

Eastern & Midland Regional Assembly

# Natura Impact Report

Regional Spatial and Economic Strategy



Tionscadal Éireann  
Project Ireland  
2040



Tionól Reigiúnach Oirthir agus Lár-Tíre  
Eastern and Midland Regional Assembly

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## Preface

The Eastern and Midland Regional Assembly (EMRA) is currently preparing the Eastern and Midland Regional, Spatial and Economic Strategy (RSES).

The purpose of this Natura Impact Report (NIR) is to record the assessment process which has been applied to date as part of the Appropriate Assessment for the Eastern and Midlands Regional Spatial and Economic Strategy under Article 6(3) of the EU Habitats Directive [92/43/EEC] as transposed through Part XAB of the Planning and Development Act 2000, as amended.

In preparing this NIR, a multi-stage approach has been taken. The purpose of this staged approach has been to align the AA process with the requirements of the Strategic Environmental Assessment (SEA) Directive [2001/42/EC] process which is also required to support the development of the Eastern and Midlands RSES. Art. 3.2(b) of the SEA Directive expressly links to assessments pursuant to Article 6 of Directive 92/43/EEC. The preparation of the SEA and AA reporting comprises an integrated approach, such as sharing of baseline data and mapping of European Sites, sharing of potential ecological effects of the RSES on European Sites and clarification on more technical aspects of the RSES. These processes together have informed and shaped the development of the Eastern and Midlands RSES.

The SEA process requires that an environmental report is prepared to accompany a draft plan (or in this case strategy) for public consultation prior to adoption of the final plan. In the case of land use plans such as the RSES, further stages may be required in the form of material amendments, prior to finalisation, as was the case for the RSES. The SEA process tracks and assesses the changes made throughout the evolution to final plan. The AA assessment and reporting for plans and strategies such as the RSES has developed to inform these key stages of plan development including draft plan, material amendments and final plan.

This NIR records the AA carried out from RSES inception to the making of the final RSES by the EMRA. Prior to making of the final RSES, this NIR alongside other relevant information and documentation will be considered by EMRA and a determination will be made as to whether the Eastern and Midlands RSES would, alone or in combination with other plans and projects, give rise to adverse impacts on the integrity of any European site. This determination will be provided under separate cover.

# 1 INTRODUCTION

The Eastern and Midland Regional Assembly (EMRA) is currently preparing the Eastern and Midland Regional, Spatial and Economic Strategy (RSES). The main statutory purpose of the RSES is to support the implementation of *Project Ireland 2040 – the National Planning Framework* (hereafter referred to as the NPF), and the economic policies and objectives of the Government by providing a long-term strategic planning and economic framework for the development of the region. The Eastern and Midland RSES is a strategic plan which identifies regional assets, opportunities and pressures and will provide appropriate policy, objective and target responses at the regional level. It will put in place policies and recommendations that will better manage regional planning and economic development throughout the region.

By its nature the RSES is a high level document which is one of a series of building blocks for a tiered planning system. It does not, in and of its own right, confer planning permission for any specific development but rather it funnels the objectives of the National Planning Framework with a view to further guiding the subsequent tiers of planning in their more detailed decision making.

## 1.1 SCOPE OF THE NATURA IMPACT REPORT

RPS, on behalf of the EMRA, as the Competent Authority for the Eastern and Midlands RSES, prepared a Screening for Appropriate Assessment (AA) Report in accordance with the requirements of Part XAB of the Planning and Development Act 2000, as amended. The screening report was prepared to assess, in view of best scientific knowledge, whether the Eastern and Midlands RSES, individually or in combination with other plans and projects, is likely to have a significant effect on a European site. The determination by EMRA on the Screening for AA is as follows;

*'It cannot be excluded, on the basis of objective scientific information and in view of best scientific knowledge, that the EM RSES, individually or in combination with another plan and project, will have a likely significant effect on a European site. As such, it has been determined that AA will move to Stage 2 AA and a Natura Impact Report (NIR) will be prepared.'*

This NIR has been prepared in support of the AA process having regard for the legislative requirements of EU and national law. A NIR is defined under section 177T of the Planning and Development Act 2000, as amended:

177T.— (1) In this Part—

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

The NIR comprises an examination, analysis, evaluation, findings, conclusions and will inform the AA determination to be made by EMRA prior to finalising and making the RSES as to whether or not the RSES would adversely affect the integrity of a European site (alone or in combination with other plans and projects). The AA determination will be published alongside the RSES as made by EMRA. The responsibility for carrying out the AA lies with the EMRA.

## 1.2 LAYOUT OF THE NIR

As noted in the preface, a multi stage approach has been applied to the preparation of the NIR to align it with the stages of Strategic Environmental Assessment which is being undertaken in parallel under Directive 2001/42/EC. This NIR therefore presents the assessments and mitigation relating to the draft Eastern and Midlands RSES [dated September 2018]; Proposed Material Amendments to the draft Eastern and Midlands RSES [dated Jan 2019] and the final version of the Eastern and Midlands RSES which is proposed for adoption. The layout of this material is as follows:

- Chapters 1-6 deal with the description of the RSES, approach and methodology for the NIR, supporting information in relation to the Natura 2000 network and a summary of the AA screening undertaken on the RSES. In the main, these chapters are unaltered from the draft NIR which was prepared to accompany the draft Eastern and Midlands RSES which were the subject of public consultation between 5<sup>th</sup> November 2018 and 23<sup>rd</sup> January 2019. Where significant changes to text have been made to these chapters, as a result of feedback from the consultation, they are highlighted in **blue text**. New text added in relation to consultation feedback prior to the publication of the draft RSES is also presented in **blue text** in chapter 2.
- Chapter 7 presents the main assessment chapter in relation to the draft NIR prepared to accompany the draft RSES for public consultation. Again the chapter remains broadly unchanged with the exception of minor changes to reflect stakeholder feedback with such changes highlighted in **blue text**.
- Chapter 8 has been added to address Material Amendments made to the draft RSES following public consultation. All changes were assessed in the context of likely significant effects and their potential to adversely affect the integrity of a European site(s). This chapter is accompanied by Appendix I to the NIR which records the assessment stage.
- Chapter 9 presents the mitigation measures required in relation to implementation of the proposed final RSES and how they have been addressed in the final RSES to be adopted.
- Chapter 10 includes the overall conclusion of the NIR in relation to the Eastern and Midlands RSES as proposed for adoption.

## 1.3 LEGISLATIVE CONTEXT FOR APPROPRIATE ASSESSMENT

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. In Ireland, the Natura 2000 network of European sites comprise Special Areas of Conservation (SACs) designated under the Habitats Directive (92/43/EEC) 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 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 draft RSES, the governing legislation is principally Part XAB of the Planning and Development Act 2000, as amended. Regulation 27 of the Birds and Natural Habitats Regulations 2011, as amended also has relevance as which sets out the general duties of public authorities in relation to the nature directives and nature conservation.



