment Plant;
- Ensuring that water supply and waste-water needs are met by new national projects to enhance Galway's water supply and increase waste water treatment capacity;
- Improving sustainability in terms of energy, waste and water, to include district heating and water conservation.

Galway is constrained by the presence of a number of extensive European Sites which surround much of the city. At least six European Sites encircle, or indeed flow through the city. These include:

- Galway Bay Complex SAC (000268);
- Lough Corrib SAC (000297);
- Inner Galway Bay SPA (004031);
- Lough Corrib SPA (004042);
- Connemara Bog Complex SPA (004181); and
- Cregganna Marsh SPA (004142).

The qualifying features for these European Sites are comprehensive and include both coastal and terrestrial habitats and feature a number of priority habitats and nutrient sensitive species such as

Freshwater Pearl Mussel and Salmon. The extensive Connemara Bog complex SAC (02034) further constrains sustainable development along the narrow coastal stretch towards Bearna and beyond.

Of the key enablers identified for Galway, the majority are strategically focussed on the sustainable development and landuse largely within the existing footprint of the city or in areas potentially around Galway Airport as well as the extension of public transport infrastructure and cycleways serving high capacity flagship routes both within the city as well as the wider environs. Of particular note is the delivery of the Galway City Ring Road; and Delivery of the Galway East Main Drainage Waste Water Treatment Plant.

Both are significant infrastructural projects for which considerable environmental studies have been undertaken or are required to be conducted in an effort to identify the various impacts to European Sites qualifying features. The ring road is a particularly problematic project in that previous iterations of potential routings were constrained by the proximity of European Sites and the need to span the Corrib River with a new structure. Any such development application will be subject to Appropriate Assessment with a robust assessment of alternatives provided. Notwithstanding this fact, the project may yet require a determination from the European Union for it to progress in line with Stage 4 of Appropriate Assessment – Imperative Reasons of Overriding Public Interest. As with all of the projects identified within the NPF, all are subject to national planning legislation which includes the requirement for AA as part of planning approval for projects of the scale and nature of the city bypass. The NPF does not confer planning approval but rather identifies a need which can be explored using reasonable alternatives in line with the EIA directive 2014/52/EC.

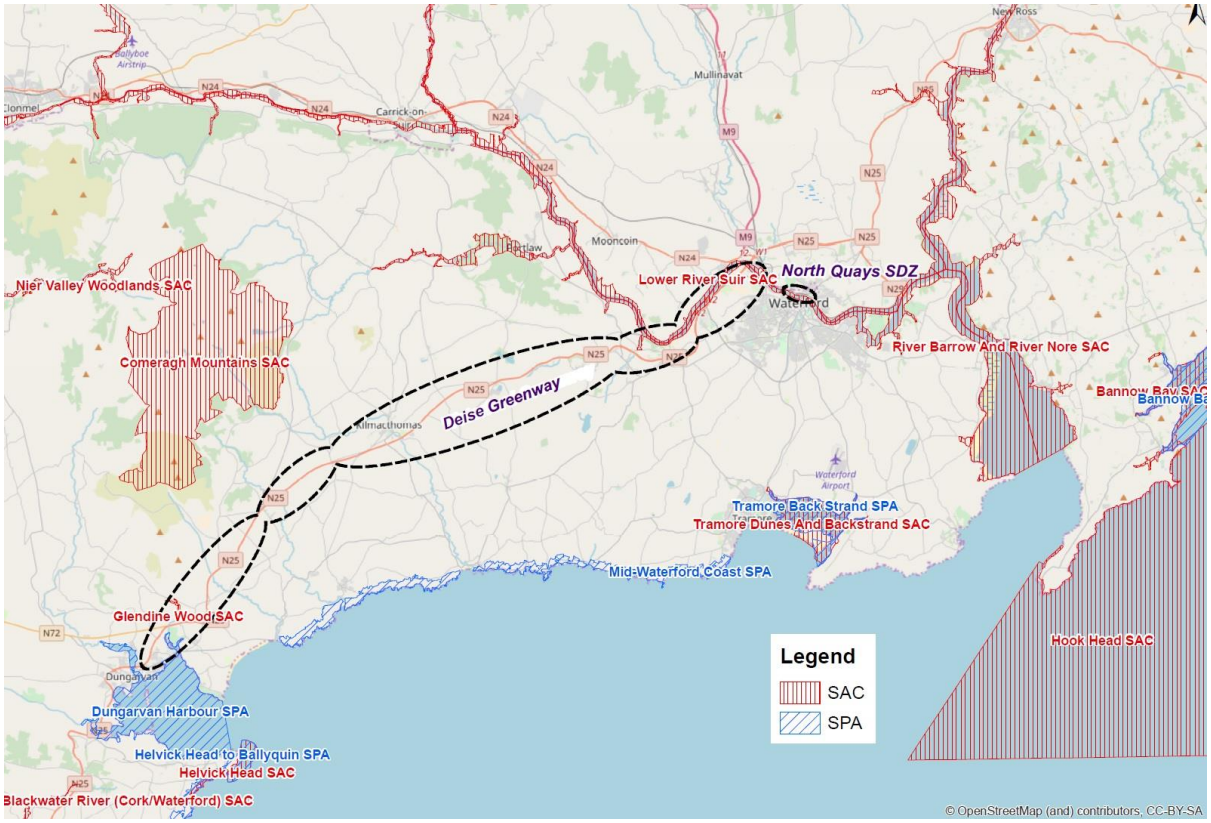
In 2015, Irish Water identified 44 locations across Galway for which untreated sewage was being discharged into lakes, rivers or directly into the sea. It was concluded that this was unacceptable and that works would be prioritised. A considerable upgrade of the Mutton Island wastewater treatment plant is apparently nearing completion, which should have a positive impact on water quality within and without European Sites. All other developments of IW infrastructure are currently subject to guidance which states that they require adherence to environmental and planning legislation during the development of water infrastructure assets.

Waterford

The key enablers for Waterford are:

- Delivering the North Quays SDZ regeneration project for integrated, sustainable development together with supporting infrastructure, including a new pedestrian bridge or a pedestrian/public transport bridge over the River Suir;
- Identifying infill and regeneration opportunities to intensify housing and employment development throughout city centre and inner suburban areas;
- Enabling enhanced opportunities for existing communities as development and diversification occurs, particularly through employment, learning and education support;
- Progressing the sustainable development of new greenfield areas for housing and the development of supporting public transport and infrastructure;
- Public realm and urban amenity projects, focused on streets and public spaces, particularly in the city centre and inner urban area in support of urban intensification;
- The development and expansion of the City's third level institution and integration with the City and region;
- Provision of Citywide public transport and strategic cycleway networks;

- Extension of the Deise greenway to link WIT to the City Centre;
- Enhanced regional connectivity through improved average journey times by road to Cork, Limerick and ports within the region;
- Ensuring that water supply and waste-water needs are met by new national projects to enhance Waterford's water supply and increase waste water treatment capacity;
- Improving sustainability in terms of energy, waste and water, to include district heating and water conservation.



Waterford City is intimately associated with the River Suir, which flows in an easterly direction though its centre. The river is designated as an SAC with a considerable number of qualifying features including Freshwater pearl mussel and two priority woodland habitats. The River Suir converges downstream of Waterford City with the River Nore and River Barrow (collectively a single European Site) also supporting a considerable number of water dependant species.

- Lower River Suir SAC (002137); and
- River Barrow and River Nore SAC (002162).

In the wider environs there are also a number of European Sites for which the more strategic objectives listed could have an impact, in the absence of further detail and/ or mitigation measures:

- Tramore Dunes and Backstrand SAC (000671)
- Tramore Back Strand SPA (004027)
- Glendine Wood SAC (002324)

- Comeragh Mountains SAC (001952)
- Mid Waterford Coast SPA (004193)
- Dungarvan Harbour SPA (004032)
- Helvick Head SAC (000665)
- Helvick Head to Ballyquin SPA (004192)

The NPF identified a number of priorities relating for Waterford and its environs, namely delivering of the north quays SDZ regeneration project including a new pedestrian/public transport bridge over the River Suir and an extension of the Deise greenway.

Although the two enablers provide some idea of specific locations, there is little by way of detail. The North Quays Strategic Development Zone has the capacity to become the catalyst for sustainable and economic and social development within Waterford, in keeping with the aims of the NPF. However, the identification of a bridge at this early stage without any location specific information and without detail of its potential instream construction requirements could result in potential for negative impacts on the Lower River Suir in the first instance and other downstream European Sites downstream. A robust alternatives assessment within the context of the SDZ and the river crossing will be required to support this objective at the regional level.

The identification of the greenway extension is considered positive in that it aims to divert reliance of vehicles and hence reduce emissions to the air. Without further detail however, or a scientific assessment of route options and development of any necessary mitigation measures has, at this stage, the potential for negative impacts to proximal European Sites. Any such project would be subject to Appropriate Assessment.

6.4.5.1 Summary Discussion

Many of the key enablers identified for the five cities are strategic in nature and relate to land regeneration, spatial planning, transport and utilities infrastructure. These are broadly discussed in **Section 6.5**. In the absence of detail further consideration of even the location specific enablers is difficult at this point. It is however noted that the NPF has proactively included NPO and supporting text which specifically acknowledges the need for lower level assessment and consideration in a tiered process from national to regional / city, county, local and ultimately project level. NPO 70 in Chapter 10 of the NPF specifically states:

> *Ensure that all plans, projects and activities requiring consent arising from the National Planning Framework are subject to the relevant environmental assessment requirements including SEA, EIA and AA as appropriate.*

Chapter 10 also explicitly requires that: *all investigative and feasibility studies to be carried out to support decision making in relation to this Framework should also include an environmental appraisal which considers the potential effects on the wider environment, including specifically the Natura 2000 Network.*

At the project level, all applications for development consents for projects emanating from any policies that may give rise to likely significant effects on the environment will need to be accompanied by one or more of the following, as relevant:

- An Ecological Impact Assessment Report;
- Environmental Report;
- An Environmental Impact Assessment Report if deemed necessary under the relevant legislation(statutory document);
- Natura Impact Statement if deemed necessary if deemed necessary under the relevant legislation (statutory document).

With these commitments included explicitly in the NPF, it is anticipated that negative effects on European Sites in view of the conservation objectives of the sites can be avoided.

6.4.6 Proposed Policy Measures for Planning for Diverse Rural Places (Chapter 4)

This chapter of the NPF provides details on the approach to conserving and enhancing rural areas while planning for future growth and development of rural areas. The key messages include:

- A significant number of people will live in our countryside in 2040;
- Ireland 2040 aims to secure 15% of national growth within the fabric of our network of smaller towns, villages and rural areas with a significant amount of that happening by redeveloping derelict and underutilised lands inside small towns and villages; and
- A new initiative will be introduced in areas in need of regeneration to incentivise local authorities to take the necessary land acquisition, site preparations and local infrastructure needed to deliver self-build development options in our smaller towns and villages.

Table 6.4 – National Policy Objectives: Planning for More Diverse Rural Places (Chapter 4)

NPO Ref.	Proposed National Policy Objective	Impact Assessment
13	*To protect and promote the quality, character and distinctiveness of the Irish landscape, the sense of place and culture that makes Ireland's rural areas authentic and attractive as places to live, work and visit. The Action Plan for Rural Development up to and including 2021 supports this objective and thereafter a review of the Action Plan for Rural Development is to be undertaken to ensure alignment and consistency with the National Policy Objectives of this Framework.*	The Action Plan for Rural Development is a government initiative plan to ensure the success of vibrant, rural communities across Ireland. This is to be achieved by the implementation of 276 actions. While it is acknowledged that many of the objectives in the Action Plan are consistent with the objectives outlined in the NPF, it is noted that there is no record of an AA. This policy is broadly positive for rural communities however the *Action Plan for Rural Development* and it subsequent reviews should be subject to AA prior to implementation, if this has not already been completed.
14	*To ensure that the targeted population growth of Ireland's small towns and rural areas to 2040 is proportionate, at a targeted average rate of 15% in each Regional Assembly area, to be applied regionally through the Regional Spatial and Economic Strategy process and locally through the County Development Plans.*	Population growth has the potential to impact on European sites through habitat loss for housing, increased pressure on water and wastewater treatment and introduction of disturbance. The application of AA to the RSES' and the CDP will ensure that as detail becomes available, the protection of European Sites is ensured.
15	*To target the reversal of rural decline in the core of small towns and villages through sustainable*	No potential likely significant effects to European Sites from this policy.

NPO Ref.	Proposed National Policy Objective	Impact Assessment
	targeted measures that addresses vacancy and deliver sustainable reuse and regeneration outcomes.	
16	*To enhance, integrate and protect the special physical, social, economic and cultural value of built heritage assets through appropriate and sensitive use now and for future generations.*	No potential likely significant effects to European Sites from this policy.
17a	*To support the proportionate growth of and appropriately designed development in rural towns that will contribute to their regeneration and renewal, including interventions in the public realm, the provision of amenities, the acquisition of sites and the provision of services.*	Population growth has the potential to impact on European sites through habitat loss for housing, increased pressure on water and wastewater treatment and introduction of disturbance. The application of AA to the RSES' and the CDP will ensure that as detail becomes available, the protection of European Sites is ensured.
17b	*To develop a programme for 'new homes in small towns and villages' with local authorities, public infrastructure agencies such as Irish Water and local communities to provide serviced sites with appropriate infrastructure to attract people to build their own homes and live in small towns and villages.*	No potential likely significant effects to European Sites are anticipated from this policy.
18a	*To ensure, in providing for the development of rural housing that a distinction is made between areas under urban influence i.e. areas within the five city regions and the hinterland of towns, and elsewhere and that the standardized EU/OECD definition of a city region shall be applied to identify the urban influence of cities and large towns (>10,000), with influence of smaller (<10,000) towns determined locally.*	No potential likely significant effects to European Sites are anticipated from this policy.
18b	*In rural areas under urban influence, to facilitate the provision of single housing in the countryside based on the core consideration of demonstrable economic need to live in a rural area.*	One off housing has led to significant environmental issues historically, often related to unsuitability of a site in terms of location in flood plains, proximity to watercourses, poor site drainage for septic tanks etc. To ensure that the demonstrable economic need does is not at a cost to European Sites it is suggested that the following text is added to the policy: …and subject to environmental suitability of the sites
19	*To project need for single housing in the countryside through the local Housing Need Demand Assessment (HNDA) tool and county development plan core strategy processes.*	This policy relates to development of a tool. No potential likely significant effects to European Sites are anticipated from this policy.
20	*To enhance the competitiveness of rural areas by supporting innovation in rural economic development and enterprise through the sustainable diversification of the rural economy into new sectors and in particular those with a low or zero carbon output.*	Encouraging sectors which have low or zero carbon output will contribute to Irelands climate change commitments. As climate change has been identified as one of the most significant long term challenges for the Natura 2000 network this policy is positive.
21	*To facilitate the development of the rural*	This NPO has potential for direct and indirect

NPO Ref.	Proposed National Policy Objective	Impact Assessment
	economy through supporting an economically efficient agricultural and food sector, together with forestry, fishing and aquaculture and diversification into alternative on-farm and off-farm activities, whilst at the same time noting the importance of maintaining the natural landscape and built heritage which are vital to rural tourism.	impacts on European Sites as a result of agriculture, forestry and aquaculture activities leading to habitat loss and degradation, species mortality and disturbance and pollution of water and air. See **section 6.5** for discussion. The sectors outlined all have significant potential to impact on European Sites. These sectors are expected to continue causing pressures on some European Sites, especially where intensification is occurring. While the natural landscape, built heritage and rural tourism are noted for their importance, this policy should also reference environmental protection and the need for AA to be undertaken prior to any development. *Suggest this policy is reworded to state:* *To facilitate the development of the rural economy through supporting an economically efficient and long-term sustainable agricultural and food sector, together with forestry, fishing and aquaculture and diversification into alternative on-farm and off-farm activities, whilst at the same time noting the importance of maintaining the natural landscape, and protecting the natural / built heritage which are vital to rural tourism through application of sustainable limits on productivity.*
22	*To support and facilitate delivery of the National Broadband Plan as a means of developing further opportunities for enterprise, employment, education, innovation and skills development for those who live and work in rural areas.*	This policy is considered to be broadly positive subject to the mitigation measure prepared as part of the AA of the Intervention Plan and best practice guidance/ siting principles.
23	*Facilitate the development of a National Greenways/Blueways Strategy which prioritises projects on the basis of achieving maximum impact and connectivity at national and regional level.*	The development of such a strategy is broadly positive but must recognise the potential to impact on European Sites e.g. through land use change, loss of greenbelt and disturbance to species (particularly birds). See **Section 6.5** for a discussion of impacts in relation to infrastructure development.
24	*Working together with the Department of Rural and Community Development and the Department of Agriculture. Food and the Marine, establish a mechanism to co-ordinate structures for funding rural development that can align with Ireland 2040 and other national strategies.*	Establishing the funding structures to coordinate rural development is considered to be overall positive and will not have direct impacts on European Sites however funding structures should be linked to the outcome of AA determinations if European Sites are to be nationally protected. This is particularly important for activities that do not fall under the P&D legislation where it can be anticipated that the requirements of Part XAB of the Planning Act would apply. It is therefore recommended that the DHPLG, DRCD and the DAFM liaise with the DCHG to identify a workable approach to identify

NPO Ref.	Proposed National Policy Objective	Impact Assessment
		synergies with national funding instruments to better align national funding with national biodiversity policy. This could be led by the Office of the Planning Regulator which has been proposed in the NPF.

6.4.7 Proposed Policy Measures for People, Homes and Communities (Chapter 5)

Focusses on housing, local planning and leisure policies with a focus on the requirements of an ageing population. The key messages include:

- Housing provision in terms of housing type and tenure in Ireland outside of the social and voluntary housing sector has historically tended to be largely development/ developer-driven rather than being shaped by a strong and clear assessment of housing needs from a community perspective;
- The "one size fits all" approach to much of present housing delivery will be replaced by a new system of Housing Demand and Need Assessment (HDNA); and
- The development of our communities in the future will identify the community's needs first and ensure the development process matches those needs.

Table 6.5 – National Policy Objectives: People Homes and Communities (Chapter 5)

NPO Ref.	Proposed National Policy Objective	Impact Assessment
25	*To facilitate the promotion and creation of sustainable community development and support community organisations in their work to provide for a more sustainable future.*	No potential likely significant effects to European Sites.
26	*To support the objectives of public health policy including Healthy Ireland and the National Physical Activity Plan, though integrating such policies, where appropriate and at the applicable scale, with planning policy.*	No potential likely significant effects to European Sites however it is noted that health policy promotes uptake of walking and cycling and integration of policies for greenways, cycle routes and walking routes are likely to become part of the outcome of NPO 26. As such there may be potential for indirect impacts on European Sites from supporting health infrastructure. See **Section 6.5** for discussion on greenways.
27	*To manage the efficient use of water and wastewater resources in a sustainable way that delivers an adequate supply of safe public drinking water to citizens, supports economic growth and preserves our environment.*	Broadly speaking this policy is positive and does not have potential for impact on European Sites. It is noted that IW as the Water Authority in Ireland has a robust planning hierarchy which requires AA for Tier 1, 2 and 3 plans and programmes, utilises an environmental assessment tool for all projects which flags the need for AA and also undertakes AA on projects outside the planning system e.g. orthophosphate dosing.

NPO Ref.	Proposed National Policy Objective	Impact Assessment
28	*To ensure the integration of safe and convenient alternatives to the car into the design of our communities, by integrating physical activity facilities for all ages, particularly prioritising walking and cycling accessibility to both existing and proposed future development, in all settlements.*	Indirect potential negative depending on location. A lot of cycleways etc. promote use of river corridors and coastal areas. Potential for disturbance as a result. There is potential for direct and indirect negative impacts on European Sites depending on location and the level of existing infrastructure usage vs. greenbelt development. It is recognised that many cycleways and greenways promote the use of river corridors and coastal areas and there is potential for disturbance to protected species as a result. See **Section 6.5** for a discussion of transport impacts in relation to the NPF.
29	*That local planning, housing, transport/ accessibility and leisure policies will be developed with a focus on meeting the needs and opportunities of an ageing population and that a specific projection and statement supported by clear proposals in respect of ageing communities will form part of the core strategy of city and county development plans.*	No potential likely significant effects to European Sites. Furthermore it is noted the *core strategy of city and county development plans* will be subject to AA
30	*To plan for a more diverse and socially inclusive society that targets equality of opportunity and a better quality of life to all citizens, through improved integration and greater accessibility in the delivery of sustainable communities and the provision of associated services.*	No potential likely significant effects to European Sites.
31	*To facilitate fostering and protecting the Irish language, particularly within Gaeltacht regions.*	No potential likely significant effects to European Sites.
32	*To prioritise the alignment of targeted and planned population and employment growth with investment in:-* ▪ *The provision of early childhood care and education (ECCE) facilities and new refurbished schools on well located sites within or close to existing built-up areas, that meet the diverse needs of local populations;* ▪ *The expansion and consolidation of third level facilities at locations where this will contribute to regional development; and* ▪ *Programmes for life-long learning, especially in areas of higher education and further education and training where skills gaps are identified.*	There is potential for direct and indirect impact on European Sites depending on the location of the new, refurbished schools and third level sites. A robust site selection process will be important to avoid impacts on European Sites which may be in the vicinity given the potential for construction related impacts and ongoing disturbance impacts that this policy could result in. Project level AA may be required to support planning for same.
33	*To target the delivery of 550,000 additional households up to 2040 in accordance with the policy objectives of Ireland 2040.*	Potential for direct and indirect impacts on European Sites. See **Section 6.5** for discussion
34	*To prioritise the provision of new homes at sustainable locations and at an appropriate scale relative to location.*	Potential for direct and indirect impacts on European Sites. See **Section 6.5** for discussion

NPO Ref.	Proposed National Policy Objective	Impact Assessment
35	*To implement the short term measures to reduce vacancy and to progressively target the reduction of the national housing vacancy rate to 5% by 2040 (currently 9.15%).*	There is insufficient detail in terms of the location of the vacant properties at this national scale however it is noted a key issue for the development of any Vacancy Re-Use Strategy is the potential to impact on bats and associated features such as roosts. The requirement for bat surveys for any properties falling under this strategy should be mandatory to afford the opportunity to develop options that can facilitate the ecological requirements of bats
36	*To support the provision of lifetime adaptable homes that can accommodate the changing needs of a household over time.*	No potential likely significant effects to European Sites are anticipated from this policy.
37	*To increase residential density in settlements, through a range of measures including reductions in vacancy, re-use of existing buildings, infill development schemes, area or site-based regeneration and increased building heights.*	Regeneration of brownfield sites may give rise to contaminated runoff which could impact surface water or groundwater connections through hydrological connectivity to European Sites.
38	*New statutory guidelines, supported by wider methodologies and data sources, will be put in place under Section 28 of the Planning Act to improve the evidence base, effectiveness and consistency of the planning process for housing provision at regional, metropolitan and local authority levels. This will be supported by the provision of standardized requirements by regulation for the recording of planning and housing data by the local authorities in order to provide a consistent and robust evidence base for housing policy formulation.*	The development of new *statutory guidelines and standardised methodologies will not give rise to likely significant effects on European Sites. No information is provided on the nature of the guidelines but it is recommended that they reflect the recent case law in relation to Appropriate Assessment and provide practical tools for planning authorities to complete their statutory obligations under the Planning and Development Act and the Birds and Natural habitats Regulations. Furthermore it is recommended that guidelines on site and route selection which identifies where and how European Sites should be considered be developed to support decision making.*
39	*A 'Housing Need Demand Assessment' (HNDA) is to be undertaken for each Local Authority Area in order to correlate and accurately align future housing requirements. The HNDA is:* ▪ *to be undertaken by Local Authorities with coordination assistance to be provided by the Regional Assemblies, particularly where inter-county and inter-regional settlement interactions are to be planned for and managed.* ▪ *to primarily inform housing policies, housing strategies and associated land use zoning policies as well as assisting in determining where new policy areas or investment programmes are to be developed.* ▪ *to be supported, through the establishment of a coordination and monitoring unit to assist Local*	While the development of a *Housing Need Demand Assessment will not have direct impacts on European Sites it is acknowledged that it will inform housing policy at lower tiers of planning. As such an approach which looks holistically at the land use zoning would benefit protection of European Sites more so than mitigation post decision making. The DHPLG will develop a set of zoning criteria to inform Local Authorities on the best approach to avoid unnecessary impacts on* the receiving environment.

NPO Ref.	Proposed National Policy Objective	Impact Assessment
	Authorities and Regional Assemblies in the development of the HNDA (DHPCLG, Regional Assemblies and the Local Authorities). This will involve developing and coordinating a centralised spatial database for Local Authority Housing data that supports the HNDA being undertaken by Local Authorities.	

6.4.8 Proposed Policy Measures for Realising our Island and Marine Potential (Chapter 6)

This policy area provides details on the growing maritime economy and the planning processes needed to effectively drive development and management. The key messages are:

- Ireland's ocean economy has grown from 1.2. billion to over €1.4 billion[17] in just a few years and is performing on average better than the general economy;
- Ireland 2040's aim is to double the value of Ireland's ocean wealth by 2030 and more beyond; and
- To fully unleash the potential of our marine and terrestrial development, a radical new streamlined and integrated planning process is to be introduced to drive effective management of our marine areas and land-sea interface and avoid incompatible developments and activities.

It is important to realise that there is spatial overlap between the Water Framework Directive (WFD) and the Marine Strategy Framework Directive (MSFD). In order to adequately support to the continued development of the maritime sector and incorporate environmental protection, this policy area should have regard to both national River Basin Management Planning (RBMP) as well Maritime Spatial Planning (MSP), noting the requirement to achieve Good Environmental Status under the Marine Strategy Framework Directive (MSFD).

National policy also aims to address climate changes and rising sea levels, noting the issues of coastal erosion and flooding. It will be important to encourage development, particularly residential, away from coastal areas where possible. It will be critical to not just adapt to climate change but to mitigate through good planning policy.

This policy area also highlights the need to support offshore renewable energy development, e.g. through the Offshore Renewable Energy Development Plan and any successor plans with a view to enhancing grid connectivity, both domestic and international. The development of any renewable energy project, both onshore and offshore, has the potential to negatively impact on BFF through land use change/ changes to the seabed, changes to water quality and loss of soil/ seafloor.

[17] Socio-Economic Marine Research Unit (November 2011) Ireland's Ocean Economy Report.

Table 6.6 – National Policy Objectives: Realising our Island and Marine Potential (Chapter 6)

NPO Ref.	Proposed National Policy Objective	Impact Assessment
40	*Regional and local development plans will take account of and integrate relevant maritime spatial planning issues.*	EU Directive 2014/89/EU establishing a framework for maritime spatial planning and this has been transposed into Irish law. Maritime spatial plans must be in place by 2021. No potential likely significant effects to European Sites from this policy.
41	*To support the growth and development of the maritime economy, particularly in remote coastal communities and islands.*	Many coastal communities are located within and adjacent to European Sites. As such, any increases in population or encouragement of investment and jobs growth in coastal areas has the potential for negative impacts on European Sites through: land use change from associated development (residential, commercial, industrial or from associated services provision), disturbance of habitats/ species from increased populations and related employment opportunities, disruption to habitats/ species from fragmentation or interruption of migration routes/ territories from supporting terrestrial and marine infrastructure (e.g. port and harbour development). Any project or development will be subject to AA screening in line with planning.
42	*To ensure that the strategic development requirements of Tier 1 and Tier 2 Ports are considered and addressed as part of the Regional Spatial and Economic Strategy (RSES) and that any concurrent or subsequent metropolitan area or city/ county development plans and strategic plans for the Tier 1 and Tier 2 ports are aligned to ensure the effective growth and sustainable development of the city regions.*	No details of the strategic development requirements of Tier 1 and Tier 2 ports are provided. However it is noted that many of the Tier 1 and Tier 2 ports in Ireland are within or adjacent to European Sites and as such any development must consider the potential to impact on the integrity of the site, alone or in combination, in view of the conservation objectives of the site. The development of strategic plans for the ports must be subject to AA.
43a	*To ensure that Ireland's coastal resource is managed to sustain its physical character and environmental quality.*	No potential likely significant effects to European Sites from this policy.
43b	*In line with the collective aims of national policy regarding climate adaptation, to address the effects of sea level changes and coastal flooding and erosion and to support the implementation of adaptation responses in vulnerable areas.*	No potential likely significant effects to European Sites from this policy.
44	*To support, within the context of the Offshore Renewable Energy Development Plan (OREDP) and its successors, the progressive development of Ireland's offshore renewable energy potential, including domestic and international grid connectivity enhancements.*	Offshore renewable energy development has significant potential to impact on European Sites both offshore and as a result of landfall in coastal areas. Impacts relate to habitat loss and disturbance, disturbance of breeding and feeding grounds for birds and marine fauna within and around the European Sites, collision with infrastructure and pollution from marine vessels. The implementation of the mitigation measures

NPO Ref.	Proposed National Policy Objective	Impact Assessment
		for the OREDP should be reviewed to determine status and also effectiveness to inform any successor plans and the AA which will be required for those successors.

6.4.9 Proposed Policy Measures for Working With Our Neighbours (Chapter 7)

This policy area focusses on cooperation with Northern Ireland in order to grow key economic corridors, coordinate infrastructure investment and the responsible management of the shared environment. The key messages include:

- As an island of 8 million people sharing two major cities and having interdependent infrastructure, there are major benefits from a practical and coordinated approach to our development on the island and with neighbours; and
- By 2040, there could be 2 and a half million people living along the Dublin to Belfast Corridor as the largest economic agglomeration, and a driver of economic growth.

Table 6.7 – National Policy Objectives: Working with our Neighbours (Chapter 7)

NPO Ref.	Proposed National Policy Objective	Impact Assessment
45	*To work with the relevant Departments in Northern Ireland for mutual advantage in areas such as spatial planning, economic development and promotion, co-ordination of social and physical infrastructure provision and environmental management.*	This policy is broadly positive as it focuses on cooperative planning and coordination in relation to the shared environment. As such no potential likely significant effects to European Sites from this policy.
46	*In co-operation with relevant Departments in Northern Ireland, to further support and promote the economic potential of the Dublin- Belfast Corridor and enhance its international visibility.*	The Dublin Belfast Corridor is in proximity to a number of European Sites and to support and promote economic activities has potential to impact on these sites, alone or in combination. Sites include the River Nanny Estuary SPA, the Boyne Valley SPA and Dundalk Bay SAC. Depending on the nature of the economic potential this could give rise to water quality issues and human disturbance among other pressures. Suggest the word economic is replaced by "sustainable" to acknowledge that balance is needed with economics if the environment is to be fully protected. Projects will be subject to planning and AA as part of any planning application.
47	*To promote the development of the North West of Ireland as interlinked areas of strategic importance and a key growth centre in the North-West region, through collaborative structures and a joined-up approach to spatial planning.*	Improvements to and coordinated spatial planning could potentially lead to increased protection of European Sites. However such an objective has the potential to impact on adjoining European Sites such as Lough Swilly SAC and the River Finn SAC in particular. Regional planning

NPO Ref.	Proposed National Policy Objective	Impact Assessment
		will need to consider the cumulative effects of any collaborative structures and the carrying capacity of the environmental receptors in terms of water quality, air quality, human disturbance and land use change and habitat loss.
48	*To support enhanced public transport connectivity between large urban areas in Ireland and Northern Ireland.*	The delivery of enhanced public transport connectivity has potential for direct and indirect negative impacts on European Sites. This policy considers increased connectivity through bus and rail services, allied to development and promotion of cross-border blueways, greenways and walking. See **Section 6.5** for a discussion of the transport impacts associated with the NPF. Avoidance of significant effects is the best form of mitigation and as such any public transport network development must be accompanied by a robust route selection which has avoidance of impacts on European Sites and their habitats and species as a priority. Project specific mitigation may also be required.
49	*Strengthen all-island energy infrastructure and interconnection capacity to enhance the security of electricity supply.*	There is the potential for likely significant effects to European Sites in relation to ensuring future capacity of the all-island electricity grid. See **Section 6.5** for a discussion of the energy and utilities impacts associated with the NPF. Avoidance of significant effects is the best form of mitigation and as such any public transport network development must be accompanied by a robust route selection which has avoidance of impacts on European Sites and their habitats and species as a priority. Project specific mitigation would also be required.
50	*Develop a stable, innovative and secure digital communications and services infrastructure on an island basis.*	There is the potential for likely significant effects to European Sites in relation to ensuring communications infrastructure, as it is unclear whether this policy refers to upgrading for instance the existing broadband/ fibre network, or developing new infrastructure. See **Section 6.5** for a discussion of the energy and utilities impacts associated with the NPF. Avoidance of significant effects is the best form of mitigation and as such any public transport network development must be accompanied by a robust route selection which has avoidance of impacts on European Sites and their habitats and species as a priority. Project specific mitigation would also be required.
51	*To support the coordination and promotion of all-island tourism initiatives through continued cooperation between the relevant tourism agencies and Tourism Ireland.*	It is noted that tourism can both benefit and impact on European sites, depending on the nature of the tourism. If fully cognisant of the European Sites and the reasons they have neem designated, the can and do form a focus for tourism potential such as the interpretive centres related to Clara Bog.

NPO Ref.	Proposed National Policy Objective	Impact Assessment
		However, increased visitor pressure can impact negatively through trampling, disturbance, noise, habitat loss for supporting infrastructure, littering etc. Similar to the Wild Atlantic Way, large tourism initiatives must consider SEA and AA prior to implementation to offset any negative impacts.
52	*Ensuring effective management of shared landscapes, heritage, water catchments, habitats species and trans-boundary issues in relation to environmental policy.*	This policy is broadly positive as it deals with management of the shared environment. As such no potential likely significant effects to European Sites from this policy.
53	*In co-operation with the United Kingdom Government and devolved Governments of Northern Ireland, Scotland and Wales, Ireland will support mutually beneficial development in the areas of spatial planning and infrastructure planning and other related areas.*	Infrastructural planning of the marine environment is considered positive in terms of cooperation between governments but there is potential for negative impacts on European Sites where spatial planning does not adequately recognise European Sites as core integrated features rather than some to be avoided/ mitigated at a later stage. Of particular note for this NPO is the potential for maritime spatial planning, a particularly challenging area due to the multiple jurisdictions and the competing stakeholders, some in conflict with marine European Sites.

6.4.10 Proposed Policy Measures for Realising our Sustainable Future (Chapter 8)

This section of the draft NPF focusses on the transition to a low-carbon, climate-resilient and environmentally sustainable economy by 2050. The key messages of this policy area relate to:

- In global terms, we are a small country with a relatively small population and yet our greenhouse gas emissions per person are much higher (45%) than EU averages at 12.6 tonnes of CO_2 equivalent per capita;
- There will be a national transition to a competitive low carbon, climate resilient and environmentally sustainable economy by the year 2050; and
- Our transition will be achieved through actions from government to business, communities and the citizen both harnessing our country's prodigious renewable energy potential and electrification of much of our mobility and energy systems.

Table 6.8 – National Policy Objectives: Realising Our Sustainable Future (Chapter 8)

NPO Ref.	Proposed National Policy Objective	Impact Assessment
54	*That the planning system is responsive to our national environmental challenges and ensures that development occurs within environmental limits having regard to the requirements of all relevant environmental legislation and promotes the sustainable management of our natural*	This will have broadly positive effects as it commits *that development occurs within environmental limits having regard to the requirements of all relevant environmental legislation and promotes the sustainable management of our natural capital*. No potential

NPO Ref.	Proposed National Policy Objective	Impact Assessment
	capital.	likely significant effects to European Sites from this policy.
55	*To support the circular and bio economy, through greater efficiency in renewable and resources and land management and by reducing the rate of land use change from urban sprawl and new development.*	This will have broadly positive effects as it commits *to reducing the rate of land use change from urban sprawl and new development.* No potential likely significant effects to European Sites from this policy.
56	*Reduce our carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation and adaptation objectives as well as targets for greenhouse gas emissions reductions.*	This will have broadly positive effects as it commits *to integrating climate action into the planning system and tackling climate change which is a significant pressure on the Natura 2000 network.* No potential likely significant effects to European Sites from this policy.
57	*To promote renewable energy generation at appropriate locations within the built and natural environment to meet objectives towards a low carbon economy by 2050.*	This policy is positive in principle through the focus on renewable energy generation which is needed to address climate change, one of the major challenges for biodiversity and the Natura 2000 network. However there is potential for direct and indirect negative impacts on European Sites as a result of the construction and operation of renewable energy infrastructure (in the terrestrial and marine space) which can arise and will depend on the location (terrestrial, maritime). See **Section 6.5** for a discussion of potential energy impacts in relation to the NPF.
58	*Ensure flood risk management informs place making by avoiding inappropriate development in areas at risk of flooding and integrate sustainable water management solutions (such as SUDS, non-porous surfacing and green roofs) to create safe places in accordance with the Planning System and Flood Risk Assessment Guidelines for Local Authorities.*	No potential likely significant effects to European Sites from this policy.
59	*To promote the integration of Green Infrastructure (GI) and ecosystem services including landscape, heritage and biodiversity in the preparation of statutory land use plans.*	This will have broadly positive effects as it commits *to* integration of GI and ecosystem services. No potential likely significant effects to European Sites from this policy.
60	*Sustainably manage the quality of our water resources to support and deliver the growth strategy for Ireland 2040 and a healthy society.*	This will have broadly positive effects as it commits *to* the sustainable management of the water resource. No potential likely significant effects to European Sites from this policy.
61	*Improve air quality and help prevent people being exposed to unacceptable levels of pollution in our urban and rural areas through integrated land use and spatial planning that supports public transport, walking and cycling as more favourable modes of transport to the private car, the promotion of energy efficient buildings and homes, green infrastructure planning and innovative design solutions.*	This will have broadly positive effects as it commits *to improving air quality. Although focussed at human health It is noted that air quality impacts from nitrogen deposition associated particularly with transport can negatively impact on habitats and species . This is further discussed in* ***Section 6.5.***
62	*Promote the pro-active management of noise where it would have significant adverse impacts*	No potential likely significant effects to European

NPO Ref.	Proposed National Policy Objective	Impact Assessment
	on health and quality of life and support the aims of the Environmental Noise Regulations through national planning guidance and Noise Action Plans.	Sites from this policy.

6.4.11 Proposed Policy Measures for Investing in Ireland 2040 – Implementation (Chapter 9)

This policy area highlights the national priorities to support Ireland's strategic development. The key messages are:

- New approaches to planning and new governance arrangements for settlements will support coordination and leadership at a regional and local level to support cities large towns and land management;
- The delivery of national policy objectives and strategy outcomes will be underpinned and driven forward through close alignment with a new National Investment Plan, including provision of a smart growth fund for urban and rural areas;
- Ireland 2040 will be placed on a statutory footing under the provisions of draft legislation including being subject to cyclical review in line with the wider review provisions for planning at local authority and regional levels; and
- Independent monitoring of the overall effectiveness of the implementation of Ireland 2040 will be undertaken.

Table 6.9 – National Policy Objectives for Investing in Ireland 2040 - Implementation (Chapter 9)

NPO Ref.	Proposed National Policy Objective	Impact Assessment
63	*Provision will be made for metropolitan area strategic plans to be prepared for the Dublin, Cork, Limerick, Galway and Waterford Metropolitan areas and in the case of Dublin and Cork, to also address the wider city region, by the appropriate authorities in tandem with and as part of the relevant RSES.*	No potential likely significant effects to European Sites as this relates to preparation of *metropolitan area strategic plans.* It is noted these plans will themselves be subject to AA ensuring a tiered assessment process which evolves as details become clearer down the planning hierarchy as outlined in Chapter 10 of the draft NPF.
64	*Provision will be made for urban area plans for larger towns and their environs with a population of more than 15,000 people. Provision will also be made for joint urban area plans and joint local area plans where a town and environs lies within the combined functional area of more than one local authority.*	No potential likely significant effects to European Sites as this relates to preparation of *urban area plans.* It is noted these plans will themselves be subject to AA ensuring a tiered assessment process which evolves as details become clearer down the planning hierarchy as outlined in Chapter 10 of the draft NPF.
65	*City/ county development plan core strategies shall comprehensively identify, co-ordinate and balance targeted population and housing growth in cities, large and small towns, rural settlements and in the open countryside for the relevant*	No potential likely significant effects to European Sites as this relates to preparation of *core strategies.* It is noted these cores strategies will themselves be subject to AA as part of the overall CDP ensuring a tiered assessment process which

NPO Ref.	Proposed National Policy Objective	Impact Assessment
	planning authority area and this will be supported by a standardised methodology for the preparation of core strategies.	evolves as details become clearer down the planning hierarchy as outlined in Chapter 10 of the draft NPF.
66	*Statutory arrangements between spatial and transport planning in the Greater Dublin Area will be extended to other cities.*	No potential likely significant effects to European Sites. Better alignment of spatial and transport planning in cities outside Dublin is a broadly positive objective. It affords better opportunity for cumulative and in combination effects to be acknowledged and addressed including in accompanying AA.
67	*Planning authorities will be required to apply a standardised, tiered approach to differentiate between i) zoned land that is available for development, ii) zoned land that requires further specified investment in basic infrastructural services for development to be realised and iii) zoned land unlikely to be serviced within the life of the relevant plan;* *When considering zoning land for development purposes that requires further investment in basic infrastructural services, planning authority will make a reasonable estimate of the full cost of delivery of the specified services and identify the responsible delivery agency(ies);* *When considering zoning land for development purposes that is unlikely to be serviced within the life of the relevant plan, planning authority will review the status of such lands.*	No potential likely significant effects to European Sites as this relates to application of a standardised approach to zoning of lands. Similar to the preparation of *core strategies, it is noted that* these zonings will be subject to AA as part of the overall CDP ensuring a tiered assessment process which evolves as details become clearer down the planning hierarchy as outlined in Chapter 10 of the draft NPF.
68	*When zoning land for development, planning authorities will apply a specified standardised approach in establishing an order of priority for development of land taking account of proper planning and sustainable development, and in the case of adjoining interdependent landholdings evidence of landholder commitment to necessary co-operation to release lands for development.* *Planning authorities will use compulsory purchase powers to facilitate the delivery of enabling development services to prioritised zoned lands, to accommodate planned growth and development.* *Infrastructure delivery agencies will focus on the delivery of enabling development services to prioritised zoned lands that deliver planned growth and development.*	
69	*A more effective strategic and centrally managed approach will be taken to realise the development potential of the overall portfolio of state owned and/or influenced lands in the five main cities and potentially other major urban areas as a priority.*	No potential likely significant effects to European Sites as this relates to application of a *centrally managed approach to development potential* of state owned lands

6.4.12 National Strategic Outcomes (NSO) Chapter 9

National Strategic Outcomes for consideration in developing the National Investment Plan are outlined in chapter 9 of the draft NPF. This is presented as an indicative outline at this point.

The purpose of the Smart Growth Urban Initiative will be to achieve sustainable growth in Ireland's five cities and in other urban centres (>1,500 population). Departments and local authorities will be invited to make joint competitive bids for seed funding that will leverage other public and private investment based on proposals that meet some or all of the following criteria:

National Strategic Outcome: Compact, Smart Growth

NSO1.1 - Smart Growth Urban	Impact Assessment
Enable urban infill development that would not otherwise occur;	No potential likely significant effects to European Sites as this relates to a set of criteria. Broader issues related to construction, land use change economy etc. are discussed in **Section 6.5.**
Improve 'liveability' and quality enabling greater densities of development to be achieved;	
Encourage economic development and job creation, by creating conditions to attract internationally mobile investment and opportunities for indigenous enterprise growth;	
Building on existing assets and capacity to create critical mass and scale as growth drivers;	
Improve accessibility to and between centres of mass and scale and better integration with their surrounding areas;	
Ensure transition to more sustainable modes of travel (walking, cycling, public transport) and energy consumption (efficiency, renewables) within an urban context;	
Encourage labour mobility to support employment led growth, including affordable housing, education/ skills development and improved community and family services including childcare.	

Through the Smart Growth Rural Initiative, sustainable growth in Ireland's small towns (<10,000) and rural areas will also be delivered through bid based proposals by Departments and local authorities meeting some or all of the criteria below:

National Strategic Outcome: Smart Growth Rural and Urban

NSO1.2	*Smart Growth Rural*	Impact Assessment
1)	*Enhance the attractiveness, viability and vibrancy of smaller towns and villages in rural areas as a means of achieving more sustainable patterns and forms of development.*	No potential likely significant effects to European Sites as this relates to a set of criteria. Broader issues related to construction, land use change economy etc. are discussed in **Section 6.5.**
2)	*Ensure transition to more sustainable modes of travel (walking, cycling, public transport) and energy consumption (efficiency, renewables)*	

NSO1.2	Smart Growth Rural	Impact Assessment
	within smaller towns and villages.	
3)	*Encourage and attract entrepreneurship and innovation in the context of the rural economy and its continuing sustainable diversification, particularly where low carbon outputs can be achieved.*	
4)	*Cater for a niche or specialised development that is intrinsically required to be located in a rural setting and has wider benefits for the local rural and regional economy.*	
5)	*Cross boundary collaboration at county and regional level to achieve more sustainable outcomes for rural communities e.g. applicable to shared settlements, landscapes and amenities as well as lands in state ownership.*	
6)	*Enhance co-ordination of various funding streams for rural development that supports the place making policies of Ireland 2040.*	

National Strategic Outcome: Enhanced Regional Accessibility

NSO Ref.	Proposed National Strategic Outcome	Impact Assessment
2.1	***Inter-Urban Roads***	
Maintaining the strategic capacity and safety of the national roads network including planning for future capacity enhancements;		Potential for likely significant effects to European Sites in relation to ensuring future capacity of the national road network. See **Section 6.5** for discussion of transportation impacts associated with the NPF.
Improving average journey times targeting an average inter-urban speed of 90kph:		
Enabling more effective traffic management within cities and re-allocation of inner city road-space in favour of bus-based public transport services and walking / cycling facilities ;		No potential likely significant effects to European Sites as this relates to *traffic management.*
Advancing orbital traffic management solution examples including the Galway Ring Road, Limerick Northern Distributor Road (LNDR) and M8/ N25/ N40 Dunkettle Junction upgrade (approved) in Cork.		Potential for likely significant effects to European Sites. See **Section 6.5** for discussion of transportation impacts associated with the NPF. All of the named routes will be subject to project level AA as part of planning.
2.2	***Accessibility to the Northwest***	
Upgraded access to the Letterkenny-Derry City Area utilising existing routes (N2/N14/ A5);		Potential for likely significant effects to European Sites. See **Section 6.5** for discussion of transportation impacts associated with the NPF. All of the named routes will be subject to project level AA as part of planning.
Upgrade northern sections of the N4 route and sections of the N3/M3 national primary route;		
Progressive development of the Atlantic Economic Corridor from Galway through to Sligo and Letterkenny by completion of the M17/M18 (Gort to Tuam), upgrading sections of the N17 north of Tuam, where required and upgrading the N15/N13 link.		

National Strategic Outcome: High Quality International Connectivity

NSO Ref.	Proposed National Strategic Outcome	Impact Assessment
3.1	***Airports***	
The development of additional runway and terminal facilities such as the second runway for Dublin Airport for which planning permission has been approved;		The ongoing development and growth at Dublin Airport has the potential to impact on European Sites as a result of emission to air and water and contributions to climate change. See **Section 6.5** for discussion of transportation impacts associated with the NPF. *The development of additional runway and terminal facilities will be subject to AA.*
Enhancing land-side access and particularly in public transport terms such as the Metro-North project in Dublin; and		
Careful land-use management of land side areas to focus on the current and future needs of the airports.		
3.2	***Ports***	
Improve land transport connections to the major ports including:		All of the ports mentioned in the NPF are related to European Sites which are encompassed within them or are directly adjacent. As such these NSO has potential for negative impacts on European Sites. See **Section 6.5** for discussion of transportation impacts associated with the NPF.
Facilitating the growth of Dublin Port through greater efficiency, limited expansion into Dublin Harbour and improved road access, particularly to/from the southern port area.		
Enhancing road connectivity to Shannon-Foynes Port, including local bypasses.		
Improving access to Ringaskiddy Port		

National Strategic Outcome: Sustainable Mobility

NSO Ref.	Proposed National Strategic Outcome	Impact Assessment
4	***Public Transport***	
Develop attractive public transport alternatives to car transport to reduce congestion and emissions and enable the transport sector to cater for the demands associated with longer term population and employment growth in a sustainable manner through the following measures:		Potential for likely significant effects to European Sites. See **Section 6.5** for discussion of transportation impacts associated with the NPF. All of the named routes will be subject to project level AA as part of planning.
To strengthen public transport connectivity between cities and large growth towns in Ireland and Northern Ireland with improved services and reliable journey times		
Deliver the key public transport objectives of the Transport Strategy for the Greater Dublin Area 2016-2035 by investing in projects such as New Metro North, DART Expansion Programme, BusConnects in Dublin and key bus based projects in the other cities and towns;		
Provide public transport infrastructure and services to meet the needs of smaller towns, villages and rural areas;		
Develop a comprehensive network of safe cycling routes in		

NSO Ref.	Proposed National Strategic Outcome	Impact Assessment
	metropolitan areas to address travel needs and to provide similar facilities in towns and villages where appropriate.	

National Strategic Outcome: A strong Digital Economy

NSO Ref.	Proposed National Strategic Outcome	Impact Assessment
5	***Communications***	
	Implementation of the National Broadband Plan.	No potential likely significant effects to European Sites in relation to delivery of the National Broadband Plan subject to implementation of the measures included in the AA which is being undertaken by DCCAE, the competent authority for the *Plan*.
	Enhancing international fibre communications links including full interconnections between the fibre networks in Northern Ireland and the Republic of Ireland;	
	Promotion of Ireland as a sustainable international destination for ICT infrastructure such as data storage and associated economic activities;	
	Promoting our cities as demonstrators of 5G information and communications technology.	

National Strategic Outcome: Empowered Rural Communities

NSO Ref.	Proposed National Strategic Outcome	Impact Assessment
6	***Rural Development***	
	Implementation of actions outlined in the Action Plan for Rural Development;	The Action Plan for Rural Development is a government initiative plan to ensure the success of vibrant, rural communities across Ireland. This is to be achieved by the implementation of 276 actions. While it is acknowledged that many of the objectives in the Action Plan are consistent with the objectives outlined in the NPF, it is noted that there is no record of an AA. The *Action Plan for Rural Development* and it subsequent reviews should be subject to AA prior to implementation, if this has not already been completed.
	Progressive development of rural broadband under the National Broadband Plan;	No potential likely significant effects to European Sites as this relates to delivery of the National Broadband Plan and will be subject to implementation of the measures included in the AA which is being undertaken by DCCAE, the competent authority for the *Plan*.
	Implementation of a targeted smart growth initiative to enable opportunities to secure the regeneration and re-purposing of rural towns and villages weakened by the	No potential likely significant effects to European Sites.

NSO Ref.	Proposed National Strategic Outcome	Impact Assessment
	structural changes in rural economies and settlement patterns;	
	Investment in maintaining regional and local roads and strategic road improvement projects in rural areas to ensure access to critical services such as education, healthcare and employment;	No potential likely significant effects to European Sites.
	Identify 'lifeline routes' to ensure enhanced connectivity is achieved for more remote parts of Ireland to access critical services such as education, healthcare and employment.	No potential likely significant effects to European Sites.
	Investment in greenways and blueways as part of a nationally coordinated strategy;	Potential for likely significant effects to European Sites. See **Section 6.5** for discussion.
	Ongoing support through a well-funded Common Agricultural Policy for the Agri-Food sector.	Potential for likely significant effects to European Sites. See **Section 6.5** for discussion.

National Strategic Outcome: Enhanced Urban Amenity

NSO Ref.	Proposed National Strategic Outcome	Impact Assessment
7	***Green Networks and Infrastructure***	
	Metropolitan Area Strategic Plans will be required to include a metropolitan parks and amenity strategy;	No potential likely significant effects to European Sites. I*t is noted that* the MASP will be subject to AA ensuring a tiered assessment process which evolves as details become clearer down the planning hierarchy as outlined in Chapter 10 of the draft NPF.
	Implementation of planning and transport strategies for the five cities and other urban areas will be progressed with a major focus on improving walking and cycling routes including continuous urban greenway networks and targeted measures to enhance permeability and connectivity.	Potential likely significant effects to European Sites as this relates to *planning and transport strategies for the five cities. See* ***Section 6.5*** *for discussion on impacts from transport.*
	Smart Growth initiatives will seek to encourage transformational public realm initiatives to give city and town centre areas back to citizens, encouraging greater city and town centre living, enhanced recreational spaces and attractiveness from a cultural, tourism and promotional perspective;	No potential likely significant effects to European Sites.
	Strategies to further support urban active travel will be developed and implemented.	Potential likely significant effects to European Sites *See* ***Section 6.5*** *for discussion on impacts from transport.*

National Strategic Outcome: Transition to Sustainable Energy

NSO Ref.	Proposed National Strategic Outcome	Impact Assessment
8	***Green Energy***	
Deliver 40% of our electricity needs from renewable sources by 2020 with a strategic aim of in excess of 50% by 2030 and more by 2040 and beyond using wind, wave, solar, biomass and hydro sources.		Provision of renewable infrastructure has potential to impact on European Sites as a result of collisions with avifauna, water pollution as a result of release of suspended solids, disturbance of fauna and loss of habitat. See **Section 6.5** for discussion on energy infrastructure.
Reinforce the existing transmission network in the west to facilitate planned growth and the transfer of renewable energy generated to the major demand centres in the east.		
Strengthen energy security and resilience to support an island population of 8 million people through effective north-south electricity grid interconnection as well exploring other interconnection options in the longer term to 2040 such the 'Celtic Interconnector' with France.		
Consideration of carbon neutral electricity generation that would be facilitated through harnessing carbon capture and storage (CCS), using the Kinsale Head Gas Field.		
National Interconnector (Subsea Ring around Ireland (provides connection to EU via the proposed Celtic Interconnector) or other solutions offer the potential to connect Ireland to the EU electricity grid System.		
Roll out of the National Smart Grid Plan enabling new connections, grid balancing, energy management and micro grid development.		

National Strategic Outcome: Sustainable Management of Water and Other Resources

NSO Ref.	Proposed National Strategic Outcome	Impact Assessment
9.1	***Water***	
Coordinate EU Flood Directive and Water Framework Directive implementation and statutory plans across the planning hierarchy, including national guidance on the relationship between the planning system and river basin management. Local authorities, DHPLG, OPW and other relevant Departments and agencies working together to implement the recommendations of the CFRAM programme will ensure that flood risk management policies and infrastructure are progressively implemented;		No likely significant negative impacts on European Sites. Integration and coordination of land use planning with WFD is considered positive. It is noted that the protected sites register under the WFD includes for European Sites.
Eliminate untreated discharges from settlements in the short term, while planning strategically for long term growth in tandem with Ireland 2040;		Water services investment is anticipated to improve water quality generally and this will have a positive impact on water dependant European Sites. However, in order to deliver infrastructure there is a need for construction or new or

NSO Ref.	Proposed National Strategic Outcome	Impact Assessment
		upgrade to existing services with associated construction related impacts. These impacts are broadly discussed in **Section 6.5**.
	Development of a new rural settlement approach coordinating Irish Water, local authority, developer and community led solutions to ensuring that sustainable water services solutions are progressively implemented.	No likely significant negative effects on European Sites. Integration and coordination of land use planning is considered positive.
	A new long term water supply source for the Eastern and Midland Region, which includes the Dublin Water Supply Area (DWSA), is needed by the mid-2020s, to provide for projected growth up to 2050 and contribute to resilience and security of supply for the region. This requires infrastructure provision to be guided and prioritised in a manner that can benefit the greatest number of areas within the country possible;	Water services investment is anticipated to improve water quality generally and this will have a positive impact on water dependant European Sites. However, in order to deliver infrastructure there is a need for construction or new or upgrade to existing services with associated construction related impacts. These impacts are broadly discussed in **Section 6.5**. Further it is noted that proposals for a new water supply for the Dublin Region have been in development for a number of years and a strategy has undergone SEA and AA previously. A project is now in development and is being subject to EIA and AA. Any specific mitigation measures arising from those processes will be a condition of any planning should it be granted.
	Implement the Greater Dublin Strategic Drainage Study, through enlarging capacity in existing wastewater treatment plants (Ringsend) and providing a new treatment plant in North County Dublin - known as the Greater Dublin Drainage Project (GDD) Project;	Potential for likely significant negative effects on European Sites. In both cases, outfalls will be directly into or through European Sites. The GDD project is currently undergoing assessment and an NIS is being prepared which includes consideration of marine mammals, protected bird populations and the supporting terrestrial and marine features relevant to the conservation objectives of the sites in question. The application of AA to these projects will ensure negative effects can be avoided.
	Improve storm water infrastructure to improve sustainable drainage and reduce the risk of flooding in the urban environment.	Water services investment is anticipated to improve water quality generally and this will have a positive impact on water dependant European Sites. However, in order to deliver infrastructure there is a need for construction or new or upgrade to existing services with associated construction related impacts. These impacts are broadly discussed in **Section 6.5**.
	Increase compliance with the requirements of the Urban WW Directive from 39% today to 90% by the end of 2021, to 99% by 2027 and to 100% by 2040.	
	Reduce leakage, minimising demand for capital investment.	No likely significant negative impacts on European Sites as a result of reducing leakage. It is noted that proposals to add orthophosphate to the drinking water supply to counteract the health effects of lead pipes in the network, will see increases in phosphate in the receiving environment. One of the possible pathways considered in the AA for the IW National Lead Mitigation Plan was through leakage. Although accounted for in the bespoke assessment

NSO Ref.	Proposed National Strategic Outcome	Impact Assessment
		methodology being applied to all potential additions of orthophosphate, any reduction in leakage will be positive. Water services investment is anticipated to improve water quality generally and this will have a positive impact on water-dependant European Sites. However, in order to deliver infrastructure there is a need for construction or new or upgrade to existing services with associated construction related impacts. These impacts are broadly discussed in **Section 6.5**.
9.2	***Waste***	
RSESs and the core strategies of MASPs and city and county plans will support national and regional waste policy and efficient use of resources;		No likely significant effects on European Sites are anticipated. The three *Regional Waste Management Plans and the 3rd National Hazardous Waste Management Plan have been subject to AA and mitigation where required has been included.*
District heating networks will be developed where technically feasible to assist in meeting renewable heat targets and reduce Ireland's GHG emissions;		No likely significant effects on European Sites are anticipated.
Development of necessary and appropriate hazardous waste management facilities to avoid the need for treatment elsewhere.		The development of modern *hazardous waste management facilities which are subject to the mitigation contained in the AA for the Regional Waste Management Plans and the 3rd National Hazardous Waste Management Plan will not have impacts on any European Sites.*

National Strategic Outcome: Access to Quality Childcare, Education and Health Services

NSO Ref.	Proposed National Strategic Outcome	Impact Assessment
10.1	***Education***	
The provision of additional investment in the schools sector is required to keep pace with demographic demand and to manage increasing building and site costs. Provision of new and refurbished schools on well-located sites within or close to existing built-up areas, to meet demographic growth and the diverse needs of local populations;		No significant effects on European Sites are anticipated as a result of this strategic outcome. Where a requirement for future infrastructure provision is identified at a regional or local level, AA will be required.
The expansion and consolidation of third level facilities at locations where this will further strengthen the capacity of those institutions to deliver the talent necessary to drive economic and social development in the regions. The consolidation of the DIT campus at Grangegorman is a critical flagship infrastructural project for the higher		

NSO Ref.	Proposed National Strategic Outcome	Impact Assessment
	education sector;	
	Investment in higher and further education and training will be a key driver of Ireland's competitiveness. The development of programmes for life-long learning, especially in areas of education and training where skills gaps are identified by employers and the further and higher education and training system working together through Regional Skills Fora in responding to the skills needs of their regions.	
10.2	***Acute Hospital Services***	
	Delivering improved acute hospital services through the implementation of strategies and policies such as the National Maternity Strategy and the National Cancer Control Programme, and a wide range of programmes and projects including: ▪ *Paediatric strategy to provide a national paediatric healthcare service through the construction of the new National Children's Hospital and associated satellite care units* ▪ *Maternity strategy including co-location of the National Maternity Hospital and other standalone maternity hospitals to acute hospital campuses* ▪ *Building additional capacity in line with identified service needs* ▪ *Reconfiguration of acute services within hospital groups* ▪ *Expansion of the Ambulance fleet and expanded ambulance bases* ▪ *National Cancer Control Programme – provision of oncology day units on a national basis*	No impacts on European Sites are anticipated as a result of this strategic outcome. Where a requirement for future infrastructure provision is identified at a regional or local level, AA will be required.
10.3	**Healthcare Services in the Community**	
	Facilitating the transformation of healthcare delivery by increasing the capacity of primary care, including: ▪ *Provision of primary care centres on a national basis to match population changes including new builds and refurbishments of existing buildings;* ▪ *Expansion of community diagnostics and minor surgery*	No impacts on European Sites are anticipated as a result of this strategic outcome. Where a requirement for future infrastructure provision is identified at a regional or local level, AA will be required.
10.4	**Integrated Health and Social Care Services**	
	Facilitate the transition of people across services, providing multi-disciplinary care at the lowest level of complexity close to where people live. Focus on improving access to primary and community care services, including: *Mental Health – A Vision for Change* ▪ *Development of the National Forensic Mental Health Services Hospital*	No impacts on European Sites are anticipated as a result of this strategic outcome. Where a requirement for future infrastructure provision is identified at a regional or local level, AA will be required.

NSO Ref.	Proposed National Strategic Outcome	Impact Assessment
	▪ *Replacement and provision of additional Mental Health Units, Residential accommodation on a national basis* *Disability Services* ▪ *Redevelopment of the National Rehabilitation Hospital and establishment of Disability Rehabilitation Centres across the country* ▪ *Provision of Day Hospitals/Day care centres as part of Neuro strategy* ▪ *Reconfiguration of existing residential care facilities and support people with disabilities to live more independently away from congregated settings* *Services for Older People* ▪ *Replacement and upgrade of 90 Community Nursing Units and provision of additional step-down and long-stay accommodation*	

6.4.13 Proposed Policy Measures for Assessing Environmental Impact (Chapter 10)

This policy area highlights the environmental assessments have been carried out on the draft NPF. These assessments have been undertaken so the high-level impact of the proposed National Policy Objectives and National Strategic Outcomes on the environment can be evaluated and used to inform the direction of the National Planning Framework.

Table 6.10 - National Policy Objectives: Assessing Environmental Impact

NPO Ref.	Proposed National Policy Objective	Impact Assessment
70	*Ensure that all plans, projects and activities requiring consent arising from the National Planning Framework are subject to the relevant environmental assessment requirements including SEA, EIA and AA as appropriate.*	No potential for significant effects on European sites with this policy. The draft NPF has acknowledged concerns raised through the SEA and AA processes by the inclusion of this policy which expressly requires AA of *all plans, projects and activities requiring consent arising from the National Planning Framework. Furthermore, Chapter 10 of the NPF states that* all investigative and feasibility studies to be carried out to support decision making in relation to the NPF should also include an environmental appraisal which considers the potential effects on the wider environment, including specifically the Natura 2000 Network. At the project level, all applications for development consents for projects emanating from any policies that may give rise to likely significant effects on the environment will need to be accompanied by an Ecological Impact Assessment Report; and a

NPO Ref.	Proposed National Policy Objective	Impact Assessment
		Natura Impact Statement if deemed necessary under the relevant legislation (statutory document).

6.5 DISCUSSION OF KEY ISSUES ASSOCIATED WITH THE IMPLEMENTATION OF THE NPF

There are a number of recurring issues associated with the implementation of the policy objectives and actions outlined in the NPF. These broadly relate to construction of supporting infrastructure and stimulation of economic activity, particularly in rural areas. It is acknowledged that many of the potential impacts can be mitigated through careful siting and consideration of possible sensitivities as part of planning and/ or AA processes. Furthermore it is noted that the NPF, in Section 2.2 explicitly calls for any infrastructure projects arising from this Framework to be required to comply with the necessary legislation, regulations and requirements as they relate to SEA, EIA, Birds and Habitats Directives and Flooding. Applications for development consents for projects emanating from the policies contained in this Framework that may give rise to likely significant effects on the environment are required to be screened for appropriate assessment and may also need to be accompanied by one or more of the following, as relevant:

- An Environmental Impact Assessment Report if screened in for EIA;
- A Natura Impact Statement, if screened in for AA.
- An Ecological Impact Assessment Report.

6.5.1 Population Growth and Economic Development

The NPF is seeking to deliver population growth nationally in line with the following:

Table 6.11 – Targeted Patterns of City Population Growth

City or Town	Population 2016	Population Growth to 2040[18]		Target Population 2040
		% Range	People	
Dublin - City and Suburbs	1,173,000	20-25%	264,000	1,437,000
Cork - City and Suburbs	209,000	50-60%	115,000	324,000
Limerick - City and Suburbs	94,000	50-60%	524,000	146,000
Galway - City and Suburbs	80,000	50-60%	44,000	124,000
Waterford - City and Suburbs	54,000	50-60%	29,000	83,000

Source: Table 3.1, draft NPF.