## 2 ASSESSMENT METHODOLOGY

### 2.1 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 2015.

#### Guidance:

- Article 6 of the Habitats Directive – Rulings of the European Court of Justice. Final Draft September 2014;
- 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 (2002);
- EC Natura 2000 and Spatial Planning. European Commission (2017).
- 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).
- Marine Natura Impacts Statements in Irish Special Areas of Conservation. A working Document. DAHG (2012).
- Wind energy developments and Natura 2000. European Commission (2011)
- The implementation of the Birds and Habitats Directives in estuaries and coastal zones with particular attention to port development and dredging. European Commission (2011).
- 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).
- 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).
- Managing Natura 2000 sites: the provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC. European Commission (2000).

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<sup>1</sup> 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 September 2016.

### 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.
- 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.

### Other Relevant Texts:

- [European Union Biodiversity Strategy 2020](#);
- [National Biodiversity Action Plan 2017-2021](#);
- [River Basin Management Plan 2017-2021](#);
- [All Ireland Pollinator Plan 2015-2020](#);
- [Integrated Biodiversity Impact Assessment Practitioner’s Manual \(EPA\)](#);
- [National Peatlands Strategy](#);
- [2007 and 2013 Report on the Status of EU Protected Habitats and Species](#);
- [2013 Article 12 \(Birds Directive\) Report](#); and
- [Ireland’s Prioritised Framework for the Implementation of the Birds and Habitats Directive \(2014\)](#).

## 2.2 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. Some relevant publications include:

- Nature and Biodiversity Cases: Ruling of the European Court of Justice. European Commission (2006)
- Article 6 of the Habitats Directive: Rulings of the European Court of Justice. Ecosystems Ltd (2014)

Case law has been considered in the preparation of both the Screening for AA and this NIR of the RSES for EMR.

## 2.3 PURPOSE OF THE AA PROCESS

The overall purpose of the AA process is to ensure that the RSES does not result in any adverse effects on the integrity of any European Sites in view of its conservation objectives.

The development of the RSES, SEA and AA process is an iterative one which requires engagement with all parties and consultation with stakeholders. The AA process involves the analysis of the relationship between the proposed elements of the EM RSES and the conservation objectives of European sites. As part of the iterative assessment process RPS were provided with draft policies and objectives of the RSES, which were reviewed and feedback provided. Where there was potential of adverse impacts to occur, recommendations were made to avoid or mitigate potential impacts which were incorporated into the RSES to ensure no adverse effects on European sites.

## 2.4 STAGES OF APPROPRIATE ASSESSMENT

The Department of the Environment Heritage and Local Government guidelines (DOELHG, 2009) outlines the European Commission's methodological guidance (EC, 2002) promote a four-stage process to complete the AA, and outlines the issues and tests at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required. 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. Screening of the draft RSES was undertaken in May 2018 and it was determined by the EMRA in June 2018 that AA is required and an Natura Impact Report is required.

### 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.

As part of this stage, an NIR is prepared to support decision making and this document is the NIR for the Eastern and Midlands RSES. An NIR is described in Section 177T (2) of the Planning and Development Act 2000, as amended,

*(2) Without prejudice to the generality of subsection (1), a Natura impact report or a Natura impact statement, as the case may be, shall include a report of a scientific examination of evidence and data, carried out by competent persons to identify and classify any implications*

*for one or more than one [European site] in view of the conservation objectives of the site or sites.*

An AA determination will be made by the competent authority prior to finalising and making of the RSES. It is noted that this NIR relates to a plan rather than a project, and as such a multi-stage approach is being taken, in line with best practice. The first stage of the NIR relates to the draft Eastern and Midlands RSES and is subject to consultation alongside the draft RSES and SEA environmental report. *Following stakeholder feedback, material amendments are proposed and these amendments are also assessed in the context of AA. Following a further round of consultation focussed on the material amendments, the final RSES is prepared. The NIR is updated to reflect the final RSES. An AA determination will be made by the competent authority prior to making of the RSES.*

### **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. The Commission must be informed of the compensatory measures. Compensatory measures must be practical, implementable, likely to succeed, proportionate and enforceable, and they must be approved by the Minister of Housing, Planning and Local Government.

## **2.5 INFORMATION SOURCES CONSULTED**

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

- Information provided by EMRA on the RSES;
- Department of Housing, Planning, Community and Local Government – online land use mapping [www.myplan.ie/en/index.html](http://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](http://www.osi.ie);
- National Parks and Wildlife Service – online European Site information [www.npws.ie](http://www.npws.ie);
- Northern Ireland Environment Agency – online European Site information [www.daera-ni.gov.uk](http://www.daera-ni.gov.uk);
- National Parks and Wildlife Service – information on the status of EU protected habitats in Ireland (NPWS, 2013a, 2013b and 2013c);
- 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](http://www.epa.ie);
- CORINE (Co-ORDinated INformation on the Environment) data series was established by the European Community (EC) <http://www.epa.ie/soilandbiodiversity/soils/land/corine/>
- Information on River Basin Districts – [www.wfdireland.ie](http://www.wfdireland.ie);
- Geological Survey of Ireland (GSI) – geology, soils and hydrogeology [www.gsi.ie](http://www.gsi.ie);
- Forest Cover Datasets  
<https://www.agriculture.gov.ie/forests/forests-service/forests-service-general-information/forest-statistics-and-mapping/forest-cover-datasets/>
- *Format for a Prioritised Action Framework (PAF) for Natura 2000* (DAHG, 2014) [www.npws.ie/sites/default/files/general/PAF-IE-2014.pdf](http://www.npws.ie/sites/default/files/general/PAF-IE-2014.pdf);
- Birdwatch Ireland Species Action Plans;
- National Biodiversity Action Plan 2017-2021 (DCHG, 2017);
- Article 17 Overview Report Volume 1 (NPWS, 2013a);
- Article 17 Habitat Conservation Assessments Volume 2 (NPWS, 2013b);
- Article 17 Species Conservation Assessment Volume 3 (NPWS, 2013c); and
- River Basin Management Plan for Ireland 2018 - 2021 - [www.housing.gov.ie](http://www.housing.gov.ie).

## 2.6 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.

Impacts that could potentially occur through the implementation of the RSES can be categorised under a number of impact categories as outlined in the EC 2001 document as follows:

- Loss/Reduction of habitat area,
- Disturbance to key species,
- Habitat or species fragmentation,
- Reduction in species density, and

- Changes in key indicators of conservation value such as decrease in water quality and quantity.

A “source –pathway-receptor” approach has been applied for this assessment. The **source** relates to the policy measures outlined in the RSES which have the potential to adversely impact European Sites e.g. infrastructural developments such as new Waste Water Treatment Plants. The **pathways** by which RSES policy measures can impact European Sites include changes in land use, habitat loss/fragmentation, emissions to air and via hydrological connections. The **receptor** in this instance will be the European sites, potentially including those transboundary sites with Northern Ireland for which there is a pathway of connectivity as a result of the implementation of the RSES.

## 2.7 CONSULTATION

### 2.7.1 Screening for AA and SEA Scoping Stage

SEA Scoping was carried out in a coordinated manner for all three RSES’s between December 2017 and February 2018. In line with the SEA Directive (2001/42/EC), specific environmental authorities (statutory consultees) were consulted on the scope and level of detail of the information to be included in the Environmental Report. The Department of Culture, Heritage and the Gaeltacht (DCHG) are one of the statutory consultees for SEA. A summary of the issues raised in the scoping submissions from all statutory consultees [including one from the DCHG dated February 2018] are included in **Appendix A**. Key issues of relevance to the NIR are noted below:

- Relevance of the EPA’s Integrated Biodiversity Impact Assessment (IBIA) Practitioner’s Manual
- Additional suggestions of data sources and guidance documents
- Requirement for assessment of amendments to the draft RSES
- In the context of the MASP, need to consider environmental constraints and challenges in the wider metropolitan areas
- SEOs should refer to international and national environmental objectives.
- Important to understand the objectives, methodologies, parameters, assumptions, etc. of any existing monitoring programme and clarify responsibilities for same
- Plan-level mitigation to amend and be reflected in the content and objectives of the final strategy wherever necessary
- Recognition in the strategy needed for public authorities to take appropriate steps to avoid in European sites the deterioration of natural habitats and the habitats of species, as well as disturbance of species for which a site has been designated insofar as this disturbance could be significant in relation to the objectives of the Habitats Directive.
- General provisions in relation to IBIA, NIR, AA process
- Consider a more coherent protection and enhancement of biodiversity as a whole on a regional and local level,
- Consider need to support national level policies at a regional level to protect and enhance natural heritage assets
- Strategy should include a natural heritage section and refer to all designated sites within or adjoining the Strategy area, which should be listed and mapped; should recognise that protected species also occur outside designated sites and should ensure the protection of such species;

- Should be developed to integrate biodiversity considerations in a positive, proactive and precautionary way; should include provisions to encourage the management of features of the landscape which are of major importance to wild fauna and flora.
- Protection of the physical environment, hydrological processes and biodiversity.
- Transboundary effects

Scoping Consultation was also undertaken with the wider public and these responses have been reviewed and considered in the preparation of the Natura Impact Report.

Further to the statutory SEA scoping consultation, an AA Screening statement was also forwarded directly to the Development Applications Unit in the DCHG, confirming the requirement to proceed to preparation of an NIR. A further submission was received from the DAU in June 2018 referring back to the earlier comments made on SEA scoping in February 2018 which are referenced above and also offering to meet to discuss the draft RSES. This feedback was fully considered in the preparation of the NIR and as relevant by the RSES team.

### 2.7.2 Draft RSES

The Draft RSES along with the SEA Environmental Report and the Natura Impact Report were put on public display on the 5<sup>th</sup> November 2018 until 23<sup>rd</sup> January 2019. In total 316 responses were received on the Draft RSES during this round of consultation. These included submissions from members of the public, government bodies, NGOs, other state bodies/agencies, private companies etc. as well as the statutory consultees [including the DCHG]. A Director's Report on the submissions was prepared for the Elected members of the Assembly by EMRA and presented at the Assembly meeting of the 15<sup>th</sup> February 2019.

A summary of the issues raised in the DCHG submission is presented in **Table 2.1** and other relevant issues raised from other stakeholder responses are presented in **Table 2.2**. It is noted that the response included information relevant to all consultation documents including the SEA Environmental Report, the NIR and the draft RSES. As such, information on how this has been addressed includes reference to more than the NIR.

A meeting was also held with NPWS in March 2019 to discuss the draft RSES. This was also attended by RPS and EMRA. Key issues discussed included:

- Role of the assemblies in terms of future development;
- Strategic nature of the strategy;
- Need for biodiversity to be more visible in the RSES
- Ecological issues with greenways and cycleways;
- Monitoring e.g. one off housing
- Support for ecosystem services approach;
- Pressure on peatlands;
- Need for good signposting to other tiers of planning;
- Need for coordination of local authorities in relation to integrated coastal zone management;
- Green infrastructure and the role in relation to Article 10 of the Habitats Directive;
- Ammonia as increasing pressure on Natura sites; and
- Partnership model.

### 2.7.3 Material Amendments

Following the publication of Director’s Report on the submissions received during consultation on the Draft RSES, the Elected Member of the Assembly then submitted motions for proposed amendments to the draft RSES. At the Assembly meeting of 1<sup>st</sup> March 2019, as required under section 24(8) of the Planning and Development Acts 2000-2018, the members considered the motions, then the Director’s Report and recommendations, except where it was superseded by the agreed motions. At this meeting the members of the Assembly agreed to make the strategy subject to the amendments agreed.

It was deemed that a number of these amendments were material and as such, would require environmental assessment under SEA, AA and RFRA, in order to determine if significant impacts would arise as a result of their inclusion. The amendments were also subject to a further public display period in accordance with the requirements of section 24(8) of the Planning and Development Acts 2000-2018. The material amendments related to the growth and settlement strategy, economy, environment and climate, connectivity, infrastructure, quality of life and placemaking. The resulting *Proposed Material Amendments to the Draft Regional Spatial and Economic Strategy 2019-2030* were put on public display between 15<sup>th</sup> March and 12<sup>th</sup> April 2019 along with an environmental assessment report entitled *Environmental Report* (see Assessment of the Material Amendments and Other Modifications in **Appendix I**).

A total of 106 submissions were received on the material amendments and supporting assessment. A Director’s Report was then prepared in response to the material amendments with the Director’s recommendations i.e. to accept or reject, including any minor modifications. The resulting material amendments and other modifications were also considered in the context of SEA and AA.

As previously, a summary of the issues raised by DCHG submission is presented in **Table 2.3** and other relevant issues raised from other stakeholder responses are presented in **Table 2.4**.

Full details of all submissions made in relation to the drafting of the RSES are included on the EMRA website at <https://emra.ie/>.