The delivery of this will require construction of housing stock nationally, delivery of transport infrastructure to facilitate both public and private transport options, transmission of energy around the country, provision of key services including water and waste water and broadband and economic development across key sectors. All of these infrastructure requirements have the potential for significant effects on European Sites alone or in combination, as a result of construction-related effects.

[18] Urban population growth targets are based on the ESRI NPF projected growth rate, are at the midpoint of the range and are rounded to the nearest 1,000. The maximum point is 20% approximately higher than the minimum point to allow for flexibility and the possibility that targets may not be achieved in all locations. The initial focus of this twenty year Framework that will be subject to future review, is on the midpoint.

The main potential effects on European Sites arising from delivery of infrastructure would be:

- Direct habitat loss or destruction of European Sites if infrastructure/ developments were located within the Sites;
- Direct or indirect habitat fragmentation through loss of small patches of habitat within a larger European Site if infrastructure/developments were sited within the sites. This could also arise from loss of ecological corridors and connectivity, outside of European Sites but which support the functioning of the European Sites, such as loss of hedgerows, treelines or small wetlands through clearance of sites to construct infrastructure/developments.
- Direct habitat degradation e.g. from access of construction related machinery or trampling during construction or indirect habitat degradation e.g. thorough construction activities causing run-off of silt and resultant sedimentation and degradation to downstream aquatic habitats.
- *Ex-situ* species habitat loss as a result of infrastructure/ developments e.g. loss of Lesser Horseshoe roosting habitat in attics outside of SACs as a result of upgrades and regeneration of vacant housing stock.
- Destruction of species habitat within and outside of European Sites during construction/ upgrade/ regeneration works e.g. destruction of Otter holt along a watercourse due to machinery traversing over or in close proximity to the area e.g. along field drains or wet ditches.
- Barriers to movement of species as a result of new infrastructure/development or associated infrastructure e.g. roads;
- Direct or indirect disturbance to QI/ SCI habitats and/ or species of European Sites located in the vicinity during construction e.g. via noise.
- Direct or indirect disturbance to QI/ SCI habitats and/ or species of European Sites located in the vicinity of new developments from human disturbance e.g. more people accessing coastal areas with potential to disturb bird populations.
- Potential for direct loss of species through developments e.g. entombing of bats in attic spaces as a result of insulation measures or collision with infrastructure.
- Impacts on water quality both *ex-situ* and *in-situ* arising from infrastructure/developments, such as sedimentation, release of nutrients and/ or pollutants such as concrete or oil from construction/operational activities which could impact water dependent habitats and species. This is also relevant to the operation of developments e.g. surface water run-off from forest plantations posing a threat to water quality.
- Alterations to groundwater movement to groundwater dependent European Sites through construction of infrastructure/ developments, particularly where basement parking may be provided.
- Potential for increased flooding as a result of siting of infrastructure/ developments.
- Potential introduction and spread of invasive species to a European Site, or adjacent to or adjoining a European Site, through vector material carried on machinery/ equipment required for development works or materials required during development and operation.

Housing Stock

Although the location or type of housing is not specified it is acknowledged that new housing of all types will be required. The construction of housing to accommodate these population increases has the potential for direct and indirect likely significant effects on European Sites. It is acknowledged that the NPF has focussed on increasing population within the existing urban fabric and on infill/ brownfield sites. This will reduce the potential for loss of greenfield sites and associated features

such as hedgerows. Use of infill, even in existing built up areas has the potential for indirect effects where ecological stepping stones or links may be lost in the wider landscape. Additionally, construction on infill sites may give rise to loss of habitat and/ or species disturbance particularly where mature trees with potential for bat habitat are to be removed or where the infill is located in proximity to watercourses where there could be indirect destruction of species habitat such as destruction of an Otter holt along a watercourse. There is also the potential for water pollution from loss of suspended solids during construction, spillages of materials etc. with direct impacts or indirect downstream impacts.

The use of brownfield sites has the potential for direct and indirect likely significant effects on European Sites. Depending on the location nationally, these brownfield sites may have contaminated material related to port activities, industrial processes or illegal landfilling. There is no database of brownfield sites available nationally making assessment of consideration of the potential impacts difficult. It is recognised that depending on the methodology of construction and the nature of the contamination, development on such lands could lead to release of leachates to soils/ water and release of emissions to air such as methane. There is therefore potential for negative impacts on European Sites in the zone of influence, particularly those designated for wetland habitats and their associated species. In order to fully evaluate the potential for effects on European Sites an inventory of potential brownfield sites would be required at the regional level which establishes the historical emissions and the nature and type of contamination that may exist. Once this is available it will be possible to fully establish the potential for effect on European Sites and to inform decision making in relation to what brownfield sites are and are not suitable for regeneration and the mitigation that might be appropriate at the site specific level.

In addition to delivery of new stock the NPF also deals with vacant properties. There is likely to be a need for retrofitting and upgrades to such properties to bring them up to standard. Retrofitting residential, public and private premises could lead to indirect likely significant effects on European Sites. This is through construction type activities associated with the upgrade works e.g. installation of external and internal wall insulation and attic insulation. It is acknowledged that upgrade works may be relatively minor in nature however, external works could lead to disturbance to QI/ SCI species of European Sites located in the vicinity during upgrade works e.g. via noise or human disturbance, if the premises were located within or near a European Site or supporting habitat. Depending on the sensitivity of the location of the premises e.g. within or adjoining a European Site or watercourse, there could also be resultant indirect destruction of species habitat such as destruction of an Otter holt along a watercourse due to vehicles/ machinery traversing over or in close proximity to the area.

Transport Infrastructure

The NPF includes a number of general objectives for improved access, improved linkages (road and rail) and delivery of public transport options (greenways, walking routes, cycling routes) in addition to more specific reference to projects already in the planning process. The delivery of any linear infrastructure has the potential for significant effects on European Sites including; habitat loss, destruction, fragmentation or degradation to construct the infrastructure, species mortality during construction, species/ habitat disturbance during construction and operation due to increased human presence adjacent to or in close proximity to European Sites, barriers to movement of species, water quality impacts and hence impacts on water dependent habitats and species, alterations to groundwater movement and introduction and spread of invasive species.

Greenways / Cycleways – Climate change is a significant driver for negative impacts on European Sites therefore measures to reduce emissions should broadly be viewed as positive. However, promotion of smarter travel can result in indirect likely significant effects on European Sites through land use change to develop greenways, cycleways or other cycling/walking infrastructure, albeit permitted in accordance with the appropriate planning and environmental legislation and regulatory processes. This could include habitat loss, destruction, fragmentation or degradation to construct the infrastructure, species mortality during construction and habitat and species disturbance due to increased human presence adjacent to or in close proximity to European Sites.

Blueways – Climate change is a significant driver for negative impacts on European Sites therefore measures to reduce emissions should broadly be viewed as positive. The development of blueways seeks to capitalise on the wealth of inland waterways nationally such as the Shannon Erne Blueway. It is anticipated that more of these blueways will be developed in the coming years following the success of initiatives such as the Wild Atlantic Way. These features promote cycling, walking and paddling. Key issues for European Sites include the provision of support infrastructure such as slipways and quays, water pollution form fuel from boats, noise disturbance form power boats, human disturbance from increased footfall on adjacent towpaths and people using the water, loss or disturbance of riverine or fringing habitat to provide associated infrastructure. In addition there is potential for transfer of disease and spread of invasive species as a result of boating activity. A recent example is the introduction of crayfish plague in the River Barrow system. This can result in 100% mortality for the protected White Clawed Crayfish.

Roads – Climate change is a significant driver for negative impacts on European Sites therefore measures which promote private car use have the potential to increase GHG emissions as well as other transport related emissions such as NOx, SOx and particulates.

The key effects on European Sites associated with fuel combustion are; nitrogen/sulphur deposition leading to acidification and eutrophication of soils/water, deposition of particulate matter leading to vegetation damage and/or change in species assemblage and increased atmospheric CO and CO_2 accelerating climate change. Atmospheric deposition of sulphur and nitrogen compounds causes acidification of soil and surface waters. It has also been found that particulate matter (PM) deposition can result in acidification of soils (Bhattacharjee, *et al*., 1999). In 2010, 7% of land area in the EU-28 (28 EU Member States) exceeded acidification critical loads and this is projected to decrease to 4% by 2020 (EEA, 2015a). Deposition of sulphur and nitrogen compounds also causes eutrophication of freshwater and saltwater systems (EEA, 2015a).

Nitrogen deposition, as a result of NO_x emissions, causes many alterations to vegetation communities. It has been found that the number of species at risk within acidic and calcareous grasslands increased at nitrogen deposition rates greater than 5-10 kg N ha^{-1} yr^{-1} (JNCC, 2011). Increases of up to 50% in canopy height at N-deposition rates of 45-50 kg N ha^{-1} yr^{-1} (Stevens, *et al*., 2010) and an increase in the occurrence and abundance of competitive species have also been documented (JNCC, 2011). The JNCC (2011) also found that increased N-deposition on calcareous grasslands resulted in decreased species richness, forb and bryophyte cover and an increase in grass cover. This results in an overall decline in biodiversity.

The European Environment Agency (EEA) highlight that NO_x emissions contribute to the acidification of soil, lakes and rivers, causing loss of animal and plant life and biodiversity (EEA, 2015b). Similarly the EEA (2014) identified one of the main pressures on grassland ecosystem biodiversity was airborne nitrogen, amongst other pressures such as habitat fragmentation, conversion of land for alternative fuel crop and afforestation. Airborne nitrogen was identified to encourage the

establishment of competitive species, favour species poor communities (i.e. reduced diversity) and reduce the structural density of grasslands through acidification and eutrophication. Nitrogen deposition is known to be affecting acidic and calcareous grasslands, heathlands and bogs (JNCC, 2011). The EEA published a report which succinctly summarised the links between increased nitrogen deposition, eutrophication and loss of biodiversity (European Environment Agency, 2010). They stated that nitrogen deposition can lead to eutrophication of ecosystems (European Environment Agency, 2010; Rai, 2016) and when deposition rates exceed critical load values "*it is damaging to biodiversity*". The report went on to state that excessive levels of reactive nitrogen, in the form of nitrogen deposition, constitute "*a major threat to biodiversity in terrestrial, aquatic and coastal ecosystems*". Many mapping efforts to investigate the impacts of nitrogen deposition on biodiversity are focused around 'critical loads'. However "*not all critical loads are defined to protect biodiversity*." The report also stated that in terrestrial habitats N-deposition "*causes a loss of sensitive species and hence biodiversity*". This was attributed to the excess nitrogen inputs favouring "*a few nitrogen tolerant species over less tolerant ones*" (European Environment Agency, 2010). As can be seen, "*N-deposition reduces the conservation value of sensitive priority habitats*" by impacting biodiversity and is a significant barrier to the UK (and by inference, Ireland) achieving the "*targets within the Habitats Directive and Biodiversity Action Plans*" (RoTAP, 2012). It must be kept in mind however that many of these studies state that research into the effects on biodiversity are lacking.

Emissions of particulate matter can have many detrimental effects on vegetation (Beckett, *et al.,* 1998; Rai, 2016). Rai (2016) stated that particulate matter may adversely affect biodiversity, in particular urban forests. Biomass combustion, wood burning in particular, is a major source of particulates in the atmosphere (EEA, 2015) due to the high ash and moisture content of wood and the often incomplete combustion associated with small-scale wood burning. Incomplete combustion of wood causes increased levels of coarse particulate matter (PM_{10}) in the atmosphere and the nucleation, condensation or coagulation of nitrogen oxides, sulphur dioxide, ammonia, and volatile organic compounds (found in biomass combustion emissions) result in the formation of secondary particles ($PM_{2.5}$) (USEPA, 2004). Particulate matter deposition is considered by many, albeit with limited direct research available, to cause many impacts such as reduced biodiversity, sedimentation of surface waterbodies and impacted growth of vegetation (Rai, 2016).

Alterations to the physical structure of vegetation has been found to occur as a result of PM deposition; a significant source of damage to trees, by particulate matter (PM) pollution, can be the abrasive action of the turbulent deposition of the PM (Das, *et al*., 2012; Hirano, *et al*., 1995; Kulshreshtha, *et al.*, 1994). Kulshreshtha, *et al.*, (1994) showed this to have increased callus tissue formation on leaf surfaces. The increase deposition of atmospheric PM has also been shown to result in the occlusion of stomata, thereby decreasing the efficiency of gaseous exchange (Beckett, *et al*., 1998; Das, *et al*., 2012; Hirano, *et al*., 1995). The formation of a 'crust' on leaves and bark surfaces has also been observed, due to PM deposition. This crust disrupts physiological processes, such as bud break, pollination and light absorption/reflectance (Beckett, *et al.,* 1998). Although fine PM deposition has been found to provide nutrients to vegetation, it also "changes leaf surface properties, increases the duration of surface wetness" and can result in modification of the habitat for epiphytic organisms, which may lead to increased risks from pathogens (Cape, 2008; Manning and Feder, 1980; Shkaraba and Perevedentseva, 1991).

Rail including DART Luas and Metro Lines – The DART, Luas and Metro lines are focussed on the Dublin region. The DART system has been operational in Dublin for over two decades. Many of the lines run along the coastal sections of Dublin, adjacent to the SPAs along south and north Dublin Bay. Irish rail has proposed a DART expansion programme which includes the delivery of Dart Underground and the electrification of a number of key lines in the GDA. This expansion has the

potential for direct and indirect negative effects on European Sites though construction related activities leading to pollution of downstream watercourses with run-off or suspended solids and disturbance of species in adjacent European Sites such as at the Broadmeadow/ Swords Estuary (SAC and SPA) and Rogerstown Estuary (SPA) where the rail line crosses directly through the European Sites. The wider rail network at a national scale also has potential for negative effects on the Natura 2000 network. While delivery of new rail lines will be limited, refurbishment and reopening of lines has the potential for negative effects on European Sites. Disused rail lines in many cases have become ecological corridors and may be relevant for some protected species such as bats/ otters depending on the location. Upgrades etc. have potential for construction related impacts primarily related to pollution to surface waters.

Many of the Luas lines have already been constructed and potential for impact on European Sites has focussed on construction related issues such as surface water management given the downstream European Sites in Dublin Bay. Key issues for the proposed Metro line will also relate to surface water and groundwater pathways given the potential for underground sections. The provision of public transport options has the potential to offset GHG emissions related to use of private cars. Climate change is a significant driver for negative impacts on European Sites therefore measures to reduce emissions should be viewed as broadly positive.

As outlined under Roads above, emissions to air as a result of rail can give rise to NOx, SOx and particulates emissions, particularly where diesel stock is in use. While much of the DART system is electrified it is noted that the source of the electricity may be from non-renewable sources dependant on burning of fossil fuels and biomass which give rise to those emissions discussed to air.

Ports –A national ports policy was developed in 2013 to better address maritime transport services. The policy clearly delineated Tier 1 ports of international significance, Tier 2 ports of national significance and other ports of regional significance. Tier 1 ports include Dublin Port Company, the Port of Cork Company and Shannon Foynes Port Company. Tier 2 ports include the Port of Waterford and Rosslare Port. The final category are ports of regional significance and include Drogheda, Dún Laoghaire, Galway, New Ross and Wicklow. Notably the majority of these ports are within / adjacent to European Sites.

Key pressures include dreging (maintenance and / capital); commercial shipping and associated noise and disturbance; emissions of to water and air; waste generation; land reclamation; attraction of associated industrial development; contaminated land issues. The European Sites in Ireland's coastal and estuarine space include extensive areas of protected habitats and species. *Growth of ports* has the potential for impact on the European Sites through changes in coastal processes and sediment budgets as a result of dredging or similar works; impacts on Annex species during construction (dredging, piling, dumping of materials); temporary loss of food sources; increased disturbance from improved access routes bring more traffic and emissions into the area. This is in combination with other ongoing port activities such as maintenance dredging. Recognising the complexities of issues in the estuarine and coastal zone, the European Commission published guidelines on the *Implementation of the Birds and Habitats Directives in Estuaries and Coastal Zones*. The guidelines note that port development in European sites is not precluded but must be approached with care and must include early stakeholder dialogue. The approach to port development in any of the ports noted in the NPF must adhere to these guidelines in order to protect the European Sites around them.

Energy Infrastructure

Incentivisation schemes and financial support measures to encourage renewable electricity (including off-shore) could lead to indirect likely significant effects on European Sites through an increased demand for construction of renewable electricity generation facilities, upgrade of existing electricity generation infrastructure and requirement for development of electricity interconnection infrastructure and resultant effects in terms of construction, upgrade or operational related impacts. Construction of renewable electricity generation facilities can result in a range of potential likely significant effects on European Sites as outlined above, as well as cumulative effects. Many wind farm sites are located in upland areas of peatland/ heathland, which can correspond to Annex I habitats types within and outside of European Sites, resulting in habitat loss. Construction and operation of these sites can also lead to habitat deterioration for example through machinery access, surface water run-off changes resulting in erosion or increased exposure of habitats as a result of vegetation disturbance.

Dependent on location, construction of infrastructure can also lead to alteration to groundwater movement to groundwater dependent European Sites. The potential for introduction and spread of invasive species through machinery/ equipment, but also material brought onto and moved off site also exists during construction and operation of infrastructure. It is noted that the Wind Energy Guidelines are under consideration for update and as part of this review SEA and AA will apply. Furthermore the Renewable Electricity Plan is in preparation albeit delayed and this too is subject to SEA and AA. These guidelines and strategic planning must be prioritised to ensure that decision making in terms of renewables is properly informed. The renewable electricity plan is particularly important given the recent proliferation of applications for solar farms. This trend has introduced a new set of challenges as the farms can cover significant areas removing resting and/ or foraging sites for some birds and they can also cause glare with potential negative effects for overflying birds. Clear guidance is needed to assist developers of proposed solar farms to ensure they provide robust information to the relevant statutory authorities to inform AA of such projects.

During operation, wind farms can have direct impacts on species including SPA birds through collision with turbines resulting in mortality and *ex-situ* effects by creating barriers to movement such as altering migratory routes of SPA birds to avoid wind farms (which in turn could result in decreased survival rates of the birds on migration due to increased expenditure of energy). There is a body of evidence in relation to impacts on sensitive species, such as Hen harrier and some bat species from the provision of renewable wind infrastructure in sensitive habitats. Similarly other renewable electricity infrastructure such as hydro power and tidal power can result in direct impacts to European Sites through habitat loss as they may be located within rivers/estuaries designated as SACs or may result in direct mortality of QI species such as fish as a result of collision with infrastructure e.g. turbines, and can create barriers to movement hindering migration of species such as fish species or marine mammals. The EU Commission have commissioned a North Sea project and are currently compiling a body of knowledge in relation to off-shore renewable energy, focusing on wind, wave and tidal energies, in order to set out a forward plan for Member States in relation to development of such infrastructure going forward (www.beagins.eu).

Renewable electricity facilities requiring biomass could have additional potential likely significant effects. Along with the potential indirect likely significant effects associated with construction and operation of such a facility, as outlined above, the operation of such a facility would also require forest stands to be established for same. The potential likely significant effects of establishment of forests include habitat loss/fragmentation, habitat degradation as a result of water quality changes from run-off of fertilisers or sediment run-off into nearby watercourses impacting downstream European Sites, and potential introduction/spread of invasive plant species through introduction of

non-native crops which may have potential to become invasive. This is discussed in further detail under 'Agriculture and Forest' below.

In relation to Moneypoint Generation Station, the site is already developed but a switch to low carbon generation technology would most likely require construction/upgrade works. Given the sensitive location of the facility, located on the Shannon Estuary and adjoining the Lower River Shannon SAC and River Shannon and River Fergus Estuaries SPA, any construction works, changes to site layout, boundaries, outfalls points or operations could have potential likely significant effects similar to those outlined previously. Similarly, any switch to electricity generation technology in existing peat-fired generation stations would be of a similar nature and thus have similar potential likely effects on European Sites.

Any electricity interconnection infrastructure required would likely be via overhead lines or underground cables. Interconnection to Great Britain or continental Europe would be via undersea/subsea cables or other technologies. Construction and operational related impacts would be similar to those outlined above and could result in potential likely significant effects on European Sites.

Utilities

Broadband – Construction of new broadband network could include methods such as provision of new overhead lines, new underground routes and/ or new masts. Associated with this would be any above ground infrastructure required to operate/ maintain the network (such as buildings, cabinets, sub-stations etc.). Impacts to European Sites as a result of constructing a new broadband network will differ depending on the type of technology used. For example, installation of poles to facilitate and overhead network could typically occur alongside the road network as well as underground cabling which could also be located in the body of existing public roads which would limit the likelihood of potential impacts to European Sites. However, overhead lines and underground cables may need to traverse remote areas where utilising existing roads may not be feasible and therefore there may be an increased likelihood of having to access European Sites in rural areas. They may also be required to span estuaries or other marine habitat, especially in relation to connection to off-shore islands, where there may be conflicts with SAC and SPA habitats and species such as large concentrations of SPA birds, marine mammals and coastal habitats. Construction of masts could be used to facilitate a wireless network and would typically be located in remote areas where it would not be feasible to roll out an overhead or underground cable network. This can often conflict with European Sites and supporting hunting/ breeding habitats suitable for SPA birds such as Hen harrier and Peregrine falcon. The main effects on European Sites associated with this include:

- Direct habitat loss of European Sites if infrastructure was constructed within the Sites;
- Direct or indirect habitat fragmentation through loss of small patches of habitat within a larger European Sites if infrastructure was sited within the Sites. This could also arise from loss of ecological corridors and connectivity, outside of European Sites but which support the functioning of the European Sites, such as loss of hedgerows, treelines or small wetlands through clearance of sites to construct wireline and wireless-associated infrastructure.
- Destruction of species habitat within and outside of European Sites during installation of the network e.g. destruction of otter holts due to machinery traversing over or in close proximity to the area e.g. along field drains or wet ditches.
- Direct habitat degradation resulting from access of construction related machinery or trampling during construction and maintenance of the network.

- Barriers to movement of species as a result of construction of a new network e.g. construction of overhead lines or masts in flight paths or migration routes of birds, or undersea cables creating barriers to migration of fish species.
- Potential direct loss of species through collision with a new over ground or under sea network e.g. birds colliding with overhead wires or masts or marine mammals colliding with undersea cable infrastructure.
- Direct and indirect disturbance to QI/ SCI habitats and/ or species of European Sites located in the vicinity during construction and operation of the infrastructure e.g. via noise or human disturbance;
- Impacts on water quality both *ex-situ* and *in-situ* arising from construction works, such as sedimentation and release of nutrients from land;
- Potential alteration to ground water movement through installation of underground cable routes and masts which could impact water dependent habitats and species; and
- Potential introduction and spread of invasive species to a European Site, adjacent to or adjoining a European Site, through vector material carried on machinery/ equipment or materials required for construction and operation/ maintenance of the network.

Many of Ireland's off-shore islands are themselves designated as SACs and SPAs e.g. Inishmore Island SAC and Inishmore SPA, and the mainland area from where these islands can be accessed may also be located within, adjacent to or adjoining SACs/ SPAs e.g. Cliffs of Moher SPA and Black Head-Poulsallagh Complex SAC. Therefore there is potential for likely significant effects on European Sites as a result of construction of a new network to the off-shore islands e.g. undersea cable, to the off-shore islands such as direct habitat loss or disturbance to QI/ SCI species during installation/operation, or creation of barriers to movement of species e.g. fish species.

Water Services – Irish Water in 2014 became the national utility company with responsibility for over 1000 Water and Waste Water Treatment Facilities nationally as well as the pipe network supplying commercial and domestic premises connected to the municipal system. Key issues for water in relation to the NPF include:

- Impacts on water bodies from construction of new water and wastewater treatment facilities and from existing septic tanks.
- Ensure adequate drinking water and wastewater treatment is available to accommodate planned growth and development without impacts to European Sites;
- Protection of water-dependant ecosystems from pollution;
- Prevention of the introduction and/ or spread of invasive species.

In addition to the construction of *water treatment facilities* and the associated construction impacts, a significant issue in relation to water treatment is the presence of elevated lead that has been found in Ireland. In response to this Irish Water have developed a strategy to remove the lead from the public water supply. This will involve dosing public water supplies with orthophosphate. Orthophosphate works as a corrosion inhibitor by converting some of the lead carbonate to lead phosphate, forming a protective coating inside lead pipes which helps to reduce corrosion, a contributor of lead to the water supply. Phosphorus has the potential to impact water quality status through the process of nutrient enrichment and promotion of excessive plant growth (eutrophication). It is therefore necessary to consider the risk of environmental impact and the pathways by which the added orthophosphate may reach environmental receptors potentially resulting in adverse effects. To facilitate the assessment of the risk to the receiving environment an Environmental Assessment Methodology (EAM) has been developed by Irish Water based on a

conceptual model of phosphorus (P) transfer, based on the source-pathway-receptor model, from the water distribution and wastewater collection systems. This model establishes the risk for each water supply zone. Each proposed dosing will be accpompanied by an EAM and an AA to establish potential for significant effects to Euopean Sites, alone and in combination.

The provision of an adequete supply of potable water is also referenced in the NPF. To date a feasability study investigating potential sources for a new supply for the Dublin region has been carried out with abstration from the Shannon river identifed as the preferred engineering solution. This stage of the proeject development was supported by SEA and AA of the proposed options. Subseqently, the preferred solution has been revisited and refined and the project is now subject to the preparation of a detailed NIS (informed by the plan level AA) to accompany a planning application in due course. Significant issues relate to retention times and low flows at the proposed abstration location, transfer of water between river basins and spread of invasive species such as zebra mussle. These issue will be further investigated as part of the NIS for the project with mitigation provided as appropriate.

The ongoing increases in population along with expanding commercial activities will also put strain upon the existing wastewater infrastructure. The most significant surface water quality issue in Ireland continues to be excessive nutrient enrichment which leads to eutrophication and municipal sources are one of the most important suspected causes of pollution to rivers. The EPA's Urban Wastewater Report (2016) states that ten (out of 171) large urban areas did not meet the EU Urban Waste Water Treatment Directive requirement for the provision of secondary treatment, and untreated sewage was routinely discharged from 43 areas. Wastewater discharges also contributed to poor water quality at 6 out of 137 bathing waters in 2015. These ongoing have obvious potential for negative effects on European Sites which is only likely to be exacerbated by growth in populations and economies in existing problem areas and may add to the list.

It is acknowledged that the implementation of the 1st and now 2nd cycle Programme of Measures for the River Basin Management Plan will improve the outlook in some instances but further investigative work may be required before long-term improvements can be seen across the board. Irish Water will be key to this and to achieving compliance with the Urban WWT Directive through the implementation of the Irish Water Investment Programme and the Water Services Strategic Plan. These plans have been subject to AA and the associated mitigation will prevent potential for likely effects on European Sites.

The provision of a regional wastewater facility for Dublin is referred to in the NPF. An NIS is currently being prepared to support a planning application for a facility in Fingal including consideration of site based factors e.g. loss of bat habitats, disturbance of bird species in fringing coastal habitat; and offshore elements e.g. impact of pipe laying on seals and on the feeding and breeding activity of protected bird populations in the SPA and SAC off the north Dublin coastline. The necessary mitigation measures to prevent impact are currently being explored.

6.5.2 Rural Economy

Agriculture

The Rural Development Programme 2014-2020 funds a number of schemes aimed at restoring, preserving and enhancing ecosystems. Infrastructural development/conservation is funded under some of the schemes, namely GLAS Traditional Farm Buildings Grant Scheme and TAMS II. As the focus of the schemes is on the agricultural sector which is generally located in more rural/remote

areas, there could be a direct conflict with European Sites and hence any infrastructural development could have the potential to lead to likely significant effects on European Sites.

The GLAS Traditional Farm Buildings Grant Scheme is for conservation and repair works to traditional farm buildings and other structures. It is acknowledged that these works would be undertaken on existing buildings/structures. However, external works could lead to disturbance to QI/SCI species of European Sites located in the vicinity during upgrade works e.g. via noise or human disturbance and direct/indirect habitat degradation through machinery access or trampling during construction/upgrade works, if the premises were located within or near a European Site or supporting habitat. Depending on the sensitivity of the location of the premises e.g. within or adjoining a European Site or watercourse, there could also be resultant indirect destruction of species habitat such as destruction of an Otter holt along a watercourse due to vehicles/machinery traversing over or in close proximity to the area.

As previously discussed under 'Built Environment', old buildings, outhouses, stables and underground structures can act as Lesser horseshoe bat roosting and hibernating habitat. As the nature of the grant scheme is in relation to older traditional buildings, the potential conflict with horseshoe bats is particularly pertinent. Species distribution is limited to the western seaboard, in counties Cork, Kerry, Limerick, Clare, Galway and Mayo. The species is known to roost in attics and old buildings during the summer season and hibernates in cellars, caves or other suitable underground habitat. The species will also utilise 'night roosts' where it will rest temporarily during feeding, and also can utilises transitional and satellite roosts which would differ in location to the main roosts. Therefore, conservation and repair works to traditional farm buildings and other structure could pose a risk of likely significant effects on European Sites designated for the species. The species could be disturbed by works at critical periods in its life cycle e.g. reproduction and hibernation. The works could also result in crevices/gaps in the buildings being sealed up and could result in mortality if the bats became entombed in the buildings e.g. no gaps to allow them to exit the attic space. This could also result in *ex-situ* habitat loss for the bat species, making potential roosting and hibernating habitat i.e. attic and old cellars/basement spaces, inaccessible for use.

Construction of farm buildings/facilities under the TAMS II capital investment scheme could result in a range of construction and operational related impacts as listed above including; direct habitat loss or destruction, fragmentation and degradation, indirect species loss through loss of habitat to infrastructure, disturbance to QI/SCI habitats and species, water quality impacts, alterations to groundwater movement and introduction of invasive species.

Increased productivity in the agriculture sector is a key element of Foodwise 2025 which is a10 year for the agri-food sector. Foodwise 2025 has undergone SEA and AA. Key risks identified relate to risks to water quality, air quality, soil quality, biodiversity and climate resulting from increased volumes of animal slurry; increased GHG emissions; and increased nutrient runoff. Mitigation measures have been included relating to sustainability, governance, monitoring, and improved evidence base. The implementation of the mitigation is considered critical to the sustainable delivery of the actions in Food Wise 2025. Ongoing careful consideration of the sustainable limits will be required.

The Action Plan for Rural Development has also been published. This includes a number of actions under key pillars relating to sustainable communities, employment, tourism and recreation and communities. This plan does not appear to have undergone AA.

Forestry

The Forestry Programme 2014-2020 outlines Ireland's proposals for state aid to achieve the visions of the sector, which are namely to; increase forest cover, increase the production of wood and forest-based biomass and support forest holders to actively manage their plantations. Ireland has a target to expand forest cover from the current 10.8% of the land area of the country to 18% by 2046, with all of the expansion expected to come from agricultural land. Forestry, similar to agriculture, is generally located in more rural/remote areas therefore there could be a direct conflict with European Sites. Establishment of new forests/woodlands and subsequent maintenance and operation, construction of seed orchards, construction of forest roads and associated facilities such as car parks and looped walkways have the potential to lead to indirect likely significant effects on European Sites. It is acknowledged that the Forestry Programme has undergone AA and SEA, and mitigation measures have been proposed to offset any impacts identified.

Planting, tending, thinning and harvesting of trees can give rise to potential likely significant effects on European Sites including habitat loss, destruction, fragmentation and degradation, disturbance to QI/ SCI species of European Sites located in the vicinity during forest establishment, or located within or surrounding the forest during tending, thinning and harvesting works e.g. via noise or human disturbance. Direct/ indirect habitat degradation could result through machinery access or trampling during construction/maintenance/ harvesting works, also potentially resulting in release of silt and nutrients into water courses. There could be potential loss of QI/ SCI species habitat or supporting habitat e.g. loss of heath habitat for breeding/ foraging Hen harrier to plant forests, and with Hen harriers known to breed in second rotation and pre-thicket forestry, loss of habitat upon the habitat maturing. Tending and thinning activities could also lead to species mortality and/or disturbance depending on the habitat e.g. Hen harrier breeding in second rotation and pre-thicket forestry and potential removal of nest site. In addition, there is potential for water quality impacts during establishment of forestry, subsequent maintenance and through to harvesting as a result of alterations to drainage and surface water run-off releasing sediment and nutrients (from fertilizer application as well as soil nutrients) into watercourses, with subsequent impacts on water dependent habitats and species.