**Table 2.1 – Summary of Relevant NIR Comments from DCHG in Relation to the Draft RSES**

Comment	How this has been addressed in the RSES
<p>The department has advised that the RSES should be developed to integrate biodiversity considerations.</p> <p>It should include a high level goal and specific key principle to conserve and restore biodiversity and to make a commitment to biodiversity conservation in general, not just protected sites, habitats and species.</p> <p>It is a concern that biodiversity conservation only comes under the key principle of Climate Action which may undermine its visibility and wider importance.</p> <p>Consider including an RSO in relation to the environment including biodiversity as recommended by the SEA ER.</p> <p>Consider making a clear policy statement in relation to conservation of biodiversity within and beyond protected sites (refer to the National Biodiversity Plan) in addition to RPO 10 and 11.</p> <p>Where ecosystems services mentioned (Chapter 3, Section 7.1, Section 7.3) it would be welcomed to acknowledge that biodiversity underpins ecosystem services to society.</p> <p>The term ‘ecosystems services approach’ should be defined for clarity with reference to biodiversity.</p> <p>Chapter 7 Environment – recommended that the key driver for the chapter includes biodiversity conservation as a key principle.</p> <p>Chapter 10 Infrastructure – recommend that the key driver for the chapter should include the key principle of environmental sustainability generally, and biodiversity</p>	<p>The protection of the Natura 2000 network and the ecological linkages that support it have been given consideration in the RSES document through relevant RPOs, supporting narrative and guiding principles. In particular, Environmental Assessment (RPO’s 3.4 - 3.6), Sustainable Growth (RPO 3.7), Biodiversity and Natural Heritage (RPO Chapter 7), Ecosystem services (RPO 7.21) and Green Infrastructure (RPO’s 7.22 - 7.23).</p> <p>RSO 11 ‘Biodiversity and Natural Heritage’ (aligning with NSO 7 and 8) “promotes co-ordinated spatial planning to conserve and enhance the biodiversity of our protected habitats and species including landscape and heritage protection”. In addition to the RSO, there are a number of key Regional Policy Objectives which give specific support and protection to biodiversity and these are set out in Chapter 7. In particular, RPO 7.16 states: “support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and Local Authority Development Plans.”</p> <p>RPO 7.17 states: “Facilitate cross boundary co-ordination between Local Authorities and the relevant agencies in the Region to provide clear governance arrangements and coordination mechanisms to support the development of ecological networks and enhanced connectivity between protected sites whilst also addressing the need for management of alien invasive species and the conservation of native species.”</p> <p>Further, the RSES has developed suites of Guiding Principles with key environmental considerations at the forefront to improve and protect ecological connectivity (Guiding Principles in the preparation of Green Infrastructure Strategies, Guiding Principles in the consideration of development on peatland areas). RSO 11, its corresponding RPOs and Guiding Principles encapsulates the commitment of the RSES to biodiversity protection in line with international, EU and national policy.</p> <p>The RSES will provide an ecological resource map for the region identifying designated sites.</p>

conservation.

Recommend RPO 7.18 reflects the need to conserve biodiversity in the park while providing for visitor experiences.

Suggest rewording RPO 7.9 to include 'sensitive species'.

The Department welcomes the commitment to integrate an ecosystem services approach and promote GI (RSO 10).

In relation to greenways, blueways and peatways, these are generally welcomed but the Department highlights the importance of defining their primary function (more sustainable movement of people) and secondary benefits, and that they should not be systematically regarded as green infrastructure. They are often located in sensitive areas and the large number of greenway proposals means there is potential for cumulative impacts.

The RSES should consider addressing the potential constraints to development of Athlone's unique position in the landscape and proximity to sites of international conservation importance, as these are not highlighted. RPO 4.7 for instance promotes capitalising on waterway amenity potential and green- blueway development. Athlone's proximity to protected sites and the international importance of the hinterland supporting the Shannon Callows could be further explored in the main body of text and these constraints highlighted.

In the Settlement Strategy for Mullingar and Longford, the proximity of a number of European Sites (interdependent bogs and wetlands with direct hydrological connectivity) is not acknowledged and no proactive mitigation measures have been proposed by the strategy for the significant predicted impact of changes to water quality and movement as noted by the NIR.

The risks to peatlands arising from the RSES has been identified in the NIR but not clearly stated/incorporated into the relevant sections of the document –

The RSES acknowledges that where other strategies and plans undergo review or changes to reflect the national and regional policy objectives and outcomes of both the NPF, and subsequently the RSES, they will consider any relevant environmental requirements. As per the legislation, amendments to county and local area plans on foot of the NPF and RSES will be subject to the SEA and AA processes in due course.

The RSES explicitly states that feasibility studies will be carried out to support decision making in relation to policy base for this RSES and this will include an environmental appraisal which considers the potential effects on the wider environment, including specifically the Natura 2000 Network (Chapter 3 Growth Strategy – Environmental Assessment). The narrative also states that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect. This statement is accompanied by RPO's 3.4 - 3.7 detailing the requirements for environmental assessment of all plans, projects and activities including SEA, EIA and AA as appropriate and that identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.

RPO 4.2 states: *"Infrastructure investment and priorities shall be aligned with the spatial planning strategy of the RSES. All residential and employment developments should be planned on a phased basis in collaboration with infrastructure providers so as to ensure adequate capacity for services (e.g. water supply, wastewater, transport, broadband) is available to match projected demand for services and that the assimilative capacity of the receiving environment is not exceeded."*

The RSES includes an Appendix identifying key aspects of the environmental profile of all the Regional Growth Centres and Key Towns which will inform future decision-making for project/plans.

infrastructure (Chapter 10), sustainable water management (Section 10.2), wastewater and surface water sections.

The RSES should reference the National Raised Bogs SAC Management Plan 2017-2022 and the National Peatlands Strategy.

The tourism policies should clearly recognise the need to protect and restore terrestrial, coastal and marine biodiversity and the natural landscape supporting the sector.

The RSES should set out how tourism sector growth will be accomplished without further biodiversity loss and protecting biodiversity generally (in addition to the Natura 2000 network).

RPO 6.17 in respect of monitoring proposals is welcomed.

RSES should seek to ensure active consideration is given to potential impacts on biodiversity at the earliest stages not just at project level. The strategy should highlight areas where European sites may be affected by future development and include mitigation measures to specifically address these.

The RSOs do not address the important European sites in and around the DMA – recommended that coastal and marine Natura 2000 provisions and conservation of wider marine environment are more explicitly embedded as priority objectives, and the potential for in-combination impacts should be acknowledged.

Recommended that fast-tracking of ICZM is encouraged and for EMRA to consider playing a coordination role given the number of LAs involved.

Provision of water services can have impacts and contingency provision on Natura 2000 sites needs to be carefully assessed. It is important to note the NIR mitigation which states that population growth/service provision needs to be phased to ensure

RPO 3.7 states that *“Local Authorities shall have regard to environmental and sustainability considerations for meeting sustainable development targets and climate action commitments, in accordance with the National Adaptation Framework. In order to recognise the potential for impacts on the environment, Local Authorities shall address the proper site/route selection of any new development and examine environmental constraints including but not limited to biodiversity, flooding, landscape, cultural heritage, material assets, including the capacity of services to serve any new development.”*

In relation to visitor pressure, RPO 6.18 states: *“Support the preparation and implementation of Local Authority Tourism Strategies and Diaspora Strategies. All tourism strategies and plans should include clear monitoring protocols to monitor the ongoing effect of tourism on sensitive features with particular focus on natural and built heritage assets.”*

In terms of water quality RPO 7.11 states: *“For water bodies with ‘high ecological status’ objectives in the Region, Local Authorities shall incorporate measures for both their continued protection and to restore those water bodies that have fallen below high ecological status and are ‘At Risk’ into the development of local planning policy and decision making any measures for the continued protection of areas with high ecological status in the Region and for mitigation of threats to water bodies identified as ‘At Risk’ as part of a catchment-based approach in consultation with the relevant agencies. This shall include recognition of the need to deliver efficient wastewater facilities with sufficient capacity and thus contribute to improved water quality in the Region.”*

In terms of water supply, a new RPO 10.6 states: *“Delivery and phasing of services shall be subject to the required appraisal, planning and environmental assessment processes and shall avoid adverse impacts on the integrity of the Natura 2000 network.”*

A new RPO states 10.7: *“Local Authority Core Strategies shall demonstrate compliance with DHPLG Water Services Guidelines for Planning Authorities and demonstrate phased infrastructure led growth to meet demands on the water supply, suitability of new and/or existing drinking water sources (for example hydromorphological*

protection of the environment.

Welcomed inclusion of supporting a feasibility studies in relation to port development and carrying capacities.

The RSES should set a good example of best practice regarding future growth; the main tools for this are SEA, AA, EIA and EclA. To support the evidence-based approach advocated by the RSES, the region's resources (administrative, economic, responsibilities etc.) should be clearly identified and to set out the detail of any region-wide policies and collaborations necessary to ensure environmental data collection and sharing are integrated into the RSES.

The Department supports the development of an ecological resource map for the region as recommended in the NIR and also adds that there is much ongoing work by the Department in this area at national level. It Priority should be given to habitat mapping in the coastal zone of the DMA. A repository of NIS/NIR documents to feed into the data sharing would also be welcome and support the development of a regional ecosystem services map.

*pressures) and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network."*

A new guiding principle has been added under Integration of Land Use and Transport as follows: *"Ensure the protection of Natura 2000 networks and associated ecological linkages. Plans and projects that have the potential to negatively impact on Natura 2000 sites should be subject to the requirement of the Habitats Directive."*

**Table 2.2 – Summary of Relevant NIR Comments from Other Stakeholders in Relation to the Draft RSES**

Comment	How this has been addressed in the RSES
<p>Specific mitigation measures and recommendations from the SEA and NIR should be reflected in the RSES, and where not included in the final RSES, appropriate justification should be given.</p> <p>Acknowledgement of the recommendation that tourism initiatives should consider the requirements of the SEA and Habitats Directives respectively.</p> <p>Support for the recommendation to prepare management plans for the Wicklow and Slieve Bloom Mountains, to assist in managing tourism (and recreation / amenity) activity in these sensitive areas, over the lifetime of the RSES. The requirements of the SEA and Habitats Directives should be taken into account, as appropriate.</p> <p>Proposed new RPO above 4.43 and new RPO above RPO 4.46 - support the recommended wording changes to reflect the need to protect designated sites. Where 'international nature conservation interests' relate to European sites designated under the Habitats Directive, this should be clarified, with a view to ensuring that the relevant requirements are fully integrated.</p> <p>No baseline of the condition or conservation status for each of the Natura Sites in the EMRA is provided to allow actions to be measured against the baseline.</p> <p>The importance of ex-situ habitats supporting Brent geese is noted to be mentioned in the NIR in relation to the MetroLink but not elsewhere; a conservation plan is stated to be needed for this species and ex-situ sites with relevant objectives in CDPs. The RSES and associate documents should address this issue and support conservation of the species.</p> <p>The NIR requires that the guiding principles for integration of transport planning and land use planning should explicitly reference the protection of the Natura 2000</p>	<p>The RSES is noted to be a strategic planning document focused in the first instance at the regional level. All plans are subject to AA when prepared. This will ensure avoidance of adverse effects in the first instance and mitigation measures if required. Any mitigation measures arising from the AA of these plans must be carried through to project stage. The narrative states that at the project consent stage, if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated, then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect. This statement is accompanied by RPO 3.4 and 3.5 detailing the requirements for environmental assessment of all plans, projects and activities including SEA, EIA and AA as appropriate and that identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.</p> <p>See Chapter 9 of this NIR and also the SEA Statement [under separate cover] for details on how mitigation has been applied.</p> <p>RPO 3.4 was modified with additional wording that applies throughout the document to state that: ... <i>In addition, the future strategic development of settlements throughout the Region will have full cognisance of the legal requirements pertaining to sites of International Nature Conservation Interest.</i></p> <p>The RSES includes an Appendix identifying key aspects of the environmental profile of all the Regional Growth Centres and Key Towns which will inform future decision-making for project/plans.</p> <p>Appendix G of the NIR sets out a summary of the conservation status of each habitat and species from both 2007 and 2013 as reported by NPWS. This information has fed</p>

Comment	How this has been addressed in the RSES
<p>networks and the ecological linkages which support it.</p> <p>Coastal erosion has not been specifically referenced by the SEA ER or the NIR. The Natura 2000 impact report should include the potential impact of predicted development along the coast and how this will impact coastal change in relation to habitat loss.</p> <p>Ensure the protection of Natura 2000 networks and associated ecological linkages. Plans and projects that have the potential to negatively impact on Natura 2000 sites should be subject to the requirements of the Habitats Directive.’</p> <p>RPO 7.20 should state that it will be done in cooperation with the Dublin Bay UNESCO Biosphere Partnership</p> <p>In the interest of clarity and consistent application of policy across the Region, reference to ‘taking account of the proximity of sites of international nature conservation interest’ be omitted from the place based specific text and replaced by an overall general objective, applicable to all locations, which requires that all future strategic development within the administrative area of the RSES takes account of the proximity of sites of international nature conservation interest.</p> <p>The NIR should refer to the status of habitats and species in Northern Ireland.</p> <p>The NIR does not consider the potential impacts of reduced water quality and port growth on Natura 2000 sites in NI.</p> <p>No mention of invasive species in the NIR in relation to port growth but they are mentioned in the SEA.</p>	<p>into the assessment.</p> <p>RPO 8.24 states that EMRA supports the undertaking of feasibility studies to determine the carrying capacity of ports in relation to potential for likely significant effects on associated European sites including SPAs and SACs.</p> <p>The importance of ex-situ habitats for protected species is noted in chapter 6 of the NIR and it is accepted that it could apply to any and all protected habitats and species in terms of supporting function. Policies such as RPO 3.4 and RPO 7.16 require application of AA through the planning hierarchy in response to the greater levels of detail available as plans and projects evolve. This is in line with the mitigation strategy outlined in Chapter 9 of this NIR.</p> <p>Additional text relating to Natura 2000 has been added to the guiding Principles for integrated land use.</p> <p>It is noted that the RSES includes RPO 7.3 as follows: EMRA will support the use of Integrated Coastal Zone Management (ICZM) to enable collaborative and stakeholder engagement approaches to the management and protection of coastal resources against coastal erosion, flooding and other threats. Furthermore, following meetings with NPWS, the ICZM aspect will be prioritised given the pressures. Additional text included for RPO 7.4 in relation to coastal squeeze and erosion: <i>Statutory land use plans shall take account of the risk of coastal erosion, whereby new development should be avoided in areas at risk of coastal erosion to the greatest extent practicable.</i></p> <p>RPS 7.20 has been amended to ensure cooperation on the UNESCO site around the development of improved visitor experiences, nature conservation and sustainable development activities.</p> <p>RPO 3.4 has been amended to reflect the need for consistent application of policy across the region as follows: <i>Ensure that all plans, projects and activities requiring consent arising from the Regional Spatial and Economic Strategy are subject to the</i></p>

Comment	How this has been addressed in the RSES
	<p><i>relevant environmental assessment requirements including SEA, EIA and AA as appropriate. In addition, the future strategic development of settlements throughout the Region will have full cognisance of the legal requirements pertaining to sites of International Nature Conservation Interest.</i></p> <p>The following is referenced in the assessment of ports in the NIR: Direct and indirect disturbance to QI/SCI habitats and/or species of European Sites from commercial shipping and associated noise and disturbance spread of invasive species. The assessment is not specific to any one site but rather assesses the potential impacts on QIs and SCIs.</p> <p>Clarifications added to water quality in NIR Chapter 7.</p>