There may be impacts on water movement (including groundwater) and/ or supply to water/ groundwater dependent habitats through forests potentially altering the hydrological/hydrogeological regimes through their establishment. In addition, use of fast growing or non-native species may pose a risk as they may utilise large quantities of water in the establishment phase. There is potential for this to alter the water table and/or hydrological/hydrogeological regimes to water/ groundwater dependent habitats and species.

Construction of forest roads in order to maintain and mobilise roundwood, as well as construction of car parks and looped walks to support NeighbourWood Schemes can lead to a range of infrastructure construction related impacts as outlined previously. These can also increase the level of disturbance to QI/SCI habitat and species as these facilities effectively open up the forests for recreation and hence human disturbance.

Aquaculture and Fisheries

Unsustainable aquaculture and fisheries can negatively impact on European Sites through overfishing generally, fishing of wild juveniles needed for future stock growth, release of organic wastes (which can act as plant nutrients for harmful algal blooms), release of inorganic wastes and distribution of riverine and coastal habitats and ecosystems. Increased productivity in the aquaculture and sea fisheries sector is an element of Foodwise 2025. This sector is identified as one with significant potential to expand. Foodwise 2025 has undergone SEA and AA with mitigation

measures specified for the sea food sector including AA screening of licensing and permitting applications and risk assessments for activities falling outside Article 6(3). There remains the potential for conflict, particularly where existing activities overlap with SAC/ SPA. Careful consideration of the sustainable limits will be required.

6.5.3 Landuse Change

Landuse changes arising from the NPF emanate from the projected population growth and the need for housing and economic activities to support the growing population. A significant proportion of the projected population growth is focussed toward the existing urban fabric, limiting potential for greenfield development. This is a positive effect of the plan. Issues related to construction on infill and brownfield have been discussed in above. The regeneration of such lands is also positive as brownfield sites have potential to pollute soil, water and air quality with indirect negative effects for European Sites. That said, the change in land use to residential/ mixed use may result in other pressure for European Sites. The delivery of high density residential development in docks and port areas where significant land banks may exist may result in increased human disturbance from recreation, visitor pressure, delivery of supporting infrastructure etc. Robust site selection and consideration of the carrying capacity of the land in question is necessary to offset the potential for negative effects at the regional and local level. This is particularly the case for SDZ and other vehicles for delivery of high volumes of residential development. Consideration of sustainable limits for development is needed if potential for negative effects on adjoining or adjacent European Sites is to be avoided.

Significant land use changes outside the urban fabric are likely to relate to land management activities such as afforestation, intensification of agriculture, agri-tourism and tourism potential. Potential impacts relate to changes to hydrology/ hydrogeology from land reclamation e.g. wetlands, loss of habitats and habitat linkages such as hedgerows and riverine corridors; barriers to movement of species; deterioration of water quality from sedimentation and eutrophication; and disturbance to habitats/ species e.g. roosting/ foraging grounds disturbed or altered. Thus the NPF, by supporting the implementation of such economic activity, could lead to likely significant effects on European Sites. It is further noted that there is potential for populations of priority species and areas of priority habitat that occur outside of the Natura 2000 protected areas network and these must also be considered in decision making. Critical to this is development of an inventory of such populations and areas within each administrative area to better inform local level planning decisions.

It is acknowledged that the NPF does not include sectoral targets and in the majority of cases this is dealt with at lower level sectoral plans compiled by the relevant government departments and agencies including the Forestry Programme (has undergone AA and SEA, and mitigation measures have been proposed to offset any impacts identified); the Rural Development Plan (has undergone AA and SEA, and mitigation measures have been proposed to offset any impacts identified); Foodwise 2025 (has undergone AA and SEA, and mitigation measures have been proposed to offset any impacts identified); the National Sustainable Aquaculture Plan (has undergone AA and SEA, and mitigation measures have been proposed to offset any impacts identified) among others.

Despite the individual sectoral plans and their associated environmental assessments there is no comprehensive understanding of the carrying capacity of the land to absorb the projected change though the various sectors and particularly with regard to the cumulative effect of these land uses on European Sites individually and as a network. A comprehensive GIS dataset which can spatially analyse the projected strategic sectoral measures and actions from a national planning perspective is warranted to ensure the long-term success of the Natura 2000 network. The NPF provides an

opportunity to deliver a tool for robust integrated land use planning across government departments which can properly inform the lower tiers in the planning hierarchy.

6.6 ASSESSMENT OF IN-COMBINATION EFFECTS WITH OTHER PLANS OR PROJECTS

The assessment of in-combination effects with other plans or projects is a crucial and often difficult aspect of Article 6(3) assessment, particularly at the plan level. This step aims to consider the policies and frameworks within which the NPF is being developed and to identify at this early stage any possible in-combination effects of the proposed NPF with other plans and projects; see **Table 6.12** below. In theory, there are many other plans/ projects that interact with or have the potential to combine pressures and threats to European Sites; however, the in-combination assessment is a matter of applying a practical and realistic approach.

In line with MN2000 guidance, a stepwise approach has been taken to consideration of in-combination effects as follows:

- Identify plans / projects that might act in combination;
- Identify the types of impact that might occur;
- Define boundaries of the assessment;
- Identify pathways for impact; and
- Impact prediction and assessment.

Table 6.12 – In-combination Impacts with Other Plans, Programmes and Policy

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
Regional Spatial Economic Strategies (Due to commence) These are to replace the Regional Planning Guidelines. A key aspect of the planning and economic development role is that the work in formulating the new Spatial and Economic Strategy will be undertaken at the sub-regional areas, which correspond broadly to the 8 former regional authority areas. These will be the building blocks for spatial and economic planning and statutory committees, involving the three Assembly members from these areas, together with outside interests, will be established.	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Disturbance to habitats/species; ▪ Alterations to water quality and/or water movement; and ▪ Introduction or spread of invasive species.	These plans will be subject to AA when prepared. The potential for in-combination effects are unclear as the plans are not developed at this stage. However, it is envisaged that the plans would contribute positively to the NPF by outlining where sustainable growth is to be directed. As noted in Figure 4.1 of this NIS, AA will be undertaken at all levels in the planning hierarchy, evolving alongside greater certainty / detail in proposals through the regional, county and local level, in all cases ensuring that proposals are in keeping with the objectives of the Habitats Directive.
Capital Investment Plan 2016-2021 The Capital Plan was published in 2015 and set out a six year framework for substantial infrastructural investment in Ireland out to 2021. Total state backed investment under the Plan amounted to €42 billion over the period.	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Disturbance to habitats/species; ▪ Alterations to water quality and/or water movement; and ▪ Introduction or spread of invasive species.	The CIP is a high level budgetary and finance document which identifies priorities for capital investment. It is noted that another 10 year national capital investment plan is being developed also and is expected by the end of the year. This will broadly align with the NPF and as such there is potential for in combination impacts as the CIP will realise many of the infrastructure objectives of the NPF. However, given the nature of the capital investment the majority of the projects referenced and funded under the CIP have been or will be subject to EIA/AA. The CIP does not confer planning, it identifies strategic need.
Water Services Strategic Plan Irish Water has prepared a Water Services Strategic Plan (WSSP, 2015), under Section 33 of the Water Service No. 2 Act of 2013 to address the delivery of strategic objectives which will contribute towards improved water quality and WFD requirements. The WSSP forms the highest tier of asset management plans (Tier 1) which Irish Water prepare and it sets	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Disturbance to habitats/species; ▪ Alterations to water quality and/or water movement; and ▪ Introduction or spread of invasive species.	The WSSP has undergone SEA and AA, which highlighted the need for additional plan/project environmental assessments to be carried out at the tier 2 and tier 3 levels. No likely significant in-combination effects are envisaged.

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
the overarching framework for subsequent detailed implementation plans (Tier 2) and water services projects (Tier 3). The WSSP sets out the challenges we face as a country in relation to the provision of water services and identifies strategic national priorities. It includes Irish Water's short, medium and long term objectives and identifies strategies to achieve these objectives. As such, the plan provides the context for subsequent detailed implementation plans (Tier 2) which will document the approach to be used for key water service areas such as water resource management, wastewater compliance and sludge management. The WSSP also sets out the strategic objectives against which the Irish Water Capital Investment Programme is developed. The current version of the CIP outlines the proposals for capital expenditure in terms of upgrades and new builds within the Irish Water owned asset		
Catchment Flood Risk Assessment and Management (CFRAM) Programme, under the Floods Directive The Office of Public Works (OPW) is responsible for the implementation of the Floods Directive 2007/60/EC which is being carried out through a Catchment based Flood Risk Assessment and Management (CFRAM) Programme. As part of the directive Ireland is required to undertake a Preliminary Flood Risk Assessment, to identify areas of existing or potentially significant future flood risk and to prepare flood hazard and risk maps for these areas. Following this, Flood Risk Management Plans (FRMPs) are developed for these areas setting objectives for managing the flood risk and setting out a prioritised set of measures to achieve the objectives. The CFRAM programme is currently being rolled out and Draft Flood Risk Management Plans	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Alterations to water quality and/or water movement; ▪ Disturbance; ▪ In-combination impacts within the same scheme	CFRAM Studies and their product Flood Risk Management Plans, have undergone appropriate assessment. Any future flood plans will have to take into account the design and implementation of water management infrastructure as it has the potential to impact on hydromorphology and potentially on the ecological status and favourable conservation status of water bodies. The establishment where flooding is occurring is an importing consideration for the NPF and spatial planning in general, with regard to the siting of houses, services and infrastructure. The AA of the CFRAMs considered the potential for impacts from hard engineering solutions and how they might affect hydrological connectivity and hydromorphological supporting conditions for protected habitats and species. No likely significant in-combination effects are envisaged.

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
have been prepared. These plans have been subject AA.		
Culture 2025 Culture 2025 is a Framework Policy to 2025 which sets the vision for the future of culture and the arts in Ireland and prioritises actions. It recognises the diverse and multi-faceted nature of culture in Ireland and the contribution of 'culture' to sense of self, national identity and the arts.	▪ Habitat loss or destruction; ▪ Disturbance of species; and ▪ Introduction or spread of invasive species.	This strategy includes a number of aims relating to regeneration and reuse of building stock. Potential in-combination impacts relate to urban regeneration, infill development and reuse of protected/ vacant / derelict buildings (e.g. potential habitats for bats). However at a project level any project will be subject to AA and any necessary mitigation. Therefore, no potential for in-combination impacts are envisaged.
Healthy Ireland – a Framework for Improved Health and Wellbeing 2015-2025 The main aims of Healthy Ireland are: to increase the numbers of people experiencing good health (mental and physical) at all life stages; reduce health inequalities with a focus on social factors; protect the public and increase preparedness for threats to public health; and to encourage every individual and society as a whole to collaboratively engage with its own health and wellbeing. The first Implementation Plan has been published covering 2015-2017.	▪ Species disturbance.	Healthy Ireland is a long-term strategy concerned with the health and wellbeing of people and communities, The plan encourages healthier lifestyles such as walking and cycling which, in combination with the NPF policies for greenways, could lead to species disturbance particularly along coasts and rivers. As noted elsewhere, robust route / site selection must be applied for all linear infrastructure to avoid potential for impacts.
Towards Nearly Zero Energy Buildings in Ireland – Planning for 2020 and Beyond Proposed approach to Irish compliance with the EPBD commitments, prepared by the DECLG in November 2012. By 2020 all new dwellings in Ireland will have a Maximum Permitted Energy Performance Coefficient (MPEPC) and Maximum Permitted Carbon Performance Coefficient (MPCPC) of 0.30 and 0.35 in accordance with the common general framework set out in Annex I of EPBD.	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Species mortality; ▪ Disturbance to habitats/species; ▪ Alterations to air quality; ▪ Alterations to water quality and/or water movement; and ▪ Introduction or spread of invasive species.	This framework includes a number of aims which are linked to the aims under the NPF related to climate change and the transition to a low-carbon economy. Potential in-combination impacts relate to construction of infrastructure. However at a project level each project will be subject to AA and any necessary mitigation. Therefore, no potential for in-combination impacts are envisaged.
The Energy Performance of Buildings Directive (2002/91/EC recast by Directive 2010/31/EU) Contains a range of provisions to improve the energy	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation;	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve energy efficiency and therefore environmental quality.

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
performance of new and existing buildings. One of the key measures in this Directive is that all new buildings must be nearly zero energy buildings by 31 December 2020 (public buildings by 31 December 2018).	▪ Species mortality; ▪ Disturbance to habitats/species; ▪ Alterations to air quality; ▪ Alterations to water quality and/or water movement; and ▪ Introduction or spread of invasive species.	
National Energy Efficiency Action Plan (NEEAP) Presents the national ambition to deliver a 20% reduction in energy demand across the whole of the economy by 2020, along with a 33% reduction in public sector energy use. Ireland's third NEEAP was published 2014 and the fourth was produced in early 2017.	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Species mortality; ▪ Disturbance to habitats/species; ▪ Alterations to air quality; ▪ Alterations to water quality and/or water movement; and ▪ Introduction or spread of invasive species.	This plan would not be expected to conflict with any aspects of the NPF but to positively contribute to it going forward subject to AA of the 4th review.
National Climate Change Adaptation Framework 2012 The framework provides strategic focus to ensure adaptation measures are taken across different sectors and levels of government to reduce Ireland's vulnerability to the negative impacts of climate change.	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation. ▪ Alterations to air quality; ▪ Alterations to water quality and/or water movement; and ▪ Disturbance to habitats/ species.	The measures and research as a result of the plan will place a responsibility on all stakeholders to adapt to the impacts of predicted climate change. This framework prioritises reducing knowledge gaps through an evidence base and to develop tools to support the adaptation decision-making process. The framework and the NPF will be complimentary and as such no significant in-combination effects are envisaged.
European Framework Policy's Seventh Action Programme and **Roadmap to a Resource Efficient Europe** Both focus on encouraging a resource efficient, low carbon economy. Both have energy and climate targets. The Roadmap to a Resource Efficient Europe's main aim is to "*to decouple economic growth from resource use and its environmental impacts, and proposed a long-term vision, 2020 milestones and a number of*	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Alterations to air quality; ▪ Alterations to water quality and/or water movement; and ▪ Disturbance to habitats/ species.	The NPF shares common goals with these European lead programmes; a reduction in climate change impacts and increasing energy efficiency. Therefore, they are complimentary to the NPF and as such no significant in-combination effects are envisaged.

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
short-term actions to start the transition".		
Energy 2020 – A strategy for competitive, sustainable and secure energy Sets out three key requirements of energy supply; security, competitiveness and sustainability. Also sets out the following targets; ▪ Increase the share of renewable energy in the EU's energy mix to at least 20% of consumption; and ▪ Improve energy efficiency by at least 20%.	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Alterations to air quality; ▪ Alterations to water quality and/or water movement; and ▪ Disturbance to habitats/ species.	The National Planning Framework shares common goals with Energy 2020; a increasing energy efficiency and increasing the share of renewable energy in the European energy mix. Therefore, the National Planning Framework will contribute towards the plan and as such has no significant in-combination effects are envisaged.
The Renewable Energy Directive (2009/28/EC) Policy for the production and promotion of energy from renewable sources in the EU to implement 2020 strategy. The national 2020 target for Ireland is to source 16% from renewable resources (i.e. 40% electricity, 12% heat and 10% transport).	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Species mortality; ▪ Disturbance to habitats/species; ▪ Alterations to air quality; ▪ Alterations to water quality and/or water movement; and ▪ Introduction or spread of invasive species.	The NPF shares common goals with the Renewable Energy Directive; increasing energy efficiency and increasing the share of renewable energy in the European energy mix. The potential for in-combination effects would be expected to be in relation to electricity generation infrastructure and energy source production (e.g. biomass, feedstock). However, the main thrust of the plan is positive and would not be expected to conflict with any aspects of the NPF but to positively influence it going forward.
The EU Policy Framework for Climate and Energy in the period from 2020 to 2030 Sets targets for the period 2020 to 2030: ▪ Target of 27% renewable energy in the EU; ▪ Increase energy efficiency by 27% by 2020; and ▪ Reaching electricity interconnection target of 15% between EU countries by 2030.	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Species mortality; ▪ Disturbance to habitats/species; ▪ Alterations to air quality; ▪ Alterations to water quality and/or water movement; and ▪ Introduction or spread of invasive species.	This policy framework underwent impact assessment before publishing. This framework includes a number of aims which are linked to the aims under the NPF. The overall drive of both is to increase the use of renewable energy, increase energy efficiency and both contain measures aimed at increasing electricity interconnection. Therefore, there is potential for in-combination impacts.
Energy Roadmap 2050 This roadmap does not set specific energy targets at this point but does aim to achieve an 80% to 95% reduction in greenhouse gases compared to 1990	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Species mortality;	The key aim of the Roadmap is a guide to a low carbon Europe. This plan will be complimentary to the NPF and as such no significant in-combination impacts are envisaged.

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
levels by 2050.	▪ Disturbance to habitats/species; ▪ Alterations to air quality; ▪ Alterations to water quality and/or water movement; and ▪ Introduction or spread of invasive species.	
The National Renewable Electricity Policy and Development Framework (in prep) The main objective of this plan will be to guide the development of renewable electricity projects to ensure Ireland meets its future needs for renewable electricity in a sustainable manner.	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Species mortality; ▪ Disturbance to habitats/species; ▪ Alterations to water quality and/or water movement; ▪ Alterations to air quality; and ▪ Introduction or spread of invasive species.	This plan is undergoing its own AA but it is not yet completed. A key issue to be addressed will be the method of renewable electricity generation and associated ecological impacts. The potential for in-combination effects is unclear as the plan is not sufficiently developed at this stage, however, would be expected to be in relation to electricity generation infrastructure and potential emissions to air. However, the main thrust of the plan is positive and no in-combination effects are predicted.
The National Renewable Energy Action Plan (NREAP) The NREAP is produced as a requirement of the Renewable Energy Directive, and sets out Ireland's "*national targets for the share of energy from renewable sources consumed in transport, electricity and heating and cooling in 2020*".	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Species mortality; ▪ Disturbance to habitats/species; ▪ Alterations to water quality and/or water movement; ▪ Alterations to air quality; and ▪ Introduction or spread of invasive	This plan was not subject to AA, but some actions arising out of it have since been subject to AA owing to judicial review. The plan is positive in that its aims are to accelerate the uptake on renewable energy, thereby reducing the dependence on fossil fuels. The NPF will contribute to reaching the targets set in the NREAP and as such the plans are complementary.
Offshore Renewable Energy Development Plan (OREDP) The OREDP identifies the opportunity for the sustainable development of Ireland's abundant offshore renewable energy resources for increasing indigenous production of renewable electricity, thereby contributing to reductions in our greenhouse gas emissions, improving the security of our energy supply and creating jobs in the green economy. The	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Species mortality; ▪ Disturbance to habitats/species; ▪ Alterations to water quality and/or water movement; and ▪ Introduction or spread of invasive species.	This plan was subject to AA. No significant in-combination impacts are envisaged at plan level. Projects arising from the OREDP, and successors to the OREDP, will be required to undergo AA Screening which will ensure no in-combination effects further down the planning hierarchy.

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
OREDP sets out key principles, policy actions and enablers for delivery of Ireland's significant potential in this area. In this way, the OREDP provides a framework for the sustainable development of Ireland's offshore renewable energy resources.		
Harnessing our Ocean Wealth - an Integrated Marine Plan for Ireland 2012 Ireland aims to have the ocean become a key component for economic recovery and sustainable growth. As a national asset the potential of the Irish Sea is seen as something to be harnessed as outlined in Harnessing our Ocean Wealth an Integrated Marine Plan for Ireland 2012. Three high-level goals have been developed: Ireland will utilise market opportunities to improve the maritime economy and create sustainable growth; Improve the health of the sea ecosystems for economic benefit, and goods and services such as food, climate, health and well-being; and Encourage engagement with the sea to increase awareness of its value. There are two key targets: Double the value of our ocean wealth to 2.4% of GDP by 2030; and increase the turnover from our ocean economy to exceed €6.4bn by 2020.	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Hydromorphological impacts through infrastructure expansion; ▪ Alterations to water quality ▪ Disturbance to habitats and/or species; and ▪ Introduction or spread of invasive species.	This increased productivity and activity proposed in Harnessing our Ocean Wealth is likely to have implications for coastal areas e.g. impacts to coastal and marine European Sites as a result of a greater intensity of development and activity. The NPF includes a number of marine policies which also see greater productivity in the maritime space and as such there is potential for in-combination effects.
White Paper 'Irelands Transition to a Low Carbon Energy Future (2015 – 2030) *"A complete energy policy update, which sets out a framework to guide policy between now and 2030".* This instrument ensures supplies of energy to the public and private sector remain secure, affordable and competitive.	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Alterations to water quality; ▪ Alterations to air quality; ▪ Disturbance to habitats and/or species; and ▪ Introduction or spread of invasive species.	Ireland's White Paper underwent consultation and was developed with cognisance of environmental impact. This plan has similar aims to the NPF with the key focus being a reduction in national greenhouse gas emissions. No likely significant in-combination effects are envisaged.
Grid25 Implementation Programme 2011-2016 and Ireland's Grid Development Strategy, Your Grid Your Tomorrow	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation;	There is potential for in-combination effects with the NPF in terms of infrastructure requirements resulting in habitat loss, fragmentation and degradation and the associated ecological

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
The Grid25 Implementation Programme (IP) was a practical strategic overview of how the early stages of Grid25 were intended to be implemented. The IP identified the best current understanding of those parts of the transmission system that were envisaged as likely to be developed over the five years. Ireland's Grid Development Strategy, Your Grid Your Tomorrow, published in 2017 outlines that Grid25 will be replaced in 2017 with an updated Implementation Programme and will be subject to environmental assessment.	▪ Disturbance.	impacts. These plans are subject to AA therefore no significant in-combination impacts are envisaged at plan level.
National Policy Framework on Alternative Fuels Infrastructure in Transport 2017-2030 Supports the provision of refuelling infrastructure for alternative fuels, common technical standards and appropriate consumer information. The alternative fuel options could include electricity, hydrogen, biofuels and natural gas.	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Species mortality; ▪ Alterations to air quality; ▪ Disturbance to habitats/species; ▪ Alterations to water quality and/or water movement; and ▪ Introduction or spread of invasive species.	This plan underwent SEA and AA. The potential for in-combination effects is expected to be in relation to the production and generation of alternative fuels which could have resultant impacts such as emissions to air and land use change, and requirement for infrastructure. This plan would not be expected to conflict with any aspects of the NPF but to positively contribute to it going forward.
The Bioenergy Plan (draft) Aims to develop cost-effective harnessing of sustainable, indigenous, renewable energy resources. Also aims to reduce harmful emissions from traditional fuels. This plan will underpin the development of the sector in the period up to 2020 and lay foundations for its longer term growth and in contributing to renewable energy targets.	▪ Habitat loss or destruction; ▪ Habitat degradation or fragmentation; ▪ Species mortality; ▪ Alterations to water quality and/or water movement; ▪ Alteration to air quality; and ▪ Disturbance to habitats and/or species; ▪ Introduction or spread of invasive species.	This plan is currently undergoing its own AA but it is not yet completed. The potential for in-combination effects is expected to be in relation to the production of biomass for energy which can result in habitat loss and the associated ecological impacts as well as emissions to air during combustion. This plan would not be expected to conflict with any aspects of the NPF but to positively influence/inform it going forward.
National Peatlands Strategy (NPS) and Raised Bog SAC Management Plans Establishes principles in relation to Irish peatlands in order to guide Government policy. Aims to provide a	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Disturbance to habitats/species;	The Raised Bog SAC Management Plan was subject to its own AA. The NPF will ensure protection of peatlands in terms of land use utilisation. This plan would not be expected to conflict with any aspects of the NPF but to positively interact with it and outline a

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
framework for which all of the peatlands within the State can be managed responsibly in order to optimise their social, environmental and economic contribution. Aims to meet nature conservation obligations while having regard to national and local economic, social and cultural needs.	▪ Alterations to water quality and/or water movement; ▪ Alteration to air quality; ▪ Introduction or spread of invasive species.	series of considerations in relation to peatlands. Therefore there are no likely significant in-combination effects foreseen.
Food Wise 2025 Food Wise 2025 strategy identifies significant growth opportunities across all subsectors of the Irish agri-food industry. Growth Projection includes increasing the value added in the agri-food, fisheries and wood products sector by 70% to in excess of €13 billion.	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Species mortality; ▪ Alterations to water quality and/or water movement; ▪ Disturbance to habitats / species.	Spatial planning under the NPF is closely aligned with land use change related to agriculture and rural growth and continued development of the rural economy. Some likely significant impacts are addressed through the Rural Development Plan 2014-2020 through the requirement for Appropriate Assessment, monitoring and introducing several pieces of legislation under the Good Agricultural Practice for Protection of Waters (Regulations 2014, S.I. 31/2014). There is potential for significant in-combination impacts as intensification of the agricultural sector and the rural economy is promoted under the NPF.
The Common Agricultural Policy (CAP) A key agricultural policy with the main objectives of ensuring a decent standard of living for farmers and the provision of stable and safe food supply at affordable prices for consumers. The CAP through various iterations is the principal policy that drives agricultural management throughout the European Union. It recognises the economic and rural importance of agriculture through a system subsidies and support programmes.	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Disturbance to habitats/species; ▪ Species mortality; ▪ Alterations to water quality and/or water movement; ▪ Alterations to air quality; and ▪ Introduction or spread of invasive species.	Spatial planning under the NPF is closely aligned with land use change related to agriculture and rural growth and continued development of the rural economy. Some likely significant impacts are addressed through the Rural Development Plan 2014-2020 through the requirement for Appropriate Assessment, monitoring and introducing several pieces of legislation under the Good Agricultural Practice for Protection of Waters (Regulations 2014, S.I. 31/2014). There is potential for significant in-combination impacts as intensification of the agricultural sector and the rural economy is promoted under the NPF.
Action Plan for Rural Development Action Plan for Rural Development sets out the Government's approach for rural places in Ireland to grow and adapt through supportive measures which encourage innovation and build on the existing strengths of rural communities in Ireland.	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Disturbance to habitats/species; ▪ Species mortality; ▪ Alterations to water quality and/or water movement;	No AA appears to have been carried out for the Action Plan for Rural Development which includes over 230 actions focussed on developing the rural economy. As such there is potential for in combination impacts with the NPF and other agricultural plan and policies. AA screening of the Action Plan is required to offset the potential for in-combination effects.

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
	▪ Alterations to air quality; and ▪ Introduction or spread of invasive species.	
Rural Development Programme 2014-2020 Provides a new suite of rural development measures designed to enhance the competitiveness of the agri-food sector, achieve more sustainable management of natural resources and ensure a more balanced development of rural areas. Includes provisions under GLAS; Bio-Energy; nutrient management planning; "Carbon Navigator" software tool	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Disturbance to habitats/species; ▪ Species mortality; ▪ Alterations to water quality and/or water movement; ▪ Alterations to air quality; and ▪ Introduction or spread of invasive species.	The Rural Development Plan (RDP) was subject to its own AA. Mitigation in the RDP requires that Appropriate Assessment is to be carried out for all individual building, tourism or agricultural reclamation projects, stakeholder engagement and site based monitoring. With the required mitigation in the RDP, alongside the mitigation in the NPF, no significant in-combination impacts are predicted. The RDP policies are integrated into the NPF.
Forestry Programme 2014-2020 Provides Ireland's proposals for 100% state aid funding for a new Forestry Programme for the period. The measures proposed are consistent with "Forests, products and people Ireland's forest policy – a renewed vision". The Programme identifies the needs of the Forestry sector as: ▪ Increase forest cover ▪ Increase the production of forest biomass to meet renewable energy targets ▪ Support forest holders to actively manage their plantations	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Disturbance to habitats/species; ▪ Species mortality; ▪ Alterations to water quality and/or water movement; ▪ Alterations to air quality; and ▪ Introduction or spread of invasive species.	The Forestry Programme was subject to its own AA and includes a number of policies for the protection of habitats and species under the Birds and Habitats Directives. With the required mitigation in the Forestry Programme, alongside the mitigation in the NPF, no significant in-combination impacts are predicted.
Nitrates Directive (91/676/EEC) and Nitrates Action Programme (currently being updated) This Directive has the objective of reducing water pollution caused or induced by nitrates from agricultural sources and preventing further pollution. The NAP is Irelands response to implementing the directive.	▪ Habitat degradation; ▪ Disturbance to habitats/species; ▪ Alterations to water quality and/or water movement; ▪ Nutrient enrichment; and ▪ Alteration to air quality.	No risk of likely significant in-combination effects from the Directive as the primary purpose of is to improve environmental quality. Furthermore it is noted that the latest update to the NAP is undergoing AA and an NIS is in preparation. This will ensure appropriate mitigation is included to prevent significant in-combination effects from occurring.

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
The EU Sustainable Development Strategy (EU SDS) and **Our Sustainable Future: A Framework for Sustainable Development in Ireland (2012)** (national) The overarching sustainable development policy document in the EU. During the 2009 review the EU noted a number of unsustainable trends that require urgent action including a decrease in high energy consumption in the transport sector in line with the 2020 Strategy. At national level, **Our Sustainable Future: A Framework for Sustainable Development in Ireland (2012)** has followed the model used in the EU SDS.	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Species mortality; ▪ Disturbance to habitats/species; ▪ Alterations to water quality and/or water movement; and ▪ Introduction or spread of invasive species.	There is potential for in-combination effects with the NPF in terms of infrastructure requirements resulting in habitat loss, fragmentation, degradation and the associated ecological impacts. However, the main thrust of the plan is positive and would not be expected to conflict with any aspects of the NPF but to positively influence it going forward.
National Mitigation Plan 2017 Plan outlining the measures and actions of four specific sectors to mitigate climate change in the areas of transport, energy, the built environment and agriculture.	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Alterations to water quality and/or water movement; ▪ Disturbance; and ▪ In-combination impacts within the same scheme.	The NMP was subject to its own SEA and AA. The framework supports climate change mitigation. No risk of likely significant in-combination effects.
Smarter Travel 'A New Transport Policy for Ireland' 2009-2020 Sets out five key goals: to reduce overall travel demand; to maximise the efficiency of the transport network; to reduce reliance on fossil fuels; to reduce transport emissions; and to improve accessibility to transport.	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Species mortality; ▪ Alterations to air quality; ▪ Disturbance to habitats/species; ▪ Alterations to water quality and/or water movement; and ▪ Introduction or spread of invasive species.	There is potential for in-combination effects with the NPF in terms of infrastructure requirements resulting in habitat loss, fragmentation, degradation and the associated ecological impacts, potential collision impacts and/or disturbance. However the main thrust of the plan is overall positive as it relates to reducing emissions and reliance on fossil fuels in the transport sector and therefore will positively influence/inform the NPF going forward.
Water Framework Directive (2000/60/EC) The primary purpose of this Directive and the various pieces of national legislation that have enacted through the implementation of River Basin	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Disturbance to habitats/species; ▪ Alterations to water quality and/or water	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve ecological status. The proper management of agriculture, forestry and infrastructural development will contribute to achieving the objectives of the

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
Management Plans, is to achieve good status for all water bodies, with no deterioration in water body status.	movement; and ▪ Introduction or spread of invasive species.	WFD as developed through the RBMP. The second cycle draft River Basin Management Plan 2018-2021 has been published together with an NIS including mitigation to offset negative effects.
Marine Strategy Framework Directive (2008/56/EC) The Marine Strategy Framework Directive (MSFD) has adopted an ecosystem-based approach to protect and manage the marine environment. This forms an integral component of maritime spatial planning within the EU and requires Member States to develop a strategy to achieve or maintain good environmental status in their marine waters by 2020. Ireland has developed a Programme of Measures that will meet targets set in order to achieve or maintain good environmental status. This is of direct relevance to the RBMP which is required under the WFD which sets a goal of achieving good ecological status for all EU ground and surface waters (including intertidal, transitional and coastal waters), which directly complements the goal of good environmental status under the Marine Strategy Framework Directive. The Marine Spatial Planning Directive obliges all coastal Member States to establish maritime spatial plans as soon as possible and at the latest by 31st March 2021. This will help promote sustainable growth of maritime activities recognising the ever increasing use and exploitation of the maritime space and its resources by a number of sectors such as fishing, shipping, leisure, aquaculture and renewable energy.	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Disturbance to habitats/species; ▪ Alterations to water quality and/or water movement; and ▪ Introduction or spread of invasive species.	The MSFD Programme of Measures[19] have not been subject to AA as all measures included within the POMs are currently being applied in Ireland under existing directive implementation e.g. WFD POMs, marine planning and licensing etc. It is recommended that when the Maritime Spatial Plan(s) for Ireland are development, that they are subject to the AA process to avoid the potential for in-combination effects with other plans and programmes in the marine environment (particularly in the WFD) and to align land use planning with maritime spatial planning.
EU Groundwater Directive (2006/118/EC) This Directive establishes a regime, which sets groundwater quality standards and introduces	▪ Habitat degradation; ▪ Disturbance to habitats/species; ▪ Alterations to water quality and/or water	No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.