**Table 2.3 – Summary of Relevant NIR Comments from DCHG Arising from Proposed Material Amendments**

Comment	How this has been addressed in the RSES
<p>The environmental report identifies consequences of the proposed material amendments to RPOs in the Draft RSES. The Department recommends the implementation in full of the recommendations in this report.</p> <p>Material amendments have also been made to the other areas of the Draft RSES and the impacts of these material amendments on the environment must also be assessed in full.</p> <p>In particular, ‘Diversification and specialisation of local economies including sustainable farming and food production, tourism, marine, energy and renewables, bio economy and circular economy, with a focus on publicly owned peatlands in the midlands, to support a managed transition and realise the benefits of green technologies.’ This should be subject to assessment and cumulative impacts considered. General principle NPS2 should take the above into account in its analysis of peatland uses.</p> <p>Corridors of suitable peatland habitat may need to be established.</p> <p>The above Growth Enabler must also be examined for compatibility with Art. 10 of the Habitats Directive.</p> <p>Proposed new RPO for Graiguecullen-Carlow ‘Support development of underused lands along the River Barrow.’ - the Department supports the recommendation in the Environmental Reports that this RPO not be included in the RSES.</p> <p>Section 5.8 Item 76. New Guiding Principles for the location of strategic employment - recommend the following amendment: ‘Suitable locations (depending on the extent to which an enterprise is people or space intensive or subject to environment constraints).’</p>	<p>The consequences of all material amendments have been considered as part of the NIR; the assessment is reported in Chapter 8 of the NIR for the RSES and with reference to Appendix I of the NIR.</p> <p>Growth Enabler: Accepted amended Growth Enablers for the gateway Region with minor modifications; last bullet reads: ‘Promote the region as a key destination for tourism, leisure and recreation activities and support the development of an integrated network of greenways, blueways and peatways while ensuring that high value assets and amenities are protected and enhanced.’</p> <p>New RPO Graiguecullen-Carlow: The concern raised as part of the accompanying SEA is fully recognised and it is considered that the wording of the material amendment as proposed is inappropriate and falls short of that required to ensure compliance with the relevant environmental and flood risk legislation. Amendment is accepted with minor modification: ‘Support the sustainable development of environmentally sensitive, low intensity amenity development associated with the Barrow Blueway subject to compliance with the Habitats and Birds Directive and Floods Directive.’</p> <p>Section 5.8 new Guiding Principle: Suggested addition of environmental constraints accepted.</p> <p>RPO 6.16: Accept the proposed amendment with suggested minor modification: ‘Support the maintenance of, and enhanced access to state and semi-state lands such as National Parks, Forest Parks, Waterways, etc., together with Monuments and Historic Properties, for recreation and tourism purposes. Access should be planned and managed in a sustainable manner that protects environmental sensitivities, ecological corridors, and the ability of local infrastructure to support increased tourism.’</p> <p>Section 7.6: The final document includes existing national greenways listed first and an asterisk and footnote to indicate the greenways that are proposed to be developed or</p>



Comment	How this has been addressed in the RSES
<p>Amend RPO 6.16 – Natural and Cultural Tourism Assets in bold: ‘Support the maintenance of, and enhanced access to state lands such as National Parks, Forest Parks, Waterways, etc., together with Monuments and Historic Properties, for recreation and tourism purposes. Access should be planned and managed in a sustainable manner...’</p> <p>Section 7.6 Green and Blue Infrastructure: The inclusion of a number of these proposed greenways as Heritage Assets may be premature and misleading given that they have yet to go through the planning process including associated environmental assessments. Suggested that such proposed, and not yet existing greenways, are clearly demarcated as such.</p>	<p>under development.</p>

**Table 2.4 – Summary of Relevant NIR Comments from Other Stakeholders Arising from Proposed Material Amendments**

Comment	How this has been addressed in the RSES
<p>DAERA Marine and Fisheries Division suggested the inclusion of cross-border coordination for management of alien invasive species and conservation of native species under Section 7.17: “Facilitate cross boundary (and cross-border?) co-ordination</p> <p>The NIR requires that the guiding principles for integration of transport planning and land use planning should explicitly reference the protection of the Natura 2000 networks and the ecological linkages which support it.</p> <p>A submission suggested the proposed new RPO in relation to Water Supply could be simplified to: ‘Local Authority Core Strategies shall demonstrate compliance with DHPLG Water Services Guidelines for Local Authorities and provide for phased infrastructure – led growth that is commensurate with the carrying capacity of water services in order to protect the environment and designated European Networks.’</p> <p>A submission stated that the sentiment of the new RPO for Mullingar is welcomed, however, concern is indicated with regard to the inclusion of this RPO as a location based specific policy and it is suggested that this be better served as a general objective relating to the entirety of the document or omitted.</p>	<p>Invasive alien species are referenced throughout section 7.5 of the RSES, RPO 7.17 highlights the need for management of invasive alien species.</p> <p>To address these concerns, additional points were added to the Guiding Principles for Integration of Land Use and Transport, which are aligned with the other policy areas in climate in the RSES. These new guiding principles will satisfy environmental protection requirements and in relation to promoting sustainable transport modes within towns and the assessment of the impact on reaching carbon reduction targets. A new Guiding Principle specifies: <i>Ensure the protection of Natura 2000 networks and associated ecological linkages. Plans and projects that have the potential to negatively impact on Natura 2000 sites should be subject to the requirements of the Habitats Directive.</i></p> <p>In relation to the new RPO for Water Supply, the proposed material amendment was accepted with minor modification to read as follows as RPO 10.7: <i>Local Authority Core Strategies shall demonstrate compliance with DHPLG Water Services Guidelines for Local Authorities and demonstrate phased infrastructure – led growth that is commensurate with the carrying capacity of water services and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network.</i></p> <p>In the interest of clarity and consistent application of policy across the Region, reference to ‘taking account of the proximity of sites of international nature conservation interest’ was omitted from the place based specific text and replaced by an overall general objective, applicable to all locations, which requires that all future strategic development within the administrative area of the RSES takes account of the proximity of sites of international nature conservation interest. On foot of the above proposal and to ensure consistency throughout the document, policy RPO 3.4 was modified to take account of the above change that is to be applied throughout the document and additional wording added to state that: <i>Ensure that all plans, projects and activities requiring consent arising from the Regional Spatial and Economic Strategy are subject to the relevant environmental assessment requirements including SEA, EIA and AA as appropriate. In addition the future strategic development of</i></p>

Comment	How this has been addressed in the RSES
	<i>settlements throughout the Region will have full cognisance of the legal requirements pertaining to sites of International Nature Conservation Interest.</i>

### 3 EASTERN AND MIDLAND RSES

#### 3.1 INTRODUCTION

One of the principle functions of the Eastern and Midland RSES will be to practically support and advance the delivery of the national policy objectives contained in the NPF. The EMRA will bring forward the NPF in a manner which best reflects the challenges and opportunities of the region. It has been anticipated by the NPF that each of the three regional assemblies will begin to fill out the national policy objectives, in some cases giving them geographic or temporal context and in other cases elaborating on project concepts. The Eastern and Midland RSES will support the delivery of the NPF removing the top-down perception and replacing it with a shared responsibility and understanding.

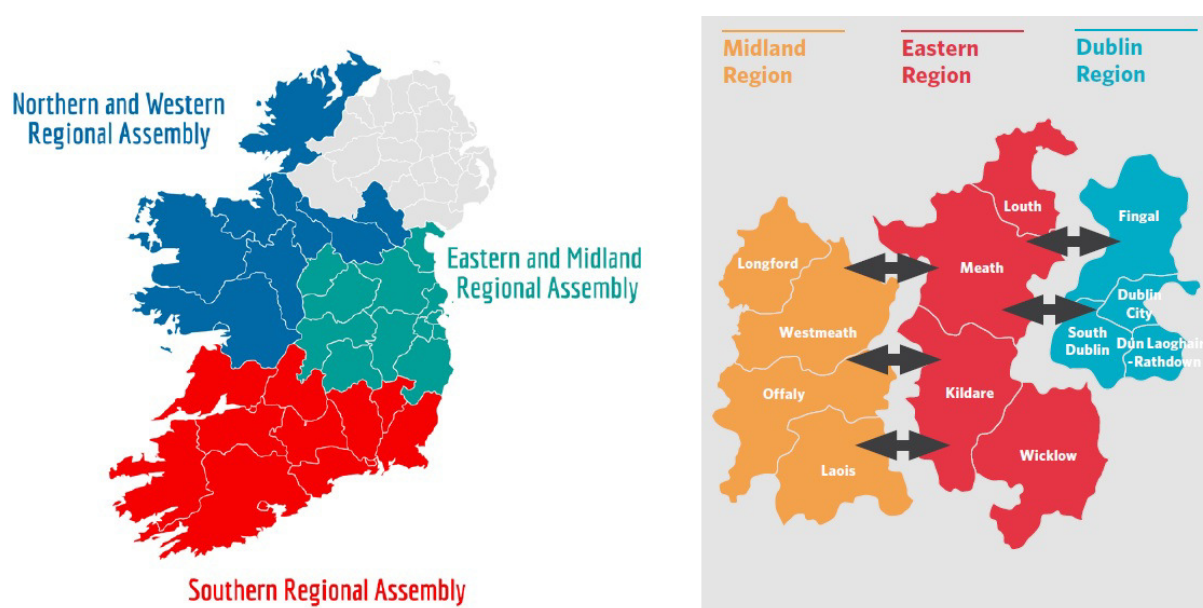


Figure 3-1 – Regional Assemblies and the Eastern and Midland Region<sup>2</sup>

#### 3.2 STRATEGIC VISION FOR THE EASTERN AND MIDLAND REGION

The vision statement for the Eastern and Midlands RSES is:

*“To create a sustainable and competitive region that supports the health and wellbeing of our people and places, from urban to rural, and ensures access to affordable housing, travel and employment opportunities for all.”*

The place or environment in which people live or work has a profound impact on the health of people. The region contains some of the fastest growing communities in the country and the long-term trend is for residential development moving further outwards from Dublin, with significant growth in many of the small towns and villages in the peri-urban area surrounding the city leading to an increase in car-based long-distance commuting. At the same time an overall lack of adequate housing supply to meet a growing population has resulted in affordability issues and increasing homelessness, with a resulting negative impact on quality of life and regional competitiveness.

<sup>2</sup> EMRA (November 2017) Consultation Issues Paper

One of the key challenges facing the region is the need for better alignment between population growth, location of residential development and employment to create healthy and attractive places, and this is reflected in the Vision Statement, which was developed in collaboration with elected member and regional stakeholders.

The Eastern and Midlands RSES is underpinned by key cross-cutting principles that broadly reflect sustainability and are expressed in a manner which best reflects the challenges and opportunities of the region through three key principles:

### **1. Healthy Place making**

To promote people's quality of life through the creation of healthy and attractive places to live, work, visit and study in.

### **2. Climate Action**

The need to enhance our natural capital and climate resilience and to accelerate a transition to a low carbon economy

### **3. Economic Opportunity**

To create the right conditions and opportunities for the region to realise sustained economic growth and employment that ensures good living standards for all

## **3.3 KEY ASPECTS OF THE DRAFT EM RSES**

The Eastern and Midland RSES seeks to determine at regional scale how best to achieve the shared goals set out in the National Strategic Outcomes (NSOs) of the NPF. To this end, the draft Strategy sets out 16 Regional Strategic Outcomes (RSOs), which are aligned with international, EU and national policy and which in turn set the framework for City and County Development Plans. The RSES can assist Local Authorities in aligning with EU priorities to leverage funding and partnership opportunities. The 16 RSO are:

The 16 RSO's are also cross referenced and aligned with the key cross-cutting principles of the RSES and have been developed in iteration with the SEA:

- 1. Sustainable Settlement Patterns:** Better manage the sustainable and compact growth of Dublin as a city of international scale and develop Athlone, Dundalk-Drogheda and a number of key complementary growth settlements of sufficient scale to be drivers of regional growth.
- 2. Compact Growth And Urban Regeneration:** Promote the regeneration of our cities, towns and villages by making better use of under-used land and buildings within the existing built-up urban footprint and to drive the delivery of quality housing and employment choice for the region's citizens.
- 3. Rural Communities:** Support sustainable rural development and strengthen rural networks, economies and communities. Manage urban generated growth in areas under strong urban influence and encourage sustainable growth in areas that have experienced decline or stagnation

- 4. Healthy Communities:** Protect and enhance the quality of our built and natural environment to support active lifestyles including walking and cycling, ensure clean air and water for all and quality healthcare and services that support human health.
- 5. Creative Places:** Enhance, integrate and protect our arts, culture and heritage assets to promote creative places and heritage led regeneration.
- 6. Integrated Transport and Land Use:** Promote best use of Transport Infrastructure, existing and planned and promote sustainable and active modes of travel to ensure the proper integration of transportation and land use planning.
- 7. Sustainable Management of Water, Waste and Other Environmental Resources:** Conserve and enhance our water resources to ensure clean water supply, adequate waste water treatment and greater resource efficiency to realise the benefits of the circular economy.
- 8. Build Climate Resilience:** Ensure the long-term management of flood risk and build resilience to increased risks of extreme weather events, changes in sea level and patterns of coastal erosion to protect property, critical infrastructure and food security in the region.
- 9. Support the Transition to Low Carbon and Clean Energy:** Support national policy targets for climate mitigation and harness the potential for a more distributed renewables-focussed energy system to support the transition to a low carbon economy by 2050.
- 10. Enhanced Green Infrastructure:** Identify, protect and enhance Green Infrastructure and ecosystem services in the region and promote the sustainable management of strategic natural assets such as our farmlands, peatlands, woodlands and wetlands.
- 11. Biodiversity and Natural Heritage:** Promote co-ordinated spatial planning to conserve and enhance the biodiversity of our protected habitats and species including landscape and heritage protection.
- 12. A Strong Economy supported by Enterprise and Innovation:** To build a resilient economic base and promote innovation and entrepreneurship ecosystems that support smart specialisation, cluster development and sustained economic growth.
- 13. Improve Education Skills and Social Inclusion:** To improve education and develop the right skills to attract employers and retain talent and promote social inclusion to ensure opportunities for quality jobs across the region.
- 14. Gateway Region:** Promote Dublin as a global city region and protect and enhance international connectivity, including ports and airports and promote the region as a gateway to Ireland.
- 15. Enhanced Regional Connectivity:** Protect and enhance international connectivity and regional accessibility to support economic development, build economic resilience and support strengthened rural communities and economies including the blue-green economy and tourism.
- 16. Collaboration Platform:** Provide a regional framework for collaboration and partnerships and to support local and regional bodies in leveraging funding and partnership opportunities.