[19] http://www.housing.gov.ie/sites/default/files/public-consultation/files/outcome/msfd_poms_summary_report.pdf

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
measures to prevent or limit inputs of pollutants into groundwater.	movement; and ▪ Introduction or spread of invasive species.	
The Integrated Pollution Prevention Control Directive (96/61/EC) Objective is to achieve a high level of protection of the environment through measures to prevent in the first instance or to reduce emissions to air, water and land from industrial sources.	▪ Habitat degradation; ▪ Alterations to air quality; ▪ Disturbance to habitats/species; ▪ Alterations to water quality and/or water movement; and ▪ Introduction or spread of invasive species.	Particularly relevant to the electricity generation and transport sector. No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.
European Union Biodiversity Strategy to 2020 Aims to halt or reverse biodiversity loss and speed up the EU's transition towards a resource efficient and green economy as per the Convention on Biological Diversity.	▪ Habitat loss or destruction; ▪ Habitat fragmentation or degradation; ▪ Alterations to air quality; ▪ Disturbance to habitats/species; ▪ Alterations to water quality and/or water movement; and ▪ Introduction or spread of invasive species.	No risk of likely significant in-combination effects will result as the primary purpose of the Strategy is to halt the loss of habitat and species. One target is to increase the contribution of agriculture and forest to biodiversity, integrating more biodiversity needs into CAP and forest management plans. Opportunities exist in the implementation of the NPF to assist in achieving the objectives of the Strategy through consideration and integration of environmental issues throughout the spatial planning hierarchy.
Prioritised Action Framework for Natura 2000 (2014-2020) This plan identifies the range of actions needed to help improve the status of Ireland's habitats and wildlife.	▪ Alterations to air quality; ▪ Disturbance to habitats/species; ▪ Alterations to water quality and/or water movement; and ▪ Introduction or spread of invasive species.	No risk of likely significant in-combination effects as this plan is entirely positive in its actions. The framework supports climate change mitigation. The framework will assist in ensuring the Natura 2000 Network adapts to climate change.
Biodiversity Action Plan 2017-2021 (draft) Ireland's third iteration of the Biodiversity Action Plan (BAP), for conserving and restoring Ireland's biodiversity covering the period 2017 to 2021. The aims are to achieve Ireland's Vision for Biodiversity through addressing issues ranging from improving the management of protected areas to increasing awareness and appreciation of biodiversity and ecosystem services.	▪ None anticipated.	As the BAP is aimed at environmental protection, there are no in-combination effects.

7 MITIGATION

To further improve actions contained within the NPF and to address potential negative effects identified in this NIS, mitigation measures have been recommended for inclusion in the NPF and are outlined in

Table 7.1.

The NPF is a strategic plan which sets the framework for, and relies to a significant degree on, other policy, strategy and plan initiatives to achieve the objectives for a more coordinated approach to spatial planning, development and growth. Many of these have already undergone AA or are undergoing AA with development of specific mitigation which are or will be implemented. The measures committed to in these other plans will be essential to ensuring that the objectives of the NPF are met and that the NPF does not have adverse effects on any European Site.

Table 7.1 – AA Mitigation

Reference	***Amendment***
Chapter 2, NPO3c	*It is therefore proposed that a map is developed by each local authority, coordinated at the Regional Assembly level, showing potential infill and brownfield opportunities in order to spatially inform decision making on the suitability of these sites for further development or regeneration.*
Chapter 3, NPO7a	*It is recommended that the DHPLG develop a set of Guiding Principles which integrate biodiversity for Smart Growth in Urban and Rural areas to better inform lower level criteria and guide development.*
Chapter 3, NPO10	*That there is a presumption in favour of development that encourages more people, jobs and activity within existing urban areas, subject to development meeting appropriate standards, achieving targeted growth and subject to the outcome of an Appropriate Assessment.*
Chapter 3, NPO12	*It is therefore proposed that a map is developed by each local authority, coordinated at the Regional Assembly level, showing potential infill and brownfield opportunities in order to spatially inform decision making on the suitability of these sites for further development or regeneration.*
Chapter 4, NPO13	*This policy is broadly positive for rural communities however the Action Plan for Rural Development and it subsequent reviews should be subject to AA prior to implementation, if this has not already been completed.*
Chapter 4, NPO18b	*The following text is added to the policy:…and subject to environmental suitability of the sites.*
Chapter 4, NPO21	*Policy to be reworded to state:* *To facilitate the development of the rural economy through supporting an economically efficient and long-term sustainable agricultural and food sector, together with forestry, fishing and aquaculture and diversification into alternative on-farm and off-farm activities, whilst at the same time noting the importance of maintaining the natural landscape, and protecting the natural / built heritage which are vital to rural tourism through application of sustainable limits on productivity.*
Chapter 4, NPO24	*It is recommended that the DHPLG, DRCD and the DAFM liaise with the DCHG to identify a workable approach to identify synergies with national funding instruments to better align national funding with national biodiversity policy. This could be led by the Office of the Planning Regulator which has been proposed in the NPF.*
Chapter 5, NPO38	*No information is provided on the nature of the guidelines but it is recommended that*

Reference	***Amendment***
	they reflect the recent case law in relation to Appropriate Assessment and provide practical tools for planning authorities to complete their statutory obligations under the Planning and Development Act and the Birds and Natural habitats Regulations. Furthermore it is recommended that guidelines on site and route selection which identifies where and how European Sites should be considered be developed to support decision making.
Chapter 6, NPO42	*The development of strategic plans for the ports must be subject to AA.*
Chapter 7, NPO46	*The word economic to be replaced by "sustainable" to acknowledge that balance is needed with economics if the environment is to be fully protected.*
Chapter 7, NPO47	*Regional planning will need to consider the cumulative effects of any collaborative structures and the carrying capacity of the environmental receptors in terms of water quality, air quality, human disturbance and land use change and habitat loss.*
Chapter 7, NPO51	*Similar to the Wild Atlantic Way, large tourism initiatives must consider SEA and AA prior to implementation to offset any negative impacts.*
Chapter 9, National Strategic Outcome 6	*Empowered Rural communities: The Action Plan for Rural Development and it subsequent reviews should be subject to AA prior to implementation, if this has not already been completed.*

8 CONCLUSIONS

The NPO and NSO outlined in the draft NPF have been assessed in terms of the likely significant effects and where these would adversely affect the integrity of European Sites. The assessment identified that the majority of measures proposed in the draft NPF did not give rise to direct effects on European Sites and that, in the main, the effects identified were indirect in nature and could be mitigated.

All actions arising out of the mitigation measures of the NPF shall be required to conform to the mitigation measures contained within this NIS and to the relevant regulatory provisions aimed at preventing pollution or other environmental effects likely to adversely affect the integrity of European Sites. In addition, all lower level plans and projects arising from the implementation of the NPF will themselves be subject to the requirements of the Habitats Directive, as transposed into Irish law when details become known.

Furthermore it is noted that the draft NPF has acknowledged concerns raised through the SEA and AA processes by the inclusion of this policy which expressly requires AA of all plans, projects and activities requiring consent arising from the National Planning Framework. Furthermore, Chapter 10 of the NPF states that all investigative and feasibility studies to be carried out to support decision making in relation to the NPF should also include an environmental appraisal which considers the potential effects on the wider environment, including specifically the Natura 2000 Network. At the project level, all applications for development consents for projects emanating from any policies that may give rise to likely significant effects on the environment will need to be accompanied by an Ecological Impact Assessment Report; and a Natura Impact Statement if deemed necessary under the relevant legislation.

The conclusion of the NIS for the draft NPF is that, subject to the mitigation proposed in the NIS being incorporated, there will be no adverse effects on the integrity of any European Sites as a result of implementation of the NPF.

8.1 NEXT STEPS

This NIS will go on public display together with the draft NPF and the accompanying SEA Environmental Report and SFRA. Following this period of consultation, the DHPLG will consider all submissions prior to finalising the NPF. Where a submission on the NPF requires further assessment, it will be documented supplementary to the NIS. Thereafter and as part of this process, DHPLG, as the competent authority for the NPF, will conclude the Appropriate Assessment and document their determination. DHPLG will only adopt the NPF if it is satisfied that it will not adversely affect the integrity of any European Site either alone or in-combination with other plans and programmes and in view of the Sites conservation objectives.

Witten submission or observation on the draft framework or associated environmental reports can be made by email, preferably in 'word' format, to npf@housing.gov.ie or by logging on to www.npf.ie and following the instructions provided. Alternatively, responses can be posted to: NPF Submissions, Forward Planning Section, Department of Housing, Planning and Local Government, Custom House, Dublin 1, D01 W6X0.

The final date for responses in respect of this consultation is **noon on Friday 3rd November 2017**.

These submissions/ observations will be taken into consideration before finalisation of the draft NPF. Early responses would be appreciated to allow more time to clarify and resolve issues that may arise.

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APPENDIX A

Consultation Responses – AA Specific (Prior to Draft NPF)

Statutory Consultee	Issues Raised
DAHRRGA	Unclear whether NPF is land use plan for the purposes of Part XAB of Planning and Development Act
	If not, Part 5 Regulation 42 of the Birds and Habitats Regulations applies to the AA
	List of guidance provided on AA and the preparation of an NIS (Appendix 2 of the submission)
	General notes on preparation of NIS set out (Appendix 3 of the submission)
	Sources of available ecological information set out
	Where NIS/NIR identifies plan-level mitigation to be reflected in final plan
	Repeated cross-referencing to mitigation in other sections or reports may be used but do so clearly, consistently and unambiguously
	AA to take account of the NIS – obligations to address scientific uncertainties/ issues raised by other parties (e.g. Baltz and others vs. An Bord Pleanála; case C-258/11)
DAFM	The majority of marine European Sites are located inshore – existing mitigation measures include site-specific temporal and spatial restrictions and specific requirements for fishing methods
	Marine Protected Areas, in addition to Natura 2000, will be designated under the MSFD and may be wider in purpose than Natura 2000 network
	To note that the relationship between SPAs and forestry is under review
NIEA (DAERA)	Notice was provided of three newly proposed European and one new nationally designated sites.

Note: SEA Scoping Consultation responses were also provided by a number of non-statutory SEA Consultees. While not included in this table, the responses have been reviewed and considered in the preparation of the draft National Planning Framework, SEA Environmental Report and the Natura Impact Statement.

APPENDIX B

Special Areas of Conservation (SACs)
Republic of Ireland

SAC	Site Code	SAC	Site Code
Killyconny Bog (Cloghbally) SAC	000006	Great Island Channel SAC	001058
Lough Oughter & Associated Loughs SAC	000007	Kilkieran Lake & Castlefreke Dunes SAC	001061
Ballyallia Lake SAC	000014	Myross Wood SAC	001070
Ballycullinan Lake SAC	000016	Ballyness Bay SAC	001090
Ballyogan Lough SAC	000019	Coolvoy Bog SAC	001107
Black Head-Poulsallagh Complex SAC	000020	Dunragh Loughs/Pettigo Plateau SAC	001125
Danes Hole, Poulnalecka SAC	000030	Gweedore Bay & Islands SAC	001141
Dromore Woods & Loughs SAC	000032	Kindrum Lough SAC	001151
Inagh River Estuary SAC	000036	Muckish Mountain SAC	001179
Pouladatig Cave SAC	000037	Sheephaven SAC	001190
Lough Gash Turlough SAC	000051	Termon Strand SAC	001195
Moneen Mountain SAC	000054	Keeper Hill SAC	001197
Moyree River System SAC	000057	Glenasmole Valley SAC	001209
Poulnagordon Cave (Quin) SAC	000064	Aughrusbeg Machair &Lake SAC	001228
Ballymacoda (Clonpriest & Pillmore) SAC	000077	Courtmacsherry Estuary SAC	001230
Glengarriff Harbour & Woodland SAC	000090	Carrownagappul Bog SAC	001242
Clonakilty Bay SAC	000091	Cregduff Lough SAC	001251
Caha Mountains SAC	000093	Dog's Bay SAC	001257
Lough Hyne Nature Reserve And Environs SAC	000097	Gortnandarragh Limestone Pavement SAC	001271
Roaringwater Bay & Islands SAC	000101	Inisheer Island SAC	001275
Sheep's Head SAC	000102	Kiltiernan Turlough SAC	001285
St. Gobnet's Wood SAC	000106	Omey Island Machair SAC	001309
The Gearagh SAC	000108	Rusheenduff Lough SAC	001311
Three Castle Head To Mizen Head SAC	000109	Ross Lake & Woods SAC	001312
Aran Island (Donegal) Cliffs SAC	000111	Rosturra Wood SAC	001313
Ballintra SAC	000115	Termon Lough SAC	001321
Ballyarr Wood SAC	000116	Cloonee & Inchiquin Loughs, Uragh Wood SAC	001342
Croaghonagh Bog SAC	000129	Mucksna Wood SAC	001371
Donegal Bay (Murvagh) SAC	000133	Ballynafagh Lake SAC	001387
Durnesh Lough SAC	000138	Rye Water Valley/Carton SAC	001398
Fawnboy Bog/Lough Nacung SAC	000140	Arroo Mountain SAC	001403
Gannivegil Bog SAC	000142	Glen Bog SAC	001430
Horn Head & Rinclevan SAC	000147	Glenstal Wood SAC	001432
Inishtrahull SAC	000154	Clogher Head SAC	001459
Lough Eske And Ardnamona Wood SAC	000163	Clew Bay Complex SAC	001482
Lough Nagreany Dunes SAC	000164	Doogort Machair/Lough Doo SAC	001497
Lough Nillan Bog (Carrickatlieve) SAC	000165	Erris Head SAC	001501
Magheradrumman Bog SAC	000168	Keel Machair/Menaun Cliffs SAC	001513
Meenaguse/Ardbane Bog SAC	000172	Lough Cahasy, Lough Baun & Roonah Lough SAC	001529
Meentygrannagh Bog SAC	000173	Mocorha Lough SAC	001536
Curraghchase Woods SAC	000174	Castletownshend SAC	001547
Rathlin O'Birne Island SAC	000181	Urlaur Lakes SAC	001571
Sessiagh Lough SAC	000185	Castlesampson Esker SAC	001625
Slieve League SAC	000189	Annaghmore Lough (Roscommon) SAC	001626
Slieve Tooey/Tormore Island/Loughros	000190	Four Roads Turlough SAC	001637

SAC	Site Code	SAC	Site Code
Beg Bay SAC			
St. John's Point SAC	000191	Bricklieve Mountains & Keishcorran SAC	001656
Tranarossan & Melmore Lough SAC	000194	Knockalongy & Knockachree Cliffs SAC	001669
West Of Ardara/Maas Road SAC	000197	Lough Arrow SAC	001673
Baldoyle Bay SAC	000199	Streedagh Point Dunes SAC	001680
Howth Head SAC	000202	Liskeenan Fen SAC	001683
Lambay Island SAC	000204	Kilmuckridge-Tinnaberna Sandhills SAC	001741
Malahide Estuary SAC	000205	Kilpatrick Sandhills SAC	001742
North Dublin Bay SAC	000206	Holdenstown Bog SAC	001757
Rogerstown Estuary SAC	000208	Magherabeg Dunes SAC	001766
South Dublin Bay SAC	000210	Lough Carra/Mask Complex SAC	001774
Inishmaan Island SAC	000212	Pilgrim's Road Esker SAC	001776
Inishmore Island SAC	000213	Kilroosky Lough Cluster SAC	001786
River Shannon Callows SAC	000216	White Lough, Ben Loughs & Lough Doo SAC	001810
Coolcam Turlough SAC	000218	Lough Forbes Complex SAC	001818
Barroughter Bog SAC	000231	Split Hills &Long Hill Esker SAC	001831
Caherglassaun Turlough SAC	000238	Philipston Marsh SAC	001847
Castletaylor Complex SAC	000242	Galmoy Fen SAC	001858
Cloonmoylan Bog SAC	000248	Derryclogher (Knockboy) Bog SAC	001873
Coole-Garryland Complex SAC	000252	Glanmore Bog SAC	001879
Croaghill Turlough SAC	000255	Meenaguse Scragh SAC	001880
Derrycrag Wood Nature Reserve SAC	000261	Maulagowna Bog SAC	001881
Galway Bay Complex SAC	000268	Mullaghanish Bog SAC	001890
Inishbofin & Inishshark SAC	000278	Unshin River SAC	001898
Kilsallagh Bog SAC	000285	Cloonakillina Lough SAC	001899
Kiltartan Cave (Coole) SAC	000286	Glendree Bog SAC	001912
Levally Lough SAC	000295	Sonnagh Bog SAC	001913
Lisnageeragh Bog & Ballinastack Turlough SAC	000296	Glenade Lough SAC	001919
Lough Corrib SAC	000297	Bellacorick Bog Complex SAC	001922
Lough Cutra SAC	000299	East Burren Complex SAC	001926
Lough Lurgeen Bog/Glenamaddy Turlough SAC	000301	Mweelrea/Sheeffry/Erriff Complex SAC	001932
Lough Rea SAC	000304	Comeragh Mountains SAC	001952
Loughatorick South Bog SAC	000308	Croaghaun/Slievemore SAC	001955
Peterswell Turlough SAC	000318	Boyne Coast & Estuary SAC	001957
Pollnaknockaun Wood Nature Reserve SAC	000319	Ballyhoorisky Point To Fanad Head SAC	001975
Rahasane Turlough SAC	000322	Lough Gill SAC	001976
Rosroe Bog SAC	000324	Tamur Bog SAC	001992
Shankill West Bog SAC	000326	Bellacragher Saltmarsh SAC	002005
Slyne Head Islands SAC	000328	Ox Mountains Bogs SAC	002006
Tully Mountain SAC	000330	Maumturk Mountains SAC	002008
Akeragh, Banna & Barrow Harbour SAC	000332	Old Domestic Building (Keevagh) SAC	002010
Ballinskelligs Bay & Inny Estuary SAC	000335	North Inishowen Coast SAC	002012
Castlemaine Harbour SAC	000343	The Twelve Bens/Garraun Complex SAC	002031
Old Domestic Building, Dromore Wood SAC	000353	Boleybrack Mountain SAC	002032
Kilgarvan Ice House SAC	000364	Connemara Bog Complex SAC	002034
Killarney National Park, Macgillycuddy's Reeks & Caragh River	000365	Ballyhoura Mountains SAC	002036

SAC	Site Code	SAC	Site Code
Catchment SAC			
Lough Yganavan & Lough Nambrackdarrig SAC	000370	Carrigeenamronety Hill SAC	002037
Mount Brandon SAC	000375	Old Domestic Building, Curraglass Wood SAC	002041
Sheheree (Ardagh) Bog SAC	000382	Cloghernagore Bog & Glenveagh National Park SAC	002047
Ballynafagh Bog SAC	000391	Tralee Bay & Magharees Peninsula, West To Cloghane SAC	002070
Pollardstown Fen SAC	000396	Slyne Head Peninsula SAC	002074
Red Bog, Kildare SAC	000397	Ballinafad SAC	002081
Hugginstown Fen SAC	000404	Newhall & Edenvale Complex SAC	002091
The Loughans SAC	000407	Old Domestic Building, Askive Wood SAC	002098
Slieve Bloom Mountains SAC	000412	Corliskea/Trien/Cloonfelliv Bog SAC	002110
Lough Melvin SAC	000428	Kilkieran Bay & Islands SAC	002111
Barrigone SAC	000432	Ballyseedy Wood SAC	002112
Tory Hill SAC	000439	Lough Coy SAC	002117
Lough Ree SAC	000440	Barnahallia Lough SAC	002118
Fortwilliam Turlough SAC	000448	Lough Nageeron SAC	002119
Carlingford Mountain SAC	000453	Lough Bane & Lough Glass SAC	002120
Dundalk Bay SAC	000455	Lough Lene SAC	002121
Killala Bay/Moy Estuary SAC	000458	Wicklow Mountains SAC	002122
Ardkill Turlough SAC	000461	Ardmore Head SAC	002123
Balla Turlough SAC	000463	Bolingbrook Hill SAC	002124
Bellacorick Iron Flush SAC	000466	Anglesey Road SAC	002125
Mullet/Blacksod Bay Complex SAC	000470	Pollagoona Bog SAC	002126
Brackloon Woods SAC	000471	Murvey Machair SAC	002129
Broadhaven Bay SAC	000472	Tully Lough SAC	002130
Ballymaglancy Cave, Cong SAC	000474	Lough Nageage SAC	002135
Carrowkeel Turlough SAC	000475	Lower River Suir SAC	002137
Carrowmore Lake Complex SAC	000476	Mountmellick SAC	002141
Cloughmoyne SAC	000479	Newport River SAC	002144
Clyard Kettle-Holes SAC	000480	Lisduff Fen SAC	002147
Cross Lough (Killadoon) SAC	000484	Newgrove House SAC	002157
Corraun Plateau SAC	000485	Kenmare River SAC	002158
Doocastle Turlough SAC	000492	Mulroy Bay SAC	002159
Duvillaun Islands SAC	000495	Long Bank SAC	002161
Flughany Bog SAC	000497	River Barrow & River Nore SAC	002162
Glenamoy Bog Complex SAC	000500	Lough Golagh & Breesy Hill SAC	002164
Greaghans Turlough SAC	000503	Lower River Shannon SAC	002165
Kilglassan/Caheravoostia Turlough Complex SAC	000504	Blackwater River (Cork/Waterford) SAC	002170
Inishkea Islands SAC	000507	Bandon River SAC	002171
Lackan Saltmarsh & Kilcummin Head SAC	000516	Blasket Islands SAC	002172
Lough Gall Bog SAC	000522	Blackwater River (Kerry) SAC	002173
Shrule Turlough SAC	000525	Leannan River SAC	002176
Moore Hall (Lough Carra) SAC	000527	Lough Dahybaun SAC	002177
Oldhead Wood SAC	000532	Towerhill House SAC	002179
Owenduff/Nephin Complex SAC	000534	Gortacarnaun Wood SAC	002180
Skealoghan Turlough SAC	000541	Drummin Wood SAC	002181
Slieve Fyagh Bog SAC	000542	Slieve Mish Mountains SAC	002185

SAC	Site Code	SAC	Site Code
All Saints Bog & Esker SAC	000566	Drongawn Lough SAC	002187
Charleville Wood SAC	000571	Farranamanagh Lough SAC	002189
Clara Bog SAC	000572	Ireland's Eye SAC	002193
Ferbane Bog SAC	000575	Glenloughaun Esker SAC	002213
Fin Lough (Offaly) SAC	000576	Killeglan Grassland SAC	002214
Mongan Bog SAC	000580	Island Fen SAC	002236
Moyclare Bog SAC	000581	Lough Derg, North-East Shore SAC	002241
Raheenmore Bog SAC	000582	Clare Island Cliffs SAC	002243
Cuilcagh - Anierin Uplands SAC	000584	Ardrahan Grassland SAC	002244
Sharavogue Bog SAC	000585	Old Farm Buildings, Ballymacrogan SAC	002245
Ballinturly Turlough SAC	000588	Ballycullinan, Old Domestic Building SAC	002246
Bellanagare Bog SAC	000592	Toonagh Estate SAC	002247
Callow Bog SAC	000595	The Murrough Wetlands SAC	002249
Carrowbehy/Caher Bog SAC	000597	Carrowmore Dunes SAC	002250
Cloonchambers Bog SAC	000600	Thomastown Quarry SAC	002252
Derrinea Bog SAC	000604	Ballyprior Grassland SAC	002256
Lough Fingall Complex SAC	000606	Moanour Mountain SAC	002257
Errit Lough SAC	000607	Silvermines Mountains West SAC	002258
Lisduff Turlough SAC	000609	Tory Island Coast SAC	002259
Lough Croan Turlough SAC	000610	Magharee Islands SAC	002261
Lough Funshinagh SAC	000611	Valencia Harbour/Portmagee Channel SAC	002262
Mullygollan Turlough SAC	000612	Kerry Head Shoal SAC	002263
Cloonshanville Bog SAC	000614	Kilkee Reefs SAC	002264
Ballysadare Bay SAC	000622	Kingstown Bay SAC	002265
Ben Bulben, Gleniff & Glenade Complex SAC	000623	Achill Head SAC	002268
Bunduff Lough &Machair/Trawalua/Mullaghmore SAC	000625	Carnsore Point SAC	002269
Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC	000627	Wicklow Reef SAC	002274
Lough Hoe Bog SAC	000633	Askeaton Fen Complex SAC	002279
Lough Nabrickkeagh Bog SAC	000634	Dunbeacon Shingle SAC	002280
Templehouse And Cloonacleigha Loughs SAC	000636	Reen Point Shingle SAC	002281
Turloughmore (Sligo) SAC	000637	Rutland Island & Sound SAC	002283
Union Wood SAC	000638	Lough Swilly SAC	002287
Ballyduff/Clonfinane Bog SAC	000641	Carrowbaun, Newhall And Ballylee Turloughs SAC	002293
Galtee Mountains SAC	000646	Cahermore Turlough SAC	002294
Kilcarren-Firville Bog SAC	000647	Ballinduff Turlough SAC	002295
Helvick Head SAC	000665	Williamstown Turloughs SAC	002296
Nier Valley Woodlands SAC	000668	River Moy SAC	002298
Tramore Dunes & Backstrand SAC	000671	River Boyne & River Blackwater SAC	002299
Garriskil Bog SAC	000679	River Finn SAC	002301
Lough Ennell SAC	000685	Dunmuckrum Turloughs SAC	002303
Lough Owel SAC	000688	Carlingford Shore SAC	002306
Scragh Bog SAC	000692	Slieve Bernagh Bog SAC	002312
Ballyteige Burrow SAC	000696	Ballymore Fen SAC	002313
Bannow Bay SAC	000697	Old Domestic Buildings, Rylane SAC	002314
Cahore Polders & Dunes SAC	000700	Glanlough Woods SAC	002315
Lady's Island Lake SAC	000704	Ratty River Cave SAC	002316

SAC	Site Code	SAC	Site Code
Saltee Islands SAC	000707	Cregg House Stables, Crusheen SAC	002317
Screen Hills SAC	000708	Knockanira House SAC	002318
Tacumshin Lake SAC	000709	Kilkishen House SAC	002319
Raven Point Nature Reserve SAC	000710	Kildun Souterrain SAC	002320
Ballyman Glen SAC	000713	Glendine Wood SAC	002324
Bray Head SAC	000714	Mouds Bog SAC	002331
Carriggower Bog SAC	000716	Coolrain Bog SAC	002332
Deputy's Pass Nature Reserve SAC	000717	Knockacoller Bog SAC	002333
Glen Of The Downs SAC	000719	Carn Park Bog SAC	002336
Knocksink Wood SAC	000725	Crosswood Bog SAC	002337
Buckroney-Brittas Dunes & Fen SAC	000729	Drumalough Bog SAC	002338
Vale Of Clara (Rathdrum Wood) SAC	000733	Ballynamona Bog & Corkip Lough SAC	002339
Hook Head SAC	000764	Moneybeg & Clareisland Bogs SAC	002340
Blackstairs Mountains SAC	000770	Ardagullion Bog SAC	002341
Slaney River Valley SAC	000781	Mount Hevey Bog SAC	002342
Cullahill Mountain SAC	000831	Tullaher Lough & Bog SAC	002343
Spahill & Clomantagh Hill SAC	000849	Brown Bog SAC	002346
Clonaslee Eskers & Derry Bog SAC	000859	Camderry Bog SAC	002347
Lisbigney Bog SAC	000869	Clooneen Bog SAC	002348
Ridge Road, SW Of Rapemills SAC	000919	Corbo Bog SAC	002349
The Long Derries, Edenderry SAC	000925	Curraghlehanagh Bog SAC	002350
Clare Glen SAC	000930	Moanveanlagh Bog SAC	002351
Kilduff, Devilsbit Mountain SAC	000934	Monivea Bog SAC	002352
Silvermine Mountains SAC	000939	Redwood Bog SAC	002353
Corratirrim SAC	000979	Tullaghanrock Bog SAC	002354
Ballyteige (Clare) SAC	000994	Ardgraigue Bog SAC	002356
Ballyvaughan Turlough SAC	000996	Blackwater Bank SAC	002953
Glenomra Wood SAC	001013	West Connacht Coast SAC	002998
Carrowmore Point To Spanish Point & Islands SAC	001021	Hemptons Turbot Bank SAC	002999
Barley Cove To Ballyrisode Point SAC	001040	Rockabill to Dalkey Island SAC	003000
Cleanderry Wood SAC	001043	Codling Fault Zone SAC	003015
Derrinlough (Cloonkeenleananode) Bog SAC	002197	Girley (Drewstown) Bog SAC	002203
Ballygar (Aghrane) Bog SAC	002199	Wooddown Bog SAC	002205
Aughrim (Aghrane) Bog SAC	002200	Scohaboy (Sopwell) Bog SAC	002206
Derragh Bog SAC	002201	Arragh More (Derrybreen) Bog SAC	002207
Mount Jessop Bog SAC	002202	-	-

Offshore SAC	Site Code	Offshore SAC	Site Code
Belgica Mound Province SAC	002327	North West Porcupine Bank SAC	002330
Hovland Mound Province SAC	002328	Porcupine Bank Canyon SAC	003001
South-West Porcupine Bank SAC	002329	South-East Rockall Bank SAC	003002

APPENDIX C

Special Protection Areas (SPAs)
Republic of Ireland

Special Protection Area (SPA)	Site Code	Special Protection Area (SPA)	Site Code
Saltee Islands SPA	004002	Pettigo Plateau Nature Reserve SPA	004099
Puffin Island SPA	004003	Inishtrahull SPA	004100
Inishkea Islands SPA	004004	Ballykenny-Fisherstown Bog SPA	004101
Cliffs of Moher SPA	004005	Garriskil Bog SPA	004102
North Bull Island SPA	004006	All Saints Bog SPA	004103
Skelligs SPA	004007	Bellanagare Bog SPA	004105
Blasket Islands SPA	004008	Coole-Garryland SPA	004107
Lady's Island Lake SPA	004009	Eirk Bog SPA	004108
Drumcliff Bay SPA	004013	The Gearagh SPA	004109
Rockabill SPA	004014	Lough Nillan Bog SPA	004110
Rogerstown Estuary SPA	004015	Duvillaun Islands SPA	004111
Baldoyle Bay SPA	004016	Howth Head Coast SPA	004113
Mongan Bog SPA	004017	Illaunonearaun SPA	004114
The Raven SPA	004019	Inishduff SPA	004115
Ballyteigue Burrow SPA	004020	Inishkeel SPA	004116
Old Head of Kinsale SPA	004021	Ireland's Eye SPA	004117
Ballycotton Bay SPA	004022	Keeragh Islands SPA	004118
Ballymacoda Bay SPA	004023	Loop Head SPA	004119
South Dublin Bay and River Tolka Estuary SPA	004024	Rathlin O'Birne Island SPA	004120
Broadmeadow/Swords Estuary SPA	004025	Roaninish SPA	004121
Dundalk Bay SPA	004026	Skerries Islands SPA	004122
Tramore Back Strand SPA	004027	Sovereign Islands SPA	004124
Blackwater Estuary SPA	004028	Magharee Islands SPA	004125
Castlemaine Harbour SPA	004029	Wicklow Head SPA	004127
Cork Harbour SPA	004030	Ballysadare Bay SPA	004129
Inner Galway Bay SPA	004031	Illancrone and Inishkeeragh SPA	004132
Dungarvan Harbour SPA	004032	Aughris Head SPA	004133
Bannow Bay SPA	004033	Lough Rea SPA	004134
Trawbreaga Bay SPA	004034	Ardboline Island and Horse Island SPA	004135
Cummeen Strand SPA	004035	Clare Island SPA	004136
Killala Bay/Moy Estuary SPA	004036	Dovegrove Callows SPA	004137
Blacksod Bay/Broadhaven SPA	004037	Lough Croan Turlough SPA	004139
Killarney National Park SPA	004038	Four Roads Turlough SPA	004140
Derryveagh And Glendowan Mountains SPA	004039	Cregganna Marsh SPA	004142
Wicklow Mountains SPA	004040	Cahore Marshes SPA	004143
Ballyallia Lough SPA	004041	High Island, Inishshark and Davillaun SPA	004144
Lough Corrib SPA	004042	Durnesh Lough SPA	004145
Lough Derravaragh SPA	004043	Malin Head SPA	004146
Lough Ennell SPA	004044	Fanad Head SPA	004148
Glen Lough SPA	004045	Falcarragh to Meenlaragh SPA	004149
Lough Iron SPA	004046	West Donegal Coast SPA	004150
Lough Owel SPA	004047	Donegal Bay SPA	004151
Lough Gara SPA	004048	Inishmore SPA	004152
Lough Oughter SPA	004049	Dingle Peninsula SPA	004153
Lough Arrow SPA	004050	Iveragh Peninsula SPA	004154
Lough Carra SPA	004051	Beara Peninsula SPA	004155
Carrowmore Lake SPA	004052	Sheep's Head to Toe Head SPA	004156
Lough Cutra SPA	004056	River Nanny Estuary and Shore SPA	004158

Special Protection Area (SPA)	Site Code	Special Protection Area (SPA)	Site Code
Lough Derg (Donegal) SPA	004057	Slyne Head To Ardmore Point Islands SPA	004159
Lough Derg (Shannon) SPA	004058	Slieve Bloom Mountains SPA	004160
Lough Fern SPA	004060	Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA	004161
Lough Kinale and Derragh Lough SPA	004061	Mullaghanish to Musheramore Mountains SPA	004162
Lough Mask SPA	004062	Slievefelim to Silvermines Mountains SPA	004165
Poulaphouca Reservoir SPA	004063	Slieve Beagh SPA	004167
Lough Ree SPA	004064	Slieve Aughty Mountains SPA	004168
Lough Sheelin SPA	004065	Cruagh Island SPA	004170
The Bull and The Cow Rocks SPA	004066	Dalkey Islands SPA	004172
Inishmurray SPA	004068	Deenish Island and Scariff Island SPA	004175
Lambay Island SPA	004069	Bills Rocks SPA	004177
Stags of Broad Haven SPA	004072	Connemara Bog Complex SPA	004181
Tory Island SPA	004073	Mid-Clare Coast SPA	004182
Illanmaster SPA	004074	The Murrough SPA	004186
Lough Swilly SPA	004075	Sligo/Leitrim Uplands SPA	004187
Wexford Harbour and Slobs SPA	004076	Tralee Bay Complex SPA	004188
River Shannon and River Fergus Estuaries SPA	004077	Kerry Head SPA	004189
Carlingford Lough SPA	004078	Galley Head to Duneen Point SPA	004190
Boyne Estuary SPA	004080	Seven Heads SPA	004191
Clonakilty Bay SPA	004081	Helvick Head to Ballyquin SPA	004192
Greers Isle SPA	004082	Mid-Waterford Coast SPA	004193
Inishbofin, Inishdooey and Inishbeg SPA	004083	Horn Head to Fanad Head SPA	004194
Inishglora and Inishkeeragh SPA	004084	Cross Lough (Killadoon) SPA	004212
River Little Brosna Callows SPA	004086	Courtmacsherry Bay SPA	004219
Lough Foyle SPA	004087	Corofin Wetlands SPA	004220
Rahasane Turlough SPA	004089	Illaunnanoon SPA	004221
Sheskinmore Lough SPA	004090	Mullet Peninsula SPA	004227
Stabannan-Braganstown SPA	004091	Lough Conn and Lough Cullin SPA	004228
Tacumshin Lake SPA	004092	West Donegal Islands SPA	004230
Termoncarragh Lake and Annagh Machair SPA	004093	Inishbofin, Omey Island and Turbot Island SPA	004231
Blackwater Callows SPA	004094	River Boyne and River Blackwater SPA	004232
Kilcolman Bog SPA	004095	River Nore SPA	004233
Middle Shannon Callows SPA	004096	Ballintemple and Ballygilgan SPA	004234
River Suck Callows SPA	004097	Doogort Machair SPA	004235
Owenduff/Nephin Complex SPA	004098	-	-

APPENDIX D

Special Areas of Conservation (SAC)
Northern Ireland

Special Area of Conservation (SAC)	*Site Code*	*Special Area of Conservation (SAC)*	*Site Code*
Cuilcagh Mountain *	UK0016603	Bann Estuary	UK0030084
Pettigoe Plateau *	UK0016607	Binevenagh	UK0030089
Fairy Water Bogs	UK0016611	Cladagh (Swanlinbar) River	UK0030116
Magilligan	UK0016613	Moneygal Bog	UK0030211
Upper Lough Erne	UK0016614	Moninea Bog	UK0030212
Eastern Mournes	UK0016615	Owenkillew River	UK0030233
Monawilkin	UK0016619	Rostrevor Wood	UK0030268
Derryleckagh	UK0016620	Slieve Gullion	UK0030277
Magheraveely Marl Loughs *	UK0016621	West Fermanagh Scarplands	UK0030300
Slieve Beagh	UK0016622	River Foyle and Tributaries *	UK0030320
Largalinny	UK0030045	River Roe and Tributaries	UK0030360
Lough Melvin *	UK0030047	River Faughan and Tributaries	UK0030361
Fardrum and Roosky Turloughs	UK0030068	Skerries and Causeway	UK0030383
Ballynahone Bog	UK0016599	Rea's Wood and Farr's Bay	UK0030244
Garron Plateau	UK0016606	Turmennan	UK0030291
Teal Lough	UK0016608	Upper Ballinderry River	UK0030296
Black Bog	UK0016609	Wolf Island Bog	UK0030303
Garry Bog	UK0016610	Aughnadarragh Lough	UK0030318
Murlough	UK0016612	Ballykilbeg	UK0030319
Strangford Lough	UK0016618	Cranny Bogs	UK0030321
Rathlin Island	UK0030055	Curran Bog	UK0030322
Banagher Glen	UK0030083	Dead Island Bog	UK0030323
Breen Wood	UK0030097	Deroran Bog	UK0030324
Carn – Glenshane Pass	UK0030110	Tonnagh Beg Bog	UK0030325
Hollymount	UK0030169	Tully Bog	UK0030326
Lecale Fens	UK0030180	Red Bay	UK0030365
Main Valley Bogs	UK0030199	The Maidens	UK0030384
Montiaghs Moss	UK0030214	Pisces Reef Complex	UK0030379
North Antrim Coast	UK0030224	North Channel	UK0030399
Peatlands Park	UK0030236	-	-

APPENDIX E

Special Protection Areas (SPAs)
Northern Ireland

Special Protection Area (SPA)	Site Code
Lough Foyle	UK9020031
Pettigoe Plateau	UK9020051
Upper Lough Erne	UK9020071
Slieve Beagh-Mullaghfad-Lisnaskea	UK9020302
Carlingford Lough	UK9020161
Belfast Lough	UK9020101
Larne Lough	UK9020042
Strangford Lough	UK9020111
Rathlin Island	UK9020011
Killough Bay	UK9020221
Outer Ards	UK9020271
Belfast Lough Open Water	UK9020290
Sheep Island	UK9020021
Antrim Hills	UK9020301
Copeland Islands	UK9020291
Lough Neagh and Lough Beg	UK9020091
East Coast (Marine)	UK9020320
Carlingford Lough (proposed marine extension)	UK9020161

APPENDIX F

Screening for Appropriate Assessment

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1 INTRODUCTION

The Department of Housing, Planning, Community and Local Government (DHPCLG)[1] is currently preparing a National Planning Framework (hereafter referred to as the NPF), which will provide context for planning development for the next 20 years. It will have a focus on economic development and investment in housing, water services, transport, communications, energy, health and education infrastructure. The objectives of the NPF will be to establish a broad national plan for the Government in relation to the strategic planning of urban and rural areas, to secure regional development, and to secure the co-ordination of regional spatial and economic strategies and city and county development plans. The NPF will be a long-term, 20 year development strategy which sets out the vision for Ireland in terms of economic activity, social progress and environmental quality, through co-ordinated policy, investment and action at national, regional and local levels. The framework will succeed the previous National Spatial Strategy (NSS) first developed in 2002.[2]

This report comprises information in support of screening for Appropriate Assessment (AA) of the NPF in line with the requirements of Article 6(3) of the EU Habitats Directive (92/43/EEC) on the Conservation of Natural Habitats and of Wild Fauna and Flora as transposed into Irish law through the European Communities (Birds and Natural Habitats) Regulations as amended.

Appropriate Assessment is a process for undertaking a comprehensive ecological impact assessment of a plan or project, examining its implications, on its own or in-combination with other plans and projects, on one or more European Sites in view of the sites' Conservation Objectives, as referred to in Article 6(3) of the EU Habitats Directive.

1.1 LEGISLATIVE CONTEXT FOR APPROPRIATE ASSESSMENT

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 the Natura 2000 Network. These are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/ECC) as codified by Directive 2009/147/EC (the Birds Directive), collectively 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 (Annex 1.1). Article 6(3) establishes the requirement for AA:

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

[1] Formerly the Department of the Environment, Community and Local Government (DECLG)
[2] DEHLG (2002) *National Spatial Strategy 2002-2020: People, Places and Potential*. Retrieved http://nss.ie/pdfs/Completea.pdf.

that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

Article 6(4) states:

If, in spite of a negative assessment of the implications for the [European] 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.

The Habitats Directive has been transposed into Irish law by the Planning and Development Act 2000 (as amended) and the European Communities (Birds and Natural Habitats) Regulations 2011 as amended. In the context of the NPF, the governing legislation is principally Article 27 of the Birds and Natural Habitats Regulations which sets out the duties of public authorities (in this case the DHPCLG) relating to nature conservation and Article 42 which addresses screening for AA and/or AA of implications for European Sites. If screening determines the likelihood for significant effects on a European Site, then full AA must be carried out for the plan, including the compilation of a Natura Impact Statement (NIS) to inform the decision making process.

1.2 PURPOSE OF AA SCREENING

The purpose of the screening for AA is *to assess, in view of the best scientific knowledge and in view of the conservation objectives of the sites, if that plan or project, individually or in combination with other plans or projects is likely to have a significant effect on the site.*

Screening is the process that addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3):

- Whether a plan or project is directly connected to or necessary for the management of the site, and
- Whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a European Site in view of its Conservation Objectives.

It is the responsibility of the public authority to carry out AA screening and record their AA screening determination.

1.3 OVERLAP WITH THE SEA OF THE NPF

An SEA is being carried out concurrently with the AA process. The purpose of the SEA is to evaluate at an early stage, the range of environmental consequences that may occur as a result of implementing the NPF and to give interested parties an opportunity to comment upon the perceived or actual environmental impacts of the proposal. There is a degree of overlap between the requirements of both the SEA and AA and in accordance with best practice, an integrated process of sharing gathered data, such as that potentially affecting the integrity (threats and sensitivities) of

European Sites has been carried out. These processes together have informed and shaped the development of the NPF.

It is also noted that there are issues relevant to the Habitats Directive that are not strictly related to AA. These include Article 10 and 12 of the Directive. In these cases, the issues have been brought forward to the biodiversity, flora and fauna section of the SEA and have been addressed in that context as part of the wider environmental assessments informing the NPF.

2 OVERVIEW OF THE NATIONAL PLANNING FRAMEWORK

2.1 BACKGROUND

In 2002, the Government launched the (NSS) as a spatial plan to underpin balanced regional development. The plan was based on the identification of nine 'gateways' comprising twelve cities and towns and nine 'hubs' comprising eleven towns. Each was to be built up with critical scale and mass to provide a focus to influence wider regional development and provide a spatial framework to encourage development away from the Greater Dublin Area. Over a decade on, the proposals under the NSS have clearly not been realised and it is now considered time to revisit national spatial planning based on lessons learned from the past decade.

Some of the reasons behind the short-comings of the NSS were:

- The National Development Plan 2007-2013 was aligned with the NSS but it was superseded by the economic downturn; and
- A €300m NSS 'Gateway Innovation Fund', launched in 2007, did not materialise; and
- Other criticisms levelled at the NSS include: the designation of too many centres; created a perception of 'winners and losers'; wasn't adequately supported by the political system; relaxation of controls on new rural housing; lacked an economic dimension; and did not have statutory legislative backing.

Fifteen years on, some of the key ambitions of the NSS have not been realised with development-driven planning and sprawl continuing to be prevalent. The reality of the NSS has led to unanticipated consequences in terms of population growth and regional development. Principle among the consequences is that the level of population growth apparent in 22 designated NSS gateways and hubs was actually replicated in 22 other non-NSS designated settlements that were much smaller to begin with in 2002. The average population of the 22 fastest growing towns in 2002 was five times smaller, or just under 6,000 people, than the average population of the 22 gateway and hub settlements, which was just under 30,000 people.

In most cases the rapid growth trajectory of the fastest growing towns in Ireland over the past twenty years had commenced prior to 2002, but publication of the NSS did not alter this. Many of these trends were identified in a review of the NSS undertaken by the DECLG in 2010[3] and it is now considered time to revisit national spatial planning based on lessons learned from the past.

2.2 PURPOSE OF THE NATIONAL PLANNING FRAMEWORK

The purpose of the NPF is to provide a focal point for spatial plans throughout the planning hierarchy. It will provide a framework for the new Regional Spatial and Economic Strategies (RSESs) by the three new Regional Assemblies and the associated enhancement of the economic development focus of local authorities as per the Local Government Reform Act 2014. The NPF will co-ordinate the strategic planning of urban and rural areas in a regional development context to secure overall proper planning and development, as well as co-ordination of regional spatial and economic strategies, city and county development plans, in addition to local economic and

[3] Implementing the National Spatial Strategy: 2010 Update and Outlook Harnessing Potential, Delivering Competitiveness, Achieving Sustainability October 2010, DECLG.

community plans, local area plans and local development. **Figure 2.1** shows the proposed planning hierarchy going forward.

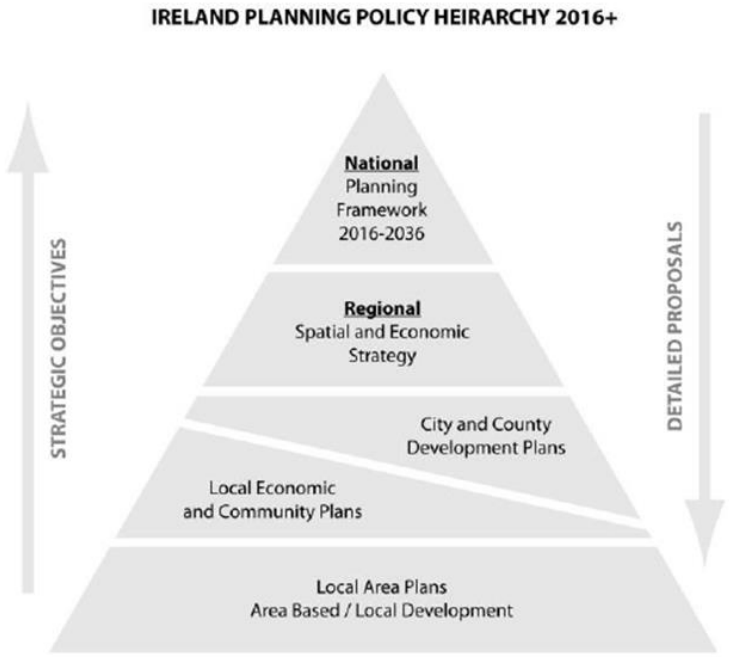


Figure 2.1 – Ireland's Planning Policy Hierarchy Post 2016[4]

The DHPCLG is leading the preparation of the NPF on behalf of Government with input from other departments and agencies which themselves are tasked with developing policy on long-term and place-based public policy and investment. The purpose of this inclusive approach is to allow shared national development goals, including improved living standards, quality of life, prosperity, competitiveness and environmental sustainability, to be more broadly considered with the intention of providing greater clarity for the private sector and unlocking investment.

The framework is also intended to assist the achievement of more effective regional development and as such the regional dimension is critical to successful outcomes. The RSES will support the delivery of the NPF by both feeding into and feeding off the national framework, removing the top down perception and replacing it with a shared responsibility and understanding.

2.3 POTENTIAL STRUCTURE OF THE NPF

This section provides an initial outline of the content with may be included in the first statutory NPF. This list is neither exhaustive nor definitive but outlines the possible structure of the NPF (the order in which the sections are described here may not reflect their position/order within the plan). The emerging policy areas to be considered as part of the NPF include the following broad headings:

[4] DECLG (December 2015) Towards a National Planning Framework: A Roadmap for the delivery of the National Planning Framework 2016. Retrieved: http://www.housing.gov.ie/sites/default/files/publications/files/towards_a_national_planning_framework_december_2015.pdf

Chapter 1: Ireland 2040: Our Plan

Introduction to the National Planning Framework title 'Ireland 2040', setting the scene and providing background to the need for the NPF as well as a summary of key messages from the other chapters.

Chapter 2: A New Way Forward

This chapter sets out the issues and challenges to setting a new way forward in terms of coordinated planning and looks at how to target growth levels across the various regions and build accessible centres of scale.

Chapter 3: Making Stronger Urban Places

Provides details on the importance of urban centres and how to make cities, towns and villages attractive places to live, work and visit through planning for urban growth.

Chapter 4: Planning for Diverse Rural Places

Provides details on the approach to conserving and enhancing rural areas while planning for future growth and development of rural areas.

Chapter 5: People, Homes and Communities

Focuses on housing, local planning and leisure policies with a particular focus on the requirements of an ageing population.

Chapter 6: Realising our Island and Marine Potential

Provides details on the growing maritime economy and the planning processes needed to effectively drive development and management.

Chapter 7: Working with our Neighbours

Focuses on cooperation with Northern Ireland to grow key economic corridors, coordination of infrastructure investment and responsible management of the shared environment.

Chapter 8: Realising our Sustainable Future

This chapter focuses on the transition to a low-carbon, climate-resilient and environmentally sustainable economy by 2050.

Chapter 9: Equipping Ireland for Future

This chapter highlights the national priorities to support Ireland's strategic development.

Chapter 10: Implementing and Monitoring Ireland 2040

Sets out the areas for which measures will be developed for establishing a legislatively-based, capital investment strategy-backed, political and institutional governance structure aligned approach to implementing Ireland 2040.

3 ASSESSMENT METHODOLOGY

3.1 GUIDANCE DOCUMENTS ON APPROPRIATE ASSESSMENT

The AA requirements of Article 6 of the Habitats Directive 92/43/EEC (European Communities, 2001) follow a sequential approach as outlined in the following legislation and guidance documents/ Departmental Circulars, namely:

European and National Legislation

- Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (also known as the 'Habitats Directive');
- Council Directive 2009/147/EC on the conservation of wild birds, codified version (also known as the 'Birds Directive');
- European Communities (Birds and Natural Habitats) Regulations 2011 as amended; and
- Planning and Development Act 2000 as amended.

Guidance

- *Appropriate Assessment of Plans and Projects in Ireland: Guidance for Local Authorities* (revision 10/02/10) (DEHLG, 2009);
- *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 (2001);
- *Communication from the Commission on the Precautionary Principle* (European Commission, 2000b);
- *EC study on evaluating and improving permitting procedures related to Natura 2000 requirements under Article 6.3 of the Habitats Directive 92/43/EEC* (European Commission, 2013);
- *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* (European Commission, 2007);
- *Managing Natura 2000 sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC*[5] (European Commission, 2000a); and
- *Marine Natura Impacts Statements in Irish Special Areas of Conservation*. A working Document (DAHG, 2012).

Departmental/NPWS Circulars

- *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities*. Circular NPWS 1/10 and PSSP 2/10.
- *Appropriate Assessment of Land Use Plans*. Circular Letter SEA 1/08 & NPWS 1/08.
- *Water Services Investment and Rural Water Programmes – Protection of Natural Heritage and National Monuments*. Circular L8/08.

[5] The Commission has notified its intent to revise this guidance and a draft revised document was published in April 2015. It would appear that this has not been finalised to date, with no revised guidance document available on the Commissions website.

- *Guidance on Compliance with Regulation 23 of the Habitats Directive*. Circular Letter NPWS 2/07.
- *Compliance Conditions in respect of Developments requiring (1) Environmental Impact Assessment (EIA); or (2) having potential impacts on Natura 2000 sites*. Circular Letter PD 2/07 and NPWS 1/07.

3.2 GUIDING PRINCIPLES AND CASE LAW

Over time legal interpretation has been sought on the practical application of the legislation concerning AA as some terminology has been found to be unclear. European and National case law has clarified a number of issues and some aspects of the published guidance documents have been superseded by case law. Case law has been considered in the preparation of the screening of the NPF.

3.3 STAGES OF APPROPRIATE ASSESSMENT

The AA process progresses through four stages. If at any stage in the process it is determined that there will be no adverse effect on the integrity of a European Site in view of the sites' Conservation Objectives, the process is effectively completed. The four stages are as follows:

- Stage 1 – Screening of the proposed plan or project for AA;
- Stage 2 – An AA of the proposed plan or project;
- Stage 3 – Assessment of alternative solutions; and
- Stage 4 – Imperative Reasons of Overriding Public Interest (IROPI)/ Derogation.

Stage 1: Screening for AA

The aim of screening is to assess firstly if the plan or project is directly connected with or necessary to the management of European Site(s); or in view of best scientific knowledge, if the plan or project, individually or in combination with other plans or projects, is likely to have a significant effect on a European site. This is done by examining the proposed plan or project and the Conservation Objectives of any European Sites that might potentially be affected. If screening determines that there is a likelihood of significant effects or there is uncertainty regarding the significance of effects then it will be recommended that the plan is brought forward to the next stage of the AA process.

Stage 2: Appropriate Assessment

The aim of Stage 2 of the AA process is to identify any adverse impacts that the plan or project might have on the integrity of relevant European Sites. As part of the assessment, a key consideration is 'in combination' effects with other plans or projects. Where adverse impacts are identified, mitigation measures can be proposed that would avoid, reduce or remedy any such negative impacts and the plan or project should then be amended accordingly, thereby avoiding the need to progress to Stage 3.

Stage 3: Alternative Solutions

If it is not possible during Stage 2 of the AA process to conclude that there will be no adverse effects on site integrity, Stage 3 of the process must be undertaken which is to objectively assess whether alternative solutions exist by which the objectives of the plan or project can be achieved. Explicitly, this means alternative solutions that do not have adverse impacts on the integrity of a European Site. It should also be noted that EU guidance on this stage of the process states that, 'other assessment criteria, such as economic criteria, cannot be seen as overruling ecological criteria' (EC, 2002). In other words, if alternative solutions exist that do not have adverse impacts on European Sites, they should be adopted regardless of economic considerations. This stage of the AA process should result in the identification of the least damaging options for the plan or project.

Stage 4: Imperative Reasons of Overriding Public Interest (IROPI)

This stage of the AA process is undertaken when it has been determined that a plan or project will have adverse effects on the integrity of a European Site, but that no alternatives exist. At this stage of the AA process, it is the characteristics of the plan or project itself that will determine whether or not the competent authority can allow it to progress. This is the determination of 'over-riding public interest'. It is important to note that in the case of European Sites that include in their qualifying features 'priority' habitats or species (Special Areas of Conservation), as defined in Annex I and II of the Habitats Directive, the demonstration of 'over-riding public interest' is not sufficient and it must be demonstrated that the plan or project is necessary for 'human health or public safety considerations'. Where plans or projects meet these criteria, they can be allowed, provided adequate compensatory measures are proposed. Stage 4 of the process defines and describes these compensation measures.

3.4 INFORMATION SOURCES CONSULTED

The following sources of information have been consulted:

- Department of Housing, Planning, Community and Local Government online land use mapping – www.myplan.ie/en/index.html;
- GeoHive online mapping – http://map.geohive.ie/mapviewer.html;
- Ordnance Survey of Ireland online mapping and aerial photography – www.osi.ie;
- National Parks and Wildlife Service online European Site information – www.npws.ie;
- Northern Ireland Environment Agency online European Site information – https://www.doeni.gov.uk/;
- National Parks and Wildlife Service – Article 17 Status of EU protected habitats in Ireland reporting (NPWS 2013a & 2013b);
- Ireland's Article 12 submission to the EU Commission on the Status and Trends of Bird Species (2008-2012);
- Environmental Protection Agency ENVision maps and water data – www.epa.ie;
- Geological Survey of Ireland geology, soils and hydrogeology – www.gsi.ie;
- *Format for a Prioritised Action Framework (PAF) for Natura 2000* (DAHG, 2014) www.npws.ie/sites/default/files/general/PAF-IE-2014.pdf; and
- *Actions for Biodiversity 2011-2016*: *Irelands National Biodiversity Plan* (DAHG, 2011).[6]

[6] Ireland's third National Biodiversity Action Plan 2017 – 2021 is currently undergoing consultation. The draft plan can be found at https://www.npws.ie/sites/default/files/files/Draft%20NBAP%202017-2021(1).pdf (as at 23/01/2017).

4 SCREENING FOR APPROPRIATE ASSESSMENT

In line with best practice guidance the AA Screening involves the following:

1. Description of the plan;
2. Identification of relevant European Sites;
3. Assessment of likely significant effects;
4. Screening statement/determination with conclusions.

4.1 DESCRIPTION OF THE PLAN

An overview of the NPF, including background and context are provided in **Chapter 2** of this document.

4.2 IDENTIFICATION OF EUROPEAN SITES

European Sites comprise (a) Special Areas of Conservation (SACs) that are designated under the Habitats Directive as requiring the conservation of important, rare or threatened habitats and species (other than birds) and (b) Special Protection Areas (SPAs), which are designated under the Birds Directive to conserve certain migratory or rare birds and their habitats. Collectively these sites form the Natura 2000 Network. In accordance with DEHLG Guidance (2009), the AA also takes into account transboundary impacts where it is identified that the implementation of the plan has the potential to impact on European Sites e.g. in Northern Ireland.

Current guidance on the zone of influence (ZoI) to be considered during the AA process states the following:

> *"A distance of 15km is currently recommended in the case of plans, and derives from UK guidance (Scott Wilson* et al., *2006). For projects, the distance could be much less than 15km, and in some cases less than 100m, but this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects."*

The objectives of the NPF will be to establish a broad national plan for the Government in relation to the strategic planning of urban and rural areas, to secure regional development, and to secure the co-ordination of regional spatial and economic strategies and city and county development plans. Measures could be implemented anywhere within the Republic of Ireland and will involve collaboration and coordination with Northern Ireland in terms of spatial planning issues, environmental management and provision of infrastructure.

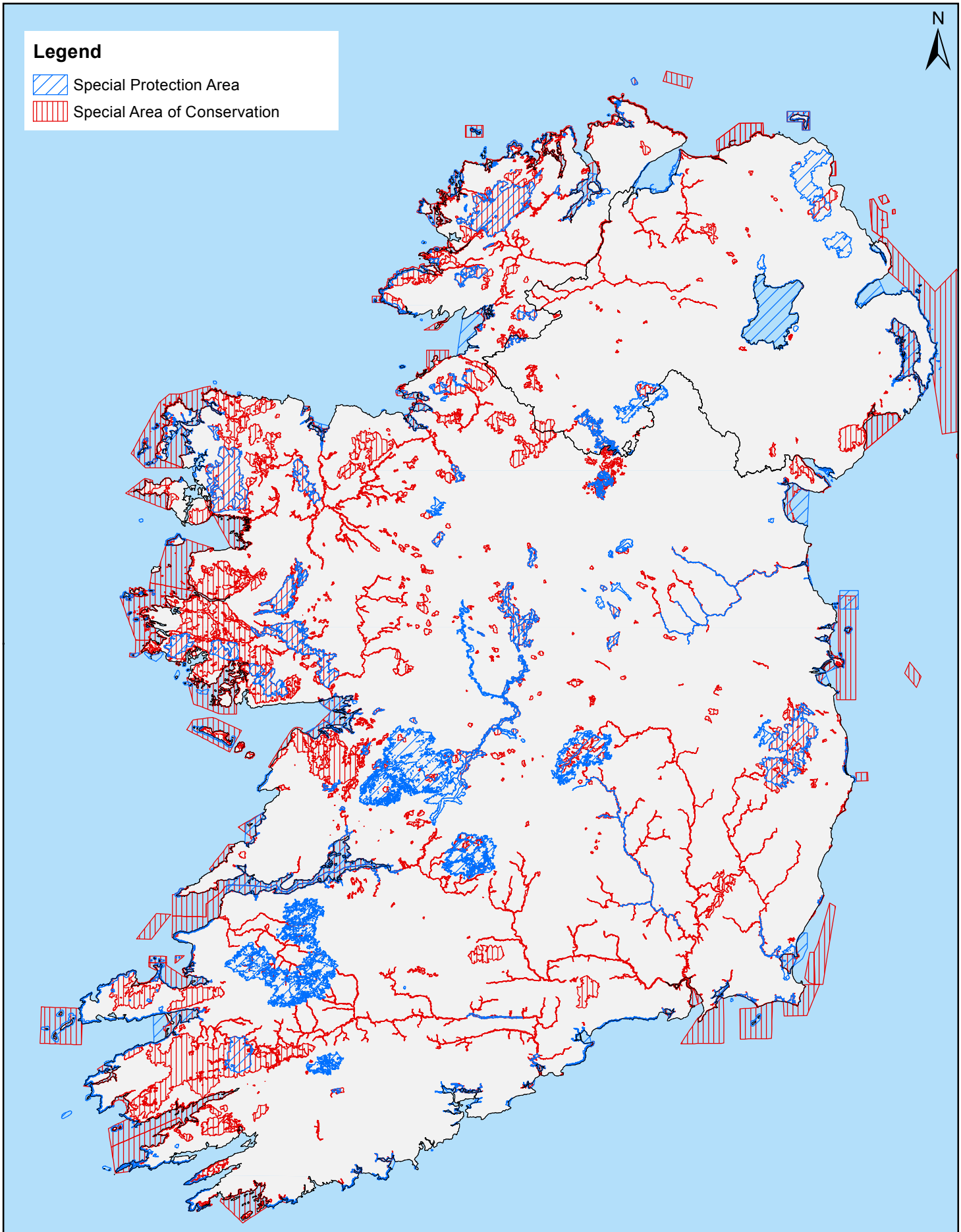
Therefore, in the first instance, the ZoI is considered to include all European Sites within the Republic of Ireland (including off-shore islands) and considers potential transboundary impacts to all SACs and SPAs in Northern Ireland (see **Figure 4.1** and **Table 4.1**). An inventory of all European Sites including all transboundary sites are listed in **Appendices A – D**.

Table 4.1 – Number of European Sites in Ireland and Northern Ireland

Republic of Ireland*	Northern Ireland**
433 SACs (+ 6 offshore SACs)	59 SACs
165 SPAs	18 SPAs

** NPWS data revision as of June 2017.*

*** NIEA/JNCC data revision as of March 2017 (includes newly proposed/ candidate sites).*



Data source: National Parks and Wildlife Service (npws.ie, June 2017); Northern Ireland Environment Agency (daera-ni.gov.uk, March 2017),

Title

Figure 4.1 - European Sites

Project

National Planning Framework

Client

Department of Housing, Planning, Community and Local Government

RPS

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Issue Details

Drawn By:	NO'N	Project No.	MDR1273
Checked By:	AC	File Ref:	
Approved By:	AG		MDR1273Arc0001F01
Scale:	1:1,950,000 @ A4	Projection:	
Date:	28/07/2017		ITM (IRENET95)

4.3 ASSESSMENT OF LIKELY EFFECTS

The main objectives of the NPF are to:

- "Identify national priorities with regard to future employment growth and development;
- Distinguish between the role of the larger cities in acting as our major international players and our regional towns in extending the influence of the cities; and
- Establish a clear policy framework within which there will be more dynamic participation by rural areas in overall regional development by re-emphasising the contribution from rural based enterprise in food, tourism, natural resource and innovation sectors.[7]"

The spatial dimension of the NPF has direct and indirect relevance for biodiversity, flora and fauna in European Sites in Ireland. On the one hand, it presents a threat to the wellbeing and survival of our native flora and fauna through habitat loss and disturbance. It also offers the opportunity to integrate nature into decision-making and allow the benefits of biodiversity to be appreciated and where appropriate harnessed.

In the absence of detail with regards to finalised controls or mitigation measures at this early stage as well as the unknowns in relation to the potential effects on water, air and sensitive habitats, it is considered that there is a likelihood of significant effects occurring on one or more European Sites.

4.3.1 Conservation Objectives

The overall aim of the Habitats Directive is to *maintain or restore the favourable conservation status* of habitats and species of community interest (the qualifying interest habitats and species for which a site has been designated).

Site specific Conservation Objectives aim to define favourable conservation condition for these habitats or species at the site level. Maintenance of favourable conservation condition of habitats and species at a site level in turn contributes to maintaining or restoring favourable conservation status of habitats and species at a national level and ultimately at the Natura 2000 Network level.

Given the number of European Sites that could potentially be impacted by the implementation of the NPF (**Table 4.1** and **Appendix A – D**) it is not practical to list the Conservation Objectives of each site in the screening report. Rather the generic Conservation Objectives which have been developed by NPWS (as part of the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs), and encompass the spirit of site specific Conservation Objectives in the context of *maintain and restore* are presented:

For SACs:

- 'To maintain or restore the favourable conservation condition of the Annex I habitats and/or Annex II species for which the SAC has been selected'.

[7] DECLG (2015) Towards a National Planning Framework: A Roadmap for the delivery of the National Planning Framework 2016. Retrieved: http://www.housing.gov.ie/sites/default/files/publications/files/towards_a_national_planning_framework_december_2015.pdf

For SPAs:

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

Favourable Conservation status of a habitat is achieved when:

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

Favourable Conservation status of a species is achieved when:

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

In undertaking this screening of the NPF, consideration has been given to the potential to impact on the achievement of Conservation Objectives at this more general level in the first instance.

4.3.2 In-combination Effects

It is a requirement of Article 6(3) of the Habitats Directive that the in-combination effects with other plans or projects are considered. Consideration has been given, at this stage of the NPF, to other relevant plans on a similarly strategic level that have clear potential to have a cumulative impact upon European Sites.

Given the level of detail currently available for the NPF and that potential likely significant effects cannot currently be ruled out as a result of implementation of the plan, it is considered that the NPF has the potential to result in in-combination effects with other plans. Some of the plans considered are listed in **Table 4.2**.

Table 4.2 – National Plans, Programmes and Policies Relevant to the NPF

Level	Key Relevant Plans and Programmes
EU and International	The Seventh Environmental Action Programme (EAP) of the European Community (2013-2020)
	The EU Biodiversity Strategy
	Bern Convention (Convention on the Conservation of European Wildlife and Natural Habitats)
	EU Climate and Energy Package
	Kyoto Protocol (1997)
	Bali Road Map (2007)
	Cancun Agreements (2010)
	Doha Climate Gateway (2012)
	2030 EU Climate and Energy Framework

Level	Key Relevant Plans and Programmes
	Paris Agreement (COP21)
	The Valletta Convention (1992)
	EU Common Agricultural Policy
National	National Climate Mitigation Plan [in prep]
	National Climate Change Adaptation Framework (2012)
	Bioenergy Plan [in prep]
	Renewable Electricity Plan [in prep]
	Water Services Strategic Plan (2015)
	National Water Resources Plan [in prep]
	Lead in Drinking Water Mitigation Plan [draft]
	National Wastewater Sludge Management Plan (2016)
	Seafood Operation Programme (2014)
	Aquaculture Plan (2014)
	The National Biodiversity Plan (2011)
	National Peatlands Strategy (2011)
	Regional Waste Management Plans (2015)
	Construction 2020
	NPWS Conservation Plans and/or Conservation Objectives for SACs and SPAs
	National Heritage Plan (2002)
	National Spatial Strategy 2002-2020 (2002)
	National Development Plan from 2007 to 2013
	Sustainable Development: A Strategy for Ireland (1997) (DEHLG)
	National Landscape Strategy for Ireland 2015 – 2025
	Sustainable Rural Housing Guidelines
	Wind Energy Guidelines
	Rural Development Programme (RDP) 2014-2020
	Forestry Programme 2014-2020
	Foodwise 2025
	Green Low-Carbon Agri-Environment Scheme (GLAS)
	Organic Farming Scheme
	Teagasc Better Farm Program
	Delivering a Sustainable Energy Future for Ireland (Energy White Paper) 2007 and 2015 [Update]
	National Renewable Energy Action Plan (NREAP) (2010)
	Strategy for Renewable Energy 2012-2020
	Offshore Renewable Energy Development Plan (2014)
	All Island Grid Study (2008)
	EU White Paper on Transport (2011)
	EU Action Plan on Urban Mobility (2009)
	Smarter Travel 'A New Transport Policy for Ireland' 2009-2020
	National Cycle Policy Framework 2009-2020
	National ITS Strategy (Draft)
	Investing in our transport future – A Strategic Framework for Investment in Land Transport (2015)
	National Ports Policy (2013)
	National Aviation Policy (2015)
	Greater Dublin Area (GDA) Draft Transport Strategy 2011-2030, 2030 Vision
	National Policy Framework for the Development of Alternative Fuels Infrastructure (In draft)
	Sectoral Plan for Accessible Transport (2013)
	Electric Vehicles Grant Scheme and VRT Relief
	Social Housing Strategy
	Government Policy on Architecture 2009-2015 (2009)

Level	Key Relevant Plans and Programmes
	National Landscape Plan 2015-2025
	Regional Spatial and Economic Strategies

5 CONCLUSION

Given the strategic nature of the plan, the current stage of preparation of the plan and in light of a number of uncertainties relating to the implementation of the plan going forward, it is considered that there is potential for likely significant effects on one or more European Sites, in view of the Sites' Conservation Objectives.

For that reason, and in applying the precautionary principle, the AA process in relation to the NPF must proceed to Appropriate Assessment and the preparation of a Natura Impact Statement (NIS) to fully inform the Appropriate Assessment to be undertaken by the DHPCLG.

6 REFERENCES

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NPWS (2010). *Circular NPW 1/10 & PSSP 2/10 Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities.* (Department of Environment, Heritage and Local Government, 2010).

APPENDIX A

Special Areas of Conservation, Republic of Ireland

SAC	Site Code	SAC	Site Code
Killyconny Bog (Cloghbally) SAC	000006	Great Island Channel SAC	001058
Lough Oughter & Associated Loughs SAC	000007	Kilkieran Lake & Castlefreke Dunes SAC	001061
Ballyallia Lake SAC	000014	Myross Wood SAC	001070
Ballycullinan Lake SAC	000016	Ballyness Bay SAC	001090
Ballyogan Lough SAC	000019	Coolvoy Bog SAC	001107
Black Head-Poulsallagh Complex SAC	000020	Dunragh Loughs/Pettigo Plateau SAC	001125
Danes Hole, Poulnalecka SAC	000030	Gweedore Bay & Islands SAC	001141
Dromore Woods & Loughs SAC	000032	Kindrum Lough SAC	001151
Inagh River Estuary SAC	000036	Muckish Mountain SAC	001179
Pouladatig Cave SAC	000037	Sheephaven SAC	001190
Lough Gash Turlough SAC	000051	Termon Strand SAC	001195
Moneen Mountain SAC	000054	Keeper Hill SAC	001197
Moyree River System SAC	000057	Glenasmole Valley SAC	001209
Poulnagordon Cave (Quin) SAC	000064	Aughrusbeg Machair &Lake SAC	001228
Ballymacoda (Clonpriest & Pillmore) SAC	000077	Courtmacsherry Estuary SAC	001230
Glengarriff Harbour & Woodland SAC	000090	Carrownagappul Bog SAC	001242
Clonakilty Bay SAC	000091	Cregduff Lough SAC	001251
Caha Mountains SAC	000093	Dog's Bay SAC	001257
Lough Hyne Nature Reserve And Environs SAC	000097	Gortnandarragh Limestone Pavement SAC	001271
Roaringwater Bay & Islands SAC	000101	Inisheer Island SAC	001275
Sheep's Head SAC	000102	Kiltiernan Turlough SAC	001285
St. Gobnet's Wood SAC	000106	Omey Island Machair SAC	001309
The Gearagh SAC	000108	Rusheenduff Lough SAC	001311
Three Castle Head To Mizen Head SAC	000109	Ross Lake & Woods SAC	001312
Aran Island (Donegal) Cliffs SAC	000111	Rosturra Wood SAC	001313
Ballintra SAC	000115	Termon Lough SAC	001321
Ballyarr Wood SAC	000116	Cloonee & Inchiquin Loughs, Uragh Wood SAC	001342
Croaghonagh Bog SAC	000129	Mucksna Wood SAC	001371
Donegal Bay (Murvagh) SAC	000133	Ballynafagh Lake SAC	001387
Durnesh Lough SAC	000138	Rye Water Valley/Carton SAC	001398
Fawnboy Bog/Lough Nacung SAC	000140	Arroo Mountain SAC	001403
Gannivegil Bog SAC	000142	Glen Bog SAC	001430
Horn Head & Rinclevan SAC	000147	Glenstal Wood SAC	001432
Inishtrahull SAC	000154	Clogher Head SAC	001459
Lough Eske And Ardnamona Wood SAC	000163	Clew Bay Complex SAC	001482
Lough Nagreany Dunes SAC	000164	Doogort Machair/Lough Doo SAC	001497
Lough Nillan Bog (Carrickatlieve) SAC	000165	Erris Head SAC	001501
Magheradrumman Bog SAC	000168	Keel Machair/Menaun Cliffs SAC	001513
Meenaguse/Ardbane Bog SAC	000172	Lough Cahasy, Lough Baun & Roonah Lough SAC	001529
Meentygrannagh Bog SAC	000173	Mocorha Lough SAC	001536
Curraghchase Woods SAC	000174	Castletownshend SAC	001547
Rathlin O'Birne Island SAC	000181	Urlaur Lakes SAC	001571
Sessiagh Lough SAC	000185	Castlesampson Esker SAC	001625
Slieve League SAC	000189	Annaghmore Lough (Roscommon) SAC	001626
Slieve Tooey/Tormore Island/Loughros Beg Bay SAC	000190	Four Roads Turlough SAC	001637
St. John's Point SAC	000191	Bricklieve Mountains & Keishcorran SAC	001656

SAC	Site Code	SAC	Site Code
Tranarossan & Melmore Lough SAC	000194	Knockalongy & Knockachree Cliffs SAC	001669
West Of Ardara/Maas Road SAC	000197	Lough Arrow SAC	001673
Baldoyle Bay SAC	000199	Streedagh Point Dunes SAC	001680
Howth Head SAC	000202	Liskeenan Fen SAC	001683
Lambay Island SAC	000204	Kilmuckridge-Tinnaberna Sandhills SAC	001741
Malahide Estuary SAC	000205	Kilpatrick Sandhills SAC	001742
North Dublin Bay SAC	000206	Holdenstown Bog SAC	001757
Rogerstown Estuary SAC	000208	Magherabeg Dunes SAC	001766
South Dublin Bay SAC	000210	Lough Carra/Mask Complex SAC	001774
Inishmaan Island SAC	000212	Pilgrim's Road Esker SAC	001776
Inishmore Island SAC	000213	Kilroosky Lough Cluster SAC	001786
River Shannon Callows SAC	000216	White Lough, Ben Loughs & Lough Doo SAC	001810
Coolcam Turlough SAC	000218	Lough Forbes Complex SAC	001818
Barroughter Bog SAC	000231	Split Hills &Long Hill Esker SAC	001831
Caherglassaun Turlough SAC	000238	Philipston Marsh SAC	001847
Castletaylor Complex SAC	000242	Galmoy Fen SAC	001858
Cloonmoylan Bog SAC	000248	Derryclogher (Knockboy) Bog SAC	001873
Coole-Garryland Complex SAC	000252	Glanmore Bog SAC	001879
Croaghill Turlough SAC	000255	Meenaguse Scragh SAC	001880
Derrycrag Wood Nature Reserve SAC	000261	Maulagowna Bog SAC	001881
Galway Bay Complex SAC	000268	Mullaghanish Bog SAC	001890
Inishbofin & Inishshark SAC	000278	Unshin River SAC	001898
Kilsallagh Bog SAC	000285	Cloonakillina Lough SAC	001899
Kiltartan Cave (Coole) SAC	000286	Glendree Bog SAC	001912
Levally Lough SAC	000295	Sonnagh Bog SAC	001913
Lisnageeragh Bog & Ballinastack Turlough SAC	000296	Glenade Lough SAC	001919
Lough Corrib SAC	000297	Bellacorick Bog Complex SAC	001922
Lough Cutra SAC	000299	East Burren Complex SAC	001926
Lough Lurgeen Bog/Glenamaddy Turlough SAC	000301	Mweelrea/Sheeffry/Erriff Complex SAC	001932
Lough Rea SAC	000304	Comeragh Mountains SAC	001952
Loughatorick South Bog SAC	000308	Croaghaun/Slievemore SAC	001955
Peterswell Turlough SAC	000318	Boyne Coast & Estuary SAC	001957
Pollnaknockaun Wood Nature Reserve SAC	000319	Ballyhoorisky Point To Fanad Head SAC	001975
Rahasane Turlough SAC	000322	Lough Gill SAC	001976
Rosroe Bog SAC	000324	Tamur Bog SAC	001992
Shankill West Bog SAC	000326	Bellacragher Saltmarsh SAC	002005
Slyne Head Islands SAC	000328	Ox Mountains Bogs SAC	002006
Tully Mountain SAC	000330	Maumturk Mountains SAC	002008
Akeragh, Banna & Barrow Harbour SAC	000332	Old Domestic Building (Keevagh) SAC	002010
Ballinskelligs Bay & Inny Estuary SAC	000335	North Inishowen Coast SAC	002012
Castlemaine Harbour SAC	000343	The Twelve Bens/Garraun Complex SAC	002031
Old Domestic Building, Dromore Wood SAC	000353	Boleybrack Mountain SAC	002032
Kilgarvan Ice House SAC	000364	Connemara Bog Complex SAC	002034
Killarney National Park, Macgillycuddy's Reeks & Caragh River Catchment SAC	000365	Ballyhoura Mountains SAC	002036
Lough Yganavan & Lough Nambrackdarrig SAC	000370	Carrigeenamronety Hill SAC	002037

SAC	Site Code	SAC	Site Code
Mount Brandon SAC	000375	Old Domestic Building, Curraglass Wood SAC	002041
Sheheree (Ardagh) Bog SAC	000382	Cloghernagore Bog & Glenveagh National Park SAC	002047
Ballynafagh Bog SAC	000391	Tralee Bay & Magharees Peninsula, West To Cloghane SAC	002070
Pollardstown Fen SAC	000396	Slyne Head Peninsula SAC	002074
Red Bog, Kildare SAC	000397	Ballinafad SAC	002081
Hugginstown Fen SAC	000404	Newhall & Edenvale Complex SAC	002091
The Loughans SAC	000407	Old Domestic Building, Askive Wood SAC	002098
Slieve Bloom Mountains SAC	000412	Corliskea/Trien/Cloonfelliv Bog SAC	002110
Lough Melvin SAC	000428	Kilkieran Bay & Islands SAC	002111
Barrigone SAC	000432	Ballyseedy Wood SAC	002112
Tory Hill SAC	000439	Lough Coy SAC	002117
Lough Ree SAC	000440	Barnahallia Lough SAC	002118
Fortwilliam Turlough SAC	000448	Lough Nageeron SAC	002119
Carlingford Mountain SAC	000453	Lough Bane & Lough Glass SAC	002120
Dundalk Bay SAC	000455	Lough Lene SAC	002121
Killala Bay/Moy Estuary SAC	000458	Wicklow Mountains SAC	002122
Ardkill Turlough SAC	000461	Ardmore Head SAC	002123
Balla Turlough SAC	000463	Bolingbrook Hill SAC	002124
Bellacorick Iron Flush SAC	000466	Anglesey Road SAC	002125
Mullet/Blacksod Bay Complex SAC	000470	Pollagoona Bog SAC	002126
Brackloon Woods SAC	000471	Murvey Machair SAC	002129
Broadhaven Bay SAC	000472	Tully Lough SAC	002130
Ballymaglancy Cave, Cong SAC	000474	Lough Nageage SAC	002135
Carrowkeel Turlough SAC	000475	Lower River Suir SAC	002137
Carrowmore Lake Complex SAC	000476	Mountmellick SAC	002141
Cloughmoyne SAC	000479	Newport River SAC	002144
Clyard Kettle-Holes SAC	000480	Lisduff Fen SAC	002147
Cross Lough (Killadoon) SAC	000484	Newgrove House SAC	002157
Corraun Plateau SAC	000485	Kenmare River SAC	002158
Doocastle Turlough SAC	000492	Mulroy Bay SAC	002159
Duvillaun Islands SAC	000495	Long Bank SAC	002161
Flughany Bog SAC	000497	River Barrow & River Nore SAC	002162
Glenamoy Bog Complex SAC	000500	Lough Golagh & Breesy Hill SAC	002164
Greaghans Turlough SAC	000503	Lower River Shannon SAC	002165
Kilglassan/Caheravoostia Turlough Complex SAC	000504	Blackwater River (Cork/Waterford) SAC	002170
Inishkea Islands SAC	000507	Bandon River SAC	002171
Lackan Saltmarsh & Kilcummin Head SAC	000516	Blasket Islands SAC	002172
Lough Gall Bog SAC	000522	Blackwater River (Kerry) SAC	002173
Shrule Turlough SAC	000525	Leannan River SAC	002176
Moore Hall (Lough Carra) SAC	000527	Lough Dahybaun SAC	002177
Oldhead Wood SAC	000532	Towerhill House SAC	002179
Owenduff/Nephin Complex SAC	000534	Gortacarnaun Wood SAC	002180
Skealoghan Turlough SAC	000541	Drummin Wood SAC	002181
Slieve Fyagh Bog SAC	000542	Slieve Mish Mountains SAC	002185
All Saints Bog & Esker SAC	000566	Drongawn Lough SAC	002187
Charleville Wood SAC	000571	Farranamanagh Lough SAC	002189
Clara Bog SAC	000572	Ireland's Eye SAC	002193

SAC	Site Code	SAC	Site Code
Ferbane Bog SAC	000575	Glenloughaun Esker SAC	002213
Fin Lough (Offaly) SAC	000576	Killeglan Grassland SAC	002214
Mongan Bog SAC	000580	Island Fen SAC	002236
Moyclare Bog SAC	000581	Lough Derg, North-East Shore SAC	002241
Raheenmore Bog SAC	000582	Clare Island Cliffs SAC	002243
Cuilcagh - Anierin Uplands SAC	000584	Ardrahan Grassland SAC	002244
Sharavogue Bog SAC	000585	Old Farm Buildings, Ballymacrogan SAC	002245
Ballinturly Turlough SAC	000588	Ballycullinan, Old Domestic Building SAC	002246
Bellanagare Bog SAC	000592	Toonagh Estate SAC	002247
Callow Bog SAC	000595	The Murrough Wetlands SAC	002249
Carrowbehy/Caher Bog SAC	000597	Carrowmore Dunes SAC	002250
Cloonchambers Bog SAC	000600	Thomastown Quarry SAC	002252
Derrinea Bog SAC	000604	Ballyprior Grassland SAC	002256
Lough Fingall Complex SAC	000606	Moanour Mountain SAC	002257
Errit Lough SAC	000607	Silvermines Mountains West SAC	002258
Lisduff Turlough SAC	000609	Tory Island Coast SAC	002259
Lough Croan Turlough SAC	000610	Magharee Islands SAC	002261
Lough Funshinagh SAC	000611	Valencia Harbour/Portmagee Channel SAC	002262
Mullygollan Turlough SAC	000612	Kerry Head Shoal SAC	002263
Cloonshanville Bog SAC	000614	Kilkee Reefs SAC	002264
Ballysadare Bay SAC	000622	Kingstown Bay SAC	002265
Ben Bulben, Gleniff & Glenade Complex SAC	000623	Achill Head SAC	002268
Bunduff Lough &Machair/Trawalua/Mullaghmore SAC	000625	Carnsore Point SAC	002269
Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC	000627	Wicklow Reef SAC	002274
Lough Hoe Bog SAC	000633	Askeaton Fen Complex SAC	002279
Lough Nabrickkeagh Bog SAC	000634	Dunbeacon Shingle SAC	002280
Templehouse And Cloonacleigha Loughs SAC	000636	Reen Point Shingle SAC	002281
Turloughmore (Sligo) SAC	000637	Rutland Island & Sound SAC	002283
Union Wood SAC	000638	Lough Swilly SAC	002287
Ballyduff/Clonfinane Bog SAC	000641	Carrowbaun, Newhall And Ballylee Turloughs SAC	002293
Galtee Mountains SAC	000646	Cahermore Turlough SAC	002294
Kilcarren-Firville Bog SAC	000647	Ballinduff Turlough SAC	002295
Helvick Head SAC	000665	Williamstown Turloughs SAC	002296
Nier Valley Woodlands SAC	000668	River Moy SAC	002298
Tramore Dunes & Backstrand SAC	000671	River Boyne & River Blackwater SAC	002299
Garriskil Bog SAC	000679	River Finn SAC	002301
Lough Ennell SAC	000685	Dunmuckrum Turloughs SAC	002303
Lough Owel SAC	000688	Carlingford Shore SAC	002306
Scragh Bog SAC	000692	Slieve Bernagh Bog SAC	002312
Ballyteige Burrow SAC	000696	Ballymore Fen SAC	002313
Bannow Bay SAC	000697	Old Domestic Buildings, Rylane SAC	002314
Cahore Polders & Dunes SAC	000700	Glanlough Woods SAC	002315
Lady's Island Lake SAC	000704	Ratty River Cave SAC	002316
Saltee Islands SAC	000707	Cregg House Stables, Crusheen SAC	002317
Screen Hills SAC	000708	Knockanira House SAC	002318
Tacumshin Lake SAC	000709	Kilkishen House SAC	002319

SAC	Site Code	SAC	Site Code
Raven Point Nature Reserve SAC	000710	Kildun Souterrain SAC	002320
Ballyman Glen SAC	000713	Glendine Wood SAC	002324
Bray Head SAC	000714	Mouds Bog SAC	002331
Carriggower Bog SAC	000716	Coolrain Bog SAC	002332
Deputy's Pass Nature Reserve SAC	000717	Knockacoller Bog SAC	002333
Glen Of The Downs SAC	000719	Carn Park Bog SAC	002336
Knocksink Wood SAC	000725	Crosswood Bog SAC	002337
Buckroney-Brittas Dunes & Fen SAC	000729	Drumalough Bog SAC	002338
Vale Of Clara (Rathdrum Wood) SAC	000733	Ballynamona Bog & Corkip Lough SAC	002339
Hook Head SAC	000764	Moneybeg & Clareisland Bogs SAC	002340
Blackstairs Mountains SAC	000770	Ardagullion Bog SAC	002341
Slaney River Valley SAC	000781	Mount Hevey Bog SAC	002342
Cullahill Mountain SAC	000831	Tullaher Lough & Bog SAC	002343
Spahill & Clomantagh Hill SAC	000849	Brown Bog SAC	002346
Clonaslee Eskers & Derry Bog SAC	000859	Camderry Bog SAC	002347
Lisbigney Bog SAC	000869	Clooneen Bog SAC	002348
Ridge Road, SW Of Rapemills SAC	000919	Corbo Bog SAC	002349
The Long Derries, Edenderry SAC	000925	Curraghlehanagh Bog SAC	002350
Clare Glen SAC	000930	Moanveanlagh Bog SAC	002351
Kilduff, Devilsbit Mountain SAC	000934	Monivea Bog SAC	002352
Silvermine Mountains SAC	000939	Redwood Bog SAC	002353
Corratirrim SAC	000979	Tullaghanrock Bog SAC	002354
Ballyteige (Clare) SAC	000994	Ardgraigue Bog SAC	002356
Ballyvaughan Turlough SAC	000996	Blackwater Bank SAC	002953
Glenomra Wood SAC	001013	West Connacht Coast SAC	002998
Carrowmore Point To Spanish Point & Islands SAC	001021	Hemptons Turbot Bank SAC	002999
Barley Cove To Ballyrisode Point SAC	001040	Rockabill to Dalkey Island SAC	003000
Cleanderry Wood SAC	001043	Codling Fault Zone SAC	003015
Derrinlough (Cloonkeenleananode) Bog SAC	002197	Girley (Drewstown) Bog SAC	002203
Ballygar (Aghrane) Bog SAC	002199	Wooddown Bog SAC	002205
Aughrim (Aghrane) Bog SAC	002200	Scohaboy (Sopwell) Bog SAC	002206
Derragh Bog SAC	002201	Arragh More (Derrybreen) Bog SAC	002207
Mount Jessop Bog SAC	002202	-	-

APPENDIX B

Special Protection Areas, Republic of Ireland

Special Protection Area (SPA)	Site Code	Special Protection Area (SPA)	Site Code
Saltee Islands SPA	004002	Pettigo Plateau Nature Reserve SPA	004099
Puffin Island SPA	004003	Inishtrahull SPA	004100
Inishkea Islands SPA	004004	Ballykenny-Fisherstown Bog SPA	004101
Cliffs of Moher SPA	004005	Garriskil Bog SPA	004102
North Bull Island SPA	004006	All Saints Bog SPA	004103
Skelligs SPA	004007	Bellanagare Bog SPA	004105
Blasket Islands SPA	004008	Coole-Garryland SPA	004107
Lady's Island Lake SPA	004009	Eirk Bog SPA	004108
Drumcliff Bay SPA	004013	The Gearagh SPA	004109
Rockabill SPA	004014	Lough Nillan Bog SPA	004110
Rogerstown Estuary SPA	004015	Duvillaun Islands SPA	004111
Baldoyle Bay SPA	004016	Howth Head Coast SPA	004113
Mongan Bog SPA	004017	Illaunonearaun SPA	004114
The Raven SPA	004019	Inishduff SPA	004115
Ballyteigue Burrow SPA	004020	Inishkeel SPA	004116
Old Head of Kinsale SPA	004021	Ireland's Eye SPA	004117
Ballycotton Bay SPA	004022	Keeragh Islands SPA	004118
Ballymacoda Bay SPA	004023	Loop Head SPA	004119
South Dublin Bay and River Tolka Estuary SPA	004024	Rathlin O'Birne Island SPA	004120
Broadmeadow/Swords Estuary SPA	004025	Roaninish SPA	004121
Dundalk Bay SPA	004026	Skerries Islands SPA	004122
Tramore Back Strand SPA	004027	Sovereign Islands SPA	004124
Blackwater Estuary SPA	004028	Magharee Islands SPA	004125
Castlemaine Harbour SPA	004029	Wicklow Head SPA	004127
Cork Harbour SPA	004030	Ballysadare Bay SPA	004129
Inner Galway Bay SPA	004031	Illancrone and Inishkeeragh SPA	004132
Dungarvan Harbour SPA	004032	Aughris Head SPA	004133
Bannow Bay SPA	004033	Lough Rea SPA	004134
Trawbreaga Bay SPA	004034	Ardboline Island and Horse Island SPA	004135
Cummeen Strand SPA	004035	Clare Island SPA	004136
Killala Bay/Moy Estuary SPA	004036	Dovegrove Callows SPA	004137
Blacksod Bay/Broadhaven SPA	004037	Lough Croan Turlough SPA	004139
Killarney National Park SPA	004038	Four Roads Turlough SPA	004140
Derryveagh And Glendowan Mountains SPA	004039	Cregganna Marsh SPA	004142
Wicklow Mountains SPA	004040	Cahore Marshes SPA	004143
Ballyallia Lough SPA	004041	High Island, Inishshark and Davillaun SPA	004144
Lough Corrib SPA	004042	Durnesh Lough SPA	004145
Lough Derravaragh SPA	004043	Malin Head SPA	004146
Lough Ennell SPA	004044	Fanad Head SPA	004148
Glen Lough SPA	004045	Falcarragh to Meenlaragh SPA	004149
Lough Iron SPA	004046	West Donegal Coast SPA	004150
Lough Owel SPA	004047	Donegal Bay SPA	004151
Lough Gara SPA	004048	Inishmore SPA	004152
Lough Oughter SPA	004049	Dingle Peninsula SPA	004153
Lough Arrow SPA	004050	Iveragh Peninsula SPA	004154
Lough Carra SPA	004051	Beara Peninsula SPA	004155
Carrowmore Lake SPA	004052	Sheep's Head to Toe Head SPA	004156
Lough Cutra SPA	004056	River Nanny Estuary and Shore SPA	004158

Special Protection Area (SPA)	Site Code	Special Protection Area (SPA)	Site Code
Lough Derg (Donegal) SPA	004057	Slyne Head To Ardmore Point Islands SPA	004159
Lough Derg (Shannon) SPA	004058	Slieve Bloom Mountains SPA	004160
Lough Fern SPA	004060	Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA	004161
Lough Kinale and Derragh Lough SPA	004061	Mullaghanish to Musheramore Mountains SPA	004162
Lough Mask SPA	004062	Slievefelim to Silvermines Mountains SPA	004165
Poulaphouca Reservoir SPA	004063	Slieve Beagh SPA	004167
Lough Ree SPA	004064	Slieve Aughty Mountains SPA	004168
Lough Sheelin SPA	004065	Cruagh Island SPA	004170
The Bull and The Cow Rocks SPA	004066	Dalkey Islands SPA	004172
Inishmurray SPA	004068	Deenish Island and Scariff Island SPA	004175
Lambay Island SPA	004069	Bills Rocks SPA	004177
Stags of Broad Haven SPA	004072	Connemara Bog Complex SPA	004181
Tory Island SPA	004073	Mid-Clare Coast SPA	004182
Illanmaster SPA	004074	The Murrough SPA	004186
Lough Swilly SPA	004075	Sligo/Leitrim Uplands SPA	004187
Wexford Harbour and Slobs SPA	004076	Tralee Bay Complex SPA	004188
River Shannon and River Fergus Estuaries SPA	004077	Kerry Head SPA	004189
Carlingford Lough SPA	004078	Galley Head to Duneen Point SPA	004190
Boyne Estuary SPA	004080	Seven Heads SPA	004191
Clonakilty Bay SPA	004081	Helvick Head to Ballyquin SPA	004192
Greers Isle SPA	004082	Mid-Waterford Coast SPA	004193
Inishbofin, Inishdooey and Inishbeg SPA	004083	Horn Head to Fanad Head SPA	004194
Inishglora and Inishkeeragh SPA	004084	Cross Lough (Killadoon) SPA	004212
River Little Brosna Callows SPA	004086	Courtmacsherry Bay SPA	004219
Lough Foyle SPA	004087	Corofin Wetlands SPA	004220
Rahasane Turlough SPA	004089	Illaunnanoon SPA	004221
Sheskinmore Lough SPA	004090	Mullet Peninsula SPA	004227
Stabannan-Braganstown SPA	004091	Lough Conn and Lough Cullin SPA	004228
Tacumshin Lake SPA	004092	West Donegal Islands SPA	004230
Termoncarragh Lake and Annagh Machair SPA	004093	Inishbofin, Omey Island and Turbot Island SPA	004231
Blackwater Callows SPA	004094	River Boyne and River Blackwater SPA	004232
Kilcolman Bog SPA	004095	River Nore SPA	004233
Middle Shannon Callows SPA	004096	Ballintemple and Ballygilgan SPA	004234
River Suck Callows SPA	004097	Doogort Machair SPA	004235
Owenduff/Nephin Complex SPA	004098		

APPENDIX C

Special Areas of Conservation, Northern Ireland

Special Area of Conservation (SAC)	*Site Code*	*Special Area of Conservation (SAC)*	*Site Code*
Cuilcagh Mountain *	UK0016603	Bann Estuary	UK0030084
Pettigoe Plateau *	UK0016607	Binevenagh	UK0030089
Fairy Water Bogs	UK0016611	Cladagh (Swanlinbar) River	UK0030116
Magilligan	UK0016613	Moneygal Bog	UK0030211
Upper Lough Erne	UK0016614	Moninea Bog	UK0030212
Eastern Mournes	UK0016615	Owenkillew River	UK0030233
Monawilkin	UK0016619	Rostrevor Wood	UK0030268
Derryleckagh	UK0016620	Slieve Gullion	UK0030277
Magheraveely Marl Loughs *	UK0016621	West Fermanagh Scarplands	UK0030300
Slieve Beagh	UK0016622	River Foyle and Tributaries *	UK0030320
Largalinny	UK0030045	River Roe and Tributaries	UK0030360
Lough Melvin *	UK0030047	River Faughan and Tributaries	UK0030361
Fardrum and Roosky Turloughs	UK0030068	Skerries and Causeway	UK0030383
Ballynahone Bog	UK0016599	Rea's Wood and Farr's Bay	UK0030244
Garron Plateau	UK0016606	Turmennan	UK0030291
Teal Lough	UK0016608	Upper Ballinderry River	UK0030296
Black Bog	UK0016609	Wolf Island Bog	UK0030303
Garry Bog	UK0016610	Aughnadarragh Lough	UK0030318
Murlough	UK0016612	Ballykilbeg	UK0030319
Strangford Lough	UK0016618	Cranny Bogs	UK0030321
Rathlin Island	UK0030055	Curran Bog	UK0030322
Banagher Glen	UK0030083	Dead Island Bog	UK0030323
Breen Wood	UK0030097	Deroran Bog	UK0030324
Carn – Glenshane Pass	UK0030110	Tonnagh Beg Bog	UK0030325
Hollymount	UK0030169	Tully Bog	UK0030326
Lecale Fens	UK0030180	Red Bay	UK0030365
Main Valley Bogs	UK0030199	The Maidens	UK0030384
Montiaghs Moss	UK0030214	Pisces Reef Complex	UK0030379
North Antrim Coast	UK0030224	North Channel	UK0030399
Peatlands Park	UK0030236	-	-

APPENDIX D

Special Protection Areas, Northern Ireland

Special Protection Area (SPA)	Site Code
Lough Foyle	UK9020031
Pettigoe Plateau	UK9020051
Upper Lough Erne	UK9020071
Slieve Beagh-Mullaghfad-Lisnaskea	UK9020302
Carlingford Lough	UK9020161
Belfast Lough	UK9020101
Larne Lough	UK9020042
Strangford Lough	UK9020111
Rathlin Island	UK9020011
Killough Bay	UK9020221
Outer Ards	UK9020271
Belfast Lough Open Water	UK9020290
Sheep Island	UK9020021
Antrim Hills	UK9020301
Copeland Islands	UK9020291
Lough Neagh and Lough Beg	UK9020091
East Coast (Marine)	UK9020320
Carlingford Lough (proposed marine extension)	UK9020161

APPENDIX G

EU Condition Assessment

Habitat Name*	Code	Conservation Status 2007	Conservation Status 2013 (and Trend)
Sandbanks	1110	Inadequate	**Favourable** Improvement owing to decline in pressures
Estuary	1130	Inadequate	**Unfavourable-Inadequate** Trend is likely improvement in habitat condition in the future
Mudflats and Sandflats not covered by seawater at low tide	1140	Inadequate	**Unfavourable-Inadequate** Trend is likely improvement in habitat condition in the future
Lagoons *	1150	Bad	**Unfavourable-Bad** No change since previous assessment period
Large Shallow Inlets and Bays	1160	Inadequate	**Unfavourable-Inadequate** Although inadequate, trend is considered to be improvement
Reefs	1170	Inadequate	**Unfavourable-Bad** Declining as there is no indication that current pressures will reduce in the future
Annual vegetation of drift lines	1210	Inadequate	**Unfavourable-Inadequate** Declining owing to loss of area and impairment of structure & functions
Perennial vegetation of drift lines	1220	Inadequate	**Unfavourable-Inadequate** Trend is stable (e.g. no change)
Vegetated sea cliffs of the Atlantic and Baltic coasts	1230	Inadequate	**Unfavourable-Inadequate** Trend is estimated as stable though potential impacts of climate change may pose a more serious threat
Salicornia and other annuals colonising mud and sand	1310	Inadequate	**Unfavourable-Inadequate** Trend is estimated as declining owing to on-going spread of common cordgrass
Spartina Swards (Spartinion)	1320	Bad	No Assessment given owing to the non-native nature (in Ireland) of this habitat
Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)	1330	Inadequate	**Unfavourable-Inadequate** Trend is stable though grazing levels may impact habitat condition
Mediterranean salt meadows (*Juncetalia maritimi*)	1410	Inadequate	**Unfavourable-Inadequate** Trend is stable though grazing levels may impact habitat condition
Halophlilous Scrub	1420	Bad	**Unfavourable-Bad** Trend is declining owing to habitat vulnerability and losses
Embryonic shifting dunes	2110	Inadequate	**Unfavourable-Inadequate** Trend is Stable (negligible national loss of area)
Shifting dunes along the shoreline with *Ammophila arenaria* (“white dunes”)	2120	Bad	**Unfavourable-Inadequate** Trend is stable (no real change, owing to differing assessment methodology)
Fixed coastal dunes with herbaceous vegetation	2130	Bad	**Unfavourable-Bad** Trend is stable (no change in recreational

Habitat Name*	Code	Conservation Status 2007	Conservation Status 2013 (and Trend)
(grey dunes) *			pressures and grazing levels including undergrazing)
Decalcified *Empetrum* Dunes *	2140	Bad	**Unfavourable-Inadequate** Trend is slight improvement related to change in interpretation criteria
Decalcified dune Heath *	2150	Bad	**Unfavourable-Inadequate** Trend is slight improvement related to change in interpretation criteria
Dunes with Creeping Willow	2170	Inadequate	**Unfavourable-Inadequate** Trend is stable due to no apparent overall change in management pressures
Humid dune slacks	2190	Bad	**Unfavourable-Inadequate** Declining in view of the ongoing pressures and threats
Machair *	21A0	Bad	**Unfavourable-Bad** Trend is stable (negligible national loss of area and habitat compromise due to management regimes)
Oligotrophic soft water Lakes	3110	Bad	**Unfavourable-Bad** Trend is declining owing to eutrophication
Soft water lakes with base-rich influences	3130	Bad	**Unfavourable-Inadequate**. Change to improved ecological analysis.
Hard water lakes	3140	Bad	**Unfavourable-Bad** Trend is declining owing to continued pollution events
Natural eutrophic lakes	3150	Bad	**Unfavourable-Inadequate** Trend is stable, with change in status due to improved ecological analysis
Dystrophic lakes	3160	Bad	**Unfavourable-Inadequate** Trend is declining but change of assessment due to better ecological understanding of the distribution and ecological requirements of this habitat
Turloughs *	3180	Inadequate	**Unfavourable-Inadequate** Trend is stable but threats still remain
Floating river vegetation	3260	Bad	**Unfavourable-Inadequate** Trend is declining but change of assessment due to better ecological understanding of the distribution and ecological requirements of this habitat
Chenopdium rubri	3270	Favourable	**Favourable** Trend is considered stable but further work required to improve understanding
Wet Heath	4010	Bad	**Unfavourable-Bad** Trend is stable owing to stocking reductions compensating for habitat loss

Habitat Name*	Code	Conservation Status 2007	Conservation Status 2013 (and Trend)
European dry heaths	4030	Inadequate	**Unfavourable-Bad** Trend is declining owing to differing assessment methodology and greater information
Alpine and subalpine heath	4060	Inadequate (on hindsight the assessment should have been bad)	**Unfavourable-Bad** Trend is improving owing to improvements in management
Juniper scrub	5130	Inadequate	**Unfavourable-Inadequate** Trend is stable owing to no apparent change in circumstances or condition
Calaminarian grassland	6130	Inadequate	**Unfavourable-Inadequate** Trend is stable and better understanding should feed into improved management regimes
Orchid-rich calcareous grassland *	6210	Bad	**Unfavourable-Bad** Trend is stable but no change in pressures in near future
Species-rich *Nardus* upland grassland *	6230	Bad	**Unfavourable-Bad** Trend is declining owing to losses from non-compatible land uses
Molinia Meadows	6410	Bad	**Unfavourable-Bad** Trend is declining owing to abandonment of management scrub encroachment
Hydrophillous tall herb	6430	Inadequate (on hindsight the assessment should have been bad)	**Unfavourable-Bad** Trend is declining despite its marginal extent owing to reclamation
Lowland Hay meadows	6510	Bad	**Unfavourable-Bad** Trend is stable owing to no overall change in extent of management
Raised Bog (active) *	7110	Bad	**Unfavourable-Bad** Trend is declining owing to ongoing extraction and drying out. Limited trials of drain blocking are showing signs of success
Degraded Raised Bog	7120	Inadequate	**Unfavourable-Bad** Trend is declining owing to loss of extent and habitat degradation
Blanket Bog (active) *	7130	Bad	**Unfavourable-Bad** Trend is declining owing to loss of extent and habitat degradation
Transition Mires	7140	Bad	**Unfavourable-Bad** Trend is unconfirmed owing to lack of nationwide scientific data
Rhynchosprion Depressions	7150	Favourable	**Unfavourable-Inadequate**

Habitat Name*	Code	Conservation Status 2007	Conservation Status 2013 (and Trend)
			Trend is declining owing to habitat changes and species loss
Cladium Fen *	7210	Bad	**Unfavourable-Bad** Trend is unconfirmed owing to lack of nationwide scientific data
Petrifying Springs *	7220	Bad	**Unfavourable-Inadequate** Trend is stable but pressures and poor management regimes remain
Alkaline Fen	7230	Bad	**Unfavourable-Bad** Trend is unconfirmed owing to lack of nationwide scientific data
Siliceous Scree	8110	Inadequate	**Unfavourable-Inadequate** Trend is improving owing to implementation of commonage framework plans
Eutric Scree	8120	Inadequate	**Unfavourable-Inadequate** Trend is stable with no change
Calcareous rocky slopes	8210	Inadequate	**Unfavourable-Inadequate** Trend is stable although grazing levels can impair quality
Siliceous rocky slopes	8220	Inadequate	**Unfavourable-Inadequate** Trend is stable although grazing, recreation and spread of invasive species continue
Limestone Pavement *	8240	Inadequate	**Unfavourable-Inadequate** Trend is stable owing to management measures to control losses
Caves	8310	Favourable	**Favourable** Additional research required to understand structure and subterranean climatic conditions
Sea Caves	8330	Favourable	**Favourable** Trend is stable as no significant pressures
Old Oak Woodlands	91A0	Bad	**Unfavourable-Bad** Trend is improving due in part to considerable management effort to rehabilitate habitat
Bog Woodland *	91D0	Inadequate	**Favourable** Trend is improving owing to better understanding of, and subsequent increase in extent
Residual Alluvial Forests *	91E0	Bad	**Unfavourable-Bad** Trend is improving owing to level of rehabilitation to date
Taxus baccata woods*	91J0	Bad	**Unfavourable-Bad** Trend is improving to increase area and curtail threatening impacts
Submarine structures made by leaking gases	1180	N/A	Natura 2000 dataform suggests Good

* Indicates priority habitat under the Habitats Directive

Species	Code	Conservation Status 2007	Conservation Status 2013 (and Trend)
Killarney Fern (*Trichomanes speciosum*)	1421	Favourable	**Favourable** Trend is stable with no significant impact
Marsh Saxifrage (*Saxifaga granulata*)	1528	Favourable	**Favourable** Trend is stable with no significant impact
Slender Naiad (*Najas flexilis*)	1833	Inadequate	**Unfavourable-Inadequate** Trend is stable but eutrophication remains an issue
Slender Green Feather Moss (*Hamatocaulis vernicosus*)	1393	Favourable	**Favourable** Trend is stable with no significant impact
Petalwort (*Petalophyllum ralfsii*)	1395	Favourable	**Favourable** Trend is stable with no significant impact
Maërl (*Lithothamnion corralloides*)	1376	Inadequate	**Unfavourable-Inadequate** Trend is improving due to genuine improvement. Fishing and aquaculture related activities are not considered to be a threat to these species in the future
Maërl (*Phymatolithon calcareum*)	1377	Inadequate	**Unfavourable-Inadequate** Trend is improving due to genuine improvement. Fishing and aquaculture related activities are not considered to be a threat to these species in the future
White cushion moss (*Leucobryum glaucum*)	1400	Inadequate	**Favourable** No genuine change but it is widespread, occurs in many habitat types and is not under pressure or threat directly
Sphagnum genus	1409	Inadequate	**Unfavourable-Inadequate** No change in trend. Condition of habitats considered to be poor due to peat extraction, drainage, eutrophication and ecologically unsuitable grazing
Lycopodium group	1413	Inadequate	**Unfavourable-Inadequate** No change in trend. Condition of habitats considered to be poor due to peat extraction, drainage, eutrophication and ecologically unsuitable grazing
Cladonia subgenus cladina	1378	Inadequate	**Unfavourable-Inadequate** No change in trend. Condition of habitats considered to be poor due to peat extraction, drainage, eutrophication and ecologically unsuitable grazin
Geyers whorl snail (*Vertigo geyeri*)	1013	Inadequate	**Unfavourable-Inadequate** Genuine decline in trend with losses not fully understood. Sites for species fragile and easily damaged
Narrow-mouthed whorl snail (*Vertigo angustoir*)	1014	Inadequate	**Unfavourable-Inadequate** Genuine decline in trend due to changes in grazing and wetland drainage

Species	Code	Conservation Status 2007	Conservation Status 2013 (and Trend)
Desmoulins Whorl Snail (*Vertigo moulinsiana*)	1016	Bad	**Unfavourable-Inadequate** Decline in trend. Genuine losses of population in the last assessment period through succession and drying out of wetlands have not been recovered
Kerry Slug (*Geomacalus maculosus*)	1024	Favourable	**Favourable** Trend stable. No evidence of decline, habitats remain in good condition
Freshwater Pearl Mussel (*Margaritifera margaritifera*)	1029	Bad	**Unfavourable-Bad** Decline in trend. Wide variety of sources of sediment and nutrients entering mussel rivers. Direct impacts from in-stream works
Irish Freshwater Pearl Mussel (*Margaritifera durrovensis*)	1990	Bad	**Unfavourable-Bad** Decline in trend. Despite significant conservation efforts it is unlikely that the habitat will be restored before the extinction of the wild population
White-Clawed Crayfish (*Austropotambius pallipes*)	1092	Inadequate	**Unfavourable-Inadequate** Trend is stable. Threat from disease introduction is severe and unlikely to disappear
Marsh Fritillary (*Euphydryas aurinia*)		Inadequate	**Unfavourable-Inadequate** Decline in trend. Appropriate measures need to be taken to reduce pressures
Sea Lamprey (*Petromyzon marinus*)	1095	Inadequate	**Unfavourable-Bad** Trend is stable. Decline in status due to improved knowledge. Low number of juveniles due to barriers to migration
River Lamprey (*Lampetra fluviatilis*)	1099	Favourable	**Favourable** No change. Extensive areas of suitable habitat and no significant pressures
Brook Lamprey (*Lampetra planeri*)	1096	Favourable	**Favourable** No change. Extensive areas of suitable habitat and no significant pressures
Killarney Shad (*Alosa fallax killarnensis*)	5046	Favourable	**Favourable** No change. Species maintaining robust population and habitat favourable
Twaite Shad (*Alosa fallax fallax*)	1103	Bad	**Unfavourable-Bad** Trend stable, approach refined. Concerns about habitat quality at spawning sites and hybridisation with Allis Shad
Pollan (*Coregonus autumnalis*)	5076	Bad	**Unfavourable-Bad** No change in trend. Pressures identified include depletion of oxygen through enrichment, introduced species competing for food and the presence of Zebra mussels and Asian clams

Species	Code	Conservation Status 2007	Conservation Status 2013 (and Trend)
Atlantic Salmon (*Salmo salar*)	1106	Bad	**Unfavourable-Inadequate** Trend stable, no genuine change. This is due to threats to habitat quality and low populations compared to previous years
Natterjack Toad (*Bufo calamita*)	1202	Bad	**Unfavourable-Bad** Trend improved due to investment in pond creation increasing available habitat
Common Frog (*Rana temporaria*)	1213	Inadequate	**Favourable** No trend change but improved status due to better understanding of how frogs use the Irish landscape
Leatherback Turtle (*Dermochelys coriacea*)	1223	Inadequate	**Unknown** Full assessment not possible due to significant difficulties associated with studying the species
Lesser Horseshoe Bat (*Rhinolophus hipposideros*)	1303	Favourable	**Favourable** Trend is stable. Significant proportion of summer and winter roosts protected within SACs. Increased population
Common Pipistrelle (*Pipistrellus pipistrellus*)	1309	Favourable	**Favourable** Trend is stable. Population stable, possibly increasing
Soprano Pipistrelle (*Pipistrellus pygmaeus*)	5009	Favourable	**Favourable** Trend is stable. Population increasing
Nathusius' Pipistrelle (*Pipistrelle nathusii*)	1317	Favourable	**Unknown** Unknown due to uncertain data
Natterer's Bat (*Myotis nattereri*)	1322	Favourable	**Favourable** Trend is stable. Area of suitable habitat increasing
Daubenton's Bat (*Myotis daubentonii*)	1314	Favourable	**Favourable** Trend is stable. Stable populations
Whiskered Bat (*Myotis mystacinus*)	1330	Favourable	**Favourable** Trend is stable. Area of suitable habitat increasing
Brown Long-Eared Bat (*Plecotus auritus*)	1326	Favourable	**Favourable** Trend is stable. Population increasing
Leisler's Bat (*Nyctalus leisleri*)	1331	Favourable	**Favourable** Trend is stable. Population increasing
Mountain Hare (*Lepus timidus*)	1334	Inadequate	**Favourable** Change due to improved knowledge. Hare is widespread with broad habitat niche
Otter (*Lutra lutra*)	1355	Inadequate	**Favourable** Trend improved. Previous concerns about population decline have been allayed
Pine Marten (*Martes martes*)	1357	Favourable	**Favourable** Trend is stable. Ample habitat available

Species	Code	Conservation Status 2007	Conservation Status 2013 (and Trend)
Grey Seal (*Halichoerus grypous*)	1364	Favourable	**Favourable** Trend is stable (owing to improved knowledge)
Common Seal (*Phoca vitulina vitulina*)	1365	Favourable	**Favourable** Trend is stable (owing to improved knowledge)
Humpback Whale (*Megaptera novaeangliae*)	1345	Unknown	**Unknown** No change
Bottle-Nosed Dolphin (*Tursiops truncatus*)	1349	Favourable	**Favourable** Trend is stable. Improved knowledge
Common Dolphin (*Delphinus delphis*)	1350	Favourable	**Favourable** Trend is stable. Improved knowledge
Harbour porpoise (*Phocoena phocoena*)	1351	Favourable	**Favourable** Trend is stable
Killer Whale (*Orcinus orca*)	2027	Unknown	**Unknown** No change
Long-Finned Pilot Whale (*Globicephala melas*)	2029	Unknown	**Favourable** No trend. Improved status due to improved knowledge
Risso's Dolphin (*Grampus griseus*)	2030	Unknown	**Unknown** No change
White-Sided Dolphin (*Lagenorhynchus acutus*)	2031	Favourable	**Favourable** Trend is stable
White-Beaked Dolphin (*Lagenorhynchus albirostris*)	2032	Unknown	**Favourable** No trend. Improved status due to improved knowledge
Striped Dolphin (*Stenella coeruleoalba*)	2034	Unknown	**Favourable** No trend. Improved status due to improved knowledge
Cuvier's Beaked Whale (*Ziphius cavirostris*)	2035	Unknown	**Unknown** No change
Sowerby's Beaked Whale (*Mesoplodon bidens*)	2038	Unknown	**Unknown** No change
Minke Whale (*Balaenoptera acutorostrata*)	2618	Favourable	**Favourable** Trend is stable
Fin Whale (*Balaenoptera physalus*)	2621	Favourable	**Favourable** Trend is stable
Blue Whale (*Balaenoptera musculus*)	5020	Unknown	**Unknown** No change
Sperm Whale (*Physeter catodon*)	5031	Unknown	**Unknown** No change
Northern Bottlenose Whale (*Hyperoodon ampullatus*)	5033	Unknown	**Unknown** No change
Sei Whale (*Balaenoptera borealis*)	2619	Unknown	**Unknown** No change

Species	Code	Conservation Status 2007	Conservation Status 2013 (and Trend)
Vagrants (Species which have previously been recorded but are not assessed owing to infrequent nature of records)			
Northern Right Whale (*Eubalaena glacialis*)	1348	Unknown	**Unknown** Vagrant
False Killer Whale (*Pseudorca crassidens*)	2028	Unknown	**Unknown** Vagrant
True's Beaked Whale (*Mesoplodon mirus*)	2037	Unknown	**Unknown** Vagrant
Pygmy Sperm Whale (*Kogia breviceps*)	2622	Unknown	**Unknown** Vagrant
Beluga/White Whale (*Delphinapterus leucas*)	5029	Unknown	**Unknown** Vagrant
Gervais' Beaked Whale (*Mesoplodon europaeus*)	5034	Unknown	**Unknown** Vagrant
Allis Shad (*Alosa alosa*)	1102	Unknown	**Unknown** Vagrant
Brandt's (*Myotis brandtii*)	1320	Unknown	**Unknown** Vagrant

Bird Species	Code	Status BoCCI2 2007-2013*	Status BoCCI3 2014-2019*
Red-throated Diver (*Gavia stellata*)	A001	Amber (breeding)	**Amber** (breeding)
Great Northern Diver (*Gavia immer*)	A003	Green (wintering)	**Amber** (wintering)
Little Grebe (*Tachybaptus ruficollis*)	A004	Amber (breeding/wintering)	**Amber** (breeding/wintering)
Great Crested Grebe (*Podiceps cirstatus*)	A005	Amber (breeding/wintering)	**Amber** (breeding/wintering)
Fulmar (*Fulmarus glacialis*)	A009	Green (breeding)	**Green** (breeding)
Manx Shearwater (*Puffinus puffinus*)	A013	Amber (breeding)	**Amber** (breeding)
Storm Petrel (*Hydrobates pelagicus*)	A014	Amber (breeding)	**Amber** (breeding)
Leach's Storm-petrel (*Oceanodroma leucorhoa*)	A015	Amber (breeding)	**Red** (breeding)
Gannet (*Morus bassanus*)	A016	Amber (breeding)	**Amber** (breeding)
Cormorant (*Phalacrocorax carbo*)	A017	Amber (breeding/wintering)	**Amber** (breeding/wintering)
Shag (*Phalacrocorax aristotelis*)	A018	Amber (breeding)	**Amber** (breeding)
Grey heron (*Ardea cinerea*)	A028	Green (breeding/wintering)	**Green** (breeding/wintering)

Bird Species	Code	Status BoCCI2 2007-2013*	Status BoCCI3 2014-2019*
Bewick's Swan (*Cygnus columbianus bewickii*)	A037	Red (wintering)	**Red** (wintering)
Whooper Swan (*Cygnus cygnus*)	A038	Amber (wintering)	**Amber** (wintering)
Greylag Goose *(Anser anser*)	A043	Amber (wintering)	**Amber** (wintering)
Barnacle Goose (*Branta leucopsis*)	A045	Amber (wintering)	**Amber** (wintering)
Light-bellied Brent Goose (*Branta bernicola hrota*)	A046	Amber (wintering)	**Amber** (wintering)
Shelduck (*Tadorna tadorna*)	A048	Amber (breeding/wintering)	**Amber** (breeding/wintering)
Wigeon (*Anas penelope)*	A050	Amber (wintering)	**Red** (wintering)
Gadwall (*Anas strepera*)	A051	Amber (breeding/wintering)	**Amber** (breeding/wintering)
Teal (*Anas crecca*)	A052	Amber (breeding/wintering)	**Amber** (breeding/wintering)
Mallard (*Anas pyatyrhynchos*)	A053	Green (wintering)	**Green** (wintering)
Pintail (*Anas acuta*)	A054	Red (wintering)	**Red** (wintering)
Shoveler (*Anas clypeata*)	A056	Red (wintering)	**Red** (wintering)
Pochard *(Aythya farina*)	A059	Amber (wintering)	**Red** (wintering)
Tufted Duck (*Aythta fuligula*)	A061	Amber (wintering)	**Red** (wintering)
Scaup (*Aythya marila*)	A062	Amber (wintering)	**Amber** (wintering)
Eider (*Somateria mollissima*)	A063	Amber (breeding/wintering)	**Amber** (breeding/wintering)
Common Scoter (*Melanitta nigra*)	A065	Red (breeding)	**Red** (breeding)
Goldeneye (B*ucephala clangula*)	A067	Amber (wintering)	**Red** (wintering)
Red-breasted Merganser (*Mergus serrator*)	A069	Green (breeding/wintering)	**Green** (breeding/wintering)
Hen Harrier (*Circus cyaneus*)	A082	Amber (breeding)	**Amber** (breeding)
Merlin (*Falco columbarius*)	A098	Amber (breeding)	**Amber** (breeding)
Peregrine (*Falco peregrinus*)	A103	Green (breeding)	**Green** (breeding)
Corncrake (*Crex crex*)	A122	**Red** (breeding)	**Red** (breeding)
Coot (*Fulica atra*)	A125	**Amber** (breeding/wintering)	**Amber** (breeding/wintering)
Oystercatcher (*Haematopus ostralegus*)	A130	Amber (breeding/wintering)	**Amber** (breeding/wintering)
Ringed Plover (*Charadrius hiaticula*)	A137	Amber (wintering)	**Green** (wintering)
Golden Plover (*Pluvialis apricaria*)	A140	Red (breeding/wintering)	**Red** (breeding/wintering)
Grey Plover (*Pluvialis squatarola*)	A141	Amber(wintering)	**Amber** (wintering)

Bird Species	Code	Status BoCCI2 2007-2013*	Status BoCCI3 2014-2019*
Lapwing (*Vanellus vanellus*)	A142	Red (breeding/wintering)	**Red** (breeding/wintering)
Knot (*Calidris canutus*)	A143	Red (wintering)	**Amber** (wintering)
Sanderling (*Calidris alba*)	A144	Green (wintering)	**Green** (wintering)
Purple Sandpiper (*Calidris maritima*)	A148	Green (wintering)	**Green** (wintering)
Dunlin (*Calidris alpina*)	A149	Amber (breeding/wintering)	**Red** (breeding/wintering)
Black-tailed Godwit (*Limosa limosa*)	A156	Amber (wintering)	**Amber** (wintering)
Bar-tailed Godwit (*Limosa lapponica*)	A157	Amber (wintering)	**Amber** (wintering)
Curlew (*Numenius arquata*)	A160	Red (breeding/wintering)	**Red** (breeding/wintering)
Redshank (*Tringa totanus*)	A162	Red (breeding/wintering	**Red** (breeding/wintering)
Greenshank (*Tringa nebularia*)	A164	Amber (wintering)	**Green** (wintering)
(Ruddy) Turnstone (*Arenaria interpres*)	A169	Green (wintering)	**Green** (wintering)
Black Headed Gull (*Chroicocephalus ridibundus*)	A179	Red (breeding)	**Red** (breeding)
Common Gull (*Larus canus*)	A182	Amber (breeding)	**Amber** (breeding)
Lesser Black-backed Gull (*Larus fuscus*)	A183	Amber (breeding)	**Amber** (breeding)
Herring Gull (*Larus argentatus*)	A184	Red (breeding)	**Red** (breeding)
Kittiwake (*Rissa tridactyla*)	A188	Amber (breeding)	**Amber** (breeding)
Sandwich Tern (*Sterna sandvicensis*)	A191	Amber (breeding)	**Amber** (breeding)
Roseate Tern (*Sterna dougallii*)	A192	Amber (breeding)	**Amber** (breeding)
Common Tern (*Sterna hirundo*)	A193	Amber (breeding)	**Amber** (breeding)
Arctic Tern (*Sterna paradisaea*)	A194	Amber (breeding)	**Amber** (breeding)
Guillemot (*Uria aalge*)	A199	Amber (breeding)	**Amber** (breeding)
Razorbill (*Alca torda*)	A200	Amber (breeding)	**Amber** (breeding)
Puffin (*Fratercula arctica*)	A204	Amber (breeding)	**Amber** (breeding)
Kingfisher (*Alcedo atthis*)	A229	Amber (breeding)	**Amber** (breeding)
Chough (*Pyrrhocorax pyrrhocorax*)	A346	Amber (breeding)	**Amber** (breeding)
Greenland White-fronted Goose (*Anser albifrons flavirostric*)	A395	Amber (wintering)	**Amber** (wintering)
Wetland & Waterbirds	A999	---	---

*Taken from *Birds of Conservation Concern* Reports; BOCCI2: Lynas *et. al*. (2007), BOCCI3: Colhoun and Cummins (2013).

Reference has also been made to Irelands (Birds Directive) Article 12 submission to the EU Commission on the *Status and trends of birds species (2008-2012)*[20].

[20] http://ec.europa.eu/environment/nature/knowledge/rep_birds/index_en.htm

APPENDIX H

Generic Threats and Pressures Considered Relevant to the NPF

Code	Description
A	**Agriculture**
A01	Cultivation
A02	Modification of cultivation practices
A02.01	Agricultural intensification
A02.02	Crop change
A02.03	Grassland removal for arable land
A04	Grazing
A04.01	Intensive grazing
A04.02	Non-intensive grazing
A04.03	Abandonment of pastoral systems, lack of grazing
A05	Livestock farming and animal breeding (without grazing)
A05.01	Animal breeding
A05.03	Lack of animal breeding
A06	Annual and perennial non-timber crops
A06.03	Biofuel production
A06.04	Abandonment of crop production
B	**Silviculture, forestry**
B01	Forest planting on open ground
B01.01	Forest planting on open ground (native trees)
B01.02	Artificial planting on open ground (non-native trees)
B02	Forest and Plantation management & use
B02.01	Forest replanting
B02.01.01	Forest replanting (native trees)
B02.01.02	Forest replanting (non-native trees)
B02.02	Forestry clearance
B02.03	Removal of forest undergrowth
B02.04	Removal of dead and dying trees
B02.05	Non- intensive timber production (leaving dead wood/ old trees untouched)
B02.06	Thinning of tree layer
B03	Forest exploitation without replanting or natural regrowth
C	**Mining, extraction of materials and energy production**
C01	Mining and quarrying
C01.01	Sand and gravel extraction
C01.01.01	Sand and gravel quarries
C01.01.02	Removal of beach materials
C01.02	Loam and clay pits
C01.03	Peat extraction
C01.03.01	Hand cutting of peat
C01.03.02	Mechanical removal of peat
C01.04	Mines

Code	Description
C01.04.01	Open cast mining
C01.04.02	Underground mining
C01.05	Salt works
C01.05.01	Abandonment of saltpans (salinas)
C01.05.02	Conversion of saltpans
C01.06	Geotechnical survey
C01.07	Mining and extraction activities not referred to above
C02	Exploration and extraction of oil or gas
C02.01	Exploration drilling
C02.02	Production drilling
C02.03	Jack-up drilling rig
C02.04	Semi-submersible rig
C02.05	Drill ship
C03	Renewable abiotic energy use
C03.01	Geothermal power production
C03.02	Solar energy production
C03.03	Wind energy production
C03.04	Tidal energy production
D	**Transportation and service corridors**
D01	Roads, paths and railroads
D01.01	Paths, tracks, cycling tracks
D01.02	Roads, motorways
D02	Utility and service lines
D02.01	Electricity and phone lines
D02.01.01	Suspended electricity and phone lines
D02.01.02	Underground/submerged electricity and phone lines
D02.02	Pipe lines
D02.03	Communication masts and antennas
D02.09	Other forms of energy transport
D03	Shipping lanes, ports, marine constructions
D03.01	Port areas
D03.01.04	Industrial ports
D03.02	Shipping lanes
D03.02.01	Cargo lanes
D03.02.02	Passenger ferry lanes (high speed)
D03.03	Marine constructions
D04	Airports, flightpaths
E	**Urbanisation, residential and commercial development**
E01	Urbanised areas, human habitation
E01.01	Continuous urbanisation
E01.03	Dispersed habitation
E02	Industrial or commercial areas
E02.01	Factory

Code	Description
E02.02	Industrial stockage
E02.03	Other industrial / commercial area
E03	Discharges
E03.01	Disposal of household / recreational facility waste
E03.02	Disposal of industrial waste
E03.03	Disposal of inert materials
E03.04	Other discharges
E03.04.01	Coastal sand suppletion/ beach nourishment
E04	Structures, buildings in the landscape
E04.01	Agricultural structures, buildings in the landscape
E04.02	Military constructions and buildings in the landscape
E05	Storage of materials
E06	Other urbanisation, industrial and similar activities
E06.01	Demolishment of buildings & human structures
G	**Human intrusions and disturbances**
G01.01	Nautical sports
G01.01.01	Motorised nautical sports
G01.03	Motorised vehicles
G02	Sport and leisure structures
G02.03	Stadium
G02.04	Circuit, track
G02.06	Attraction park
G05.03	Penetration/ disturbance below surface of the seabed
H	**Pollution**
H04	Air pollution, air-borne pollutants
H04.02	Nitrogen-input
H04.03	Other air pollution
H06	Excess energy
H07	Other forms of pollution
I	**Invasive, other problematic species and genes**
I01	Invasive non-native species
I02	Problematic native species
J	**Natural System modifications**
J01	Fire and fire suppression
J02	Human induced changes in hydraulic conditions
J02.01	Landfill, land reclamation and drying out, general
J03	Other ecosystem modifications
J03.01	Reduction or loss of specific habitat features
L	**Geological events, natural catastrophes**
L01	Volcanic activity
L09	Fire (natural)
M	**Climate change**
M01	Changes in abiotic conditions

Code	Description
M01.01	Temperature changes (e.g. rise of temperature & extremes)
M01.02	Droughts and less precipitations
M01.03	Flooding and rising precipitations
M01.04	pH-changes
M01.05	Water flow changes (limnic, tidal and oceanic)
M01.06	Wave exposure changes
M01.07	Sea-level changes
M02	Changes in biotic conditions
M02.01	Habitat shifting and alteration
M02.02	Desynchronisation of processes
M02.03	Decline or extinction of species
M02.04	Migration of species (natural newcomers)
XO	**Threats and pressures from outside the Member State**