The RSO are supported by a clear regional policy objective (RPO) base covering the following key areas:

- Growth Strategy;
- People and Place;
- Dublin MASP;
- Economy and Employment;
- Environment and Climate;
- Connectivity;

- Quality of Life;
- Infrastructure;
- All Island Cohesion; and
- Implementation and Monitoring

The SEA, AA and FRA processes which have been ongoing as part of the development of the EM\_RSES have resulted in a number of environmental protection policies of relevance being integrated into the final draft of the plan. These include but are not limited to:

**RSO 11** which promotes co-ordinated spatial planning to conserve and enhance the biodiversity of our protected habitats and species including landscape and heritage protection.

**RPO 3.4** which states: *Ensure that all plans, projects and activities requiring consent arising from the Regional Spatial and Economic Strategy are subject to the relevant environmental assessment requirements including SEA, EIA and AA as appropriate. In addition, the future strategic development of settlements throughout the Region will have full cognisance of the legal requirements pertaining to sites of International Nature Conservation Interest.*

**RPO 3.5** which states: *Identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.*

**RPO 4.2** which states: *Infrastructure investment and priorities shall be aligned with the spatial planning strategy of the draft RSES. All residential and employment developments should be planned on a phased basis in collaboration with infrastructure providers so as to ensure adequate capacity for services (e.g. water supply, wastewater, transport, broadband) is available to match projected demand for services and that the assimilative capacity of the receiving environment is not exceeded.*

**RPO 3.7** which states: *Local Authorities shall have regard to environmental and sustainability considerations for meeting sustainable development targets and climate action commitments, in accordance with the National Adaptation Framework. In order to recognise the potential for impacts on the environment, Local Authorities shall address the proper site/route selection of any new development and examine environmental constraints including but not limited to biodiversity, flooding, landscape, cultural heritage, material assets, including the capacity of services to serve any new development.*

**RPO 7.10** which states: *Support the implementation of the Water Framework Directive in achieving and maintaining at least good environmental status for all water bodies in the Region and to ensure alignment between the core objectives of the Water Framework Directive and other relevant Directives, River Basin Management plans and Local Authority land use Plans.*

**RPO 7.16** which states: *Support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and Local Authority Development Plans.*

**RPO 7.17** which states: *Facilitate cross boundary co-ordination between Local Authorities and the relevant agencies in the Region to provide clear governance arrangements and coordination*

*mechanisms to support the development of ecological networks and enhanced connectivity between protected sites whilst also addressing the need for management of alien invasive species and the conservation of native species.*

**RSO 7.21** which states: *Local Authorities shall promote an Ecosystems Services Approach in the preparation of statutory land use plans.*

In addition to specific RSO/ RPO's, the RSES recognises that where other strategies and plans undergo review or changes to reflect the national and regional policy objectives and outcomes of both the NPF, and subsequently the RSES, they must also consider any relevant environmental requirements.

The RSES explicitly states that feasibility studies will be carried out to support decision making in relation to policy base for this RSES and this will include an environmental appraisal which considers the potential effects on the wider environment, including specifically the Natura 2000 Network (See Chapter 3 Growth Strategy - Assessment of Possible Impacts – Environmental Assessment).

The narrative explicitly states that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.

Further, the RSES also includes an Appendix identifying key aspects of the environmental profile of the Regional Growth Centres and Key Towns to inform future decision-making for project/plans.

A suite of Guiding Principles in the RSES further aid plan preparation and decision making in the region. With respect to Core Strategies Local Authorities are required to have due regard to the settlement typology of towns in the region and carefully consider the phasing of development lands to ensure that towns grow at a sustainable level appropriate to their position in the hierarchy.



## 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 Biodiversity Plan (DCHG, 2017) to address issues and halt the loss of biodiversity, in line with international commitments. The overall vision in the National Biodiversity Plan is that *“biodiversity and ecosystems in Ireland are conserved and restored, delivering benefits essential for all sectors of society and that Ireland contributes to efforts to halt the loss of biodiversity and the degradation of ecosystems in the EU and globally.”* The NBP includes seven headline objectives cross referenced as appropriate to both the relevant Aichi Biodiversity targets and also the UN sustainability goals. Objective 6 specifically addresses the Natura 2000 network. It states: *Expand and improve management of protected areas and species.* The three related sub-objectives are:

- Natura 2000 network designated and under effective conservation management by 2020;
- Sufficiency, coherence, connectivity, and resilience of the protected areas network substantially enhanced by 2020; and
- No protected species in worsening status by 2020; majority species in, or moving towards, favourable status by 2020.

### 4.1 IDENTIFICATION OF EUROPEAN SITES

The DEHLG (2009 rev. 2010) 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 RSES includes a broad policy base, many of which do not detail geographic specificity for the implementation of the RSES measures, so it must be assumed that these measures could be implemented anywhere within the Eastern and Midlands Region. The Zoi of the RSES is therefore considered to include all European Sites within the Eastern and Midlands Region and considers transboundary impacts to SACs and SPAs with direct connectivity e.g. rivers flowing into or out of the EMR. This is primarily due to the need to consider all hydrological and hydrogeologically connected European Sites due to the potential for significant impacts on water quality. Therefore, the Zoi for this project includes all of the hydrologically connected surface water subcatchments and groundwater bodies.

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 (with a further 6 offshore sites) have been designated covering 58 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. Of the 58 habitats, 44 are considered to be water dependent habitats, and 22 species are considered to be water dependent. 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 Lesser Horseshoe bats, Otter (*Lutra lutra*), Freshwater pearl mussel (*Margaritifera margaritifera*), among others. There are 82 SACs within the EMR.

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. There are 39 SPAs within the EMR.<sup>3</sup>

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 RSES. There may be scientifically appropriate reasons for extending the ZoI further depending on pathways for potential impacts. 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 how they may be connected to and subsequently impacted by the RSES through abiotic and biotic vectors. To this end, the ZoI extends to European Sites to include ecological receptors connected to the RSES through overlap / intersection, proximity and connectivity through features such as surface water and groundwater interactions. As the objectives give rise to more concrete plans and projects down through the planning hierarchy, the site specific conservation objectives (SSCO) 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 informed by the RSES.

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<sup>3</sup>All SAC and SPA numbers are downloaded from NPWS datasets as of [January 2019](#).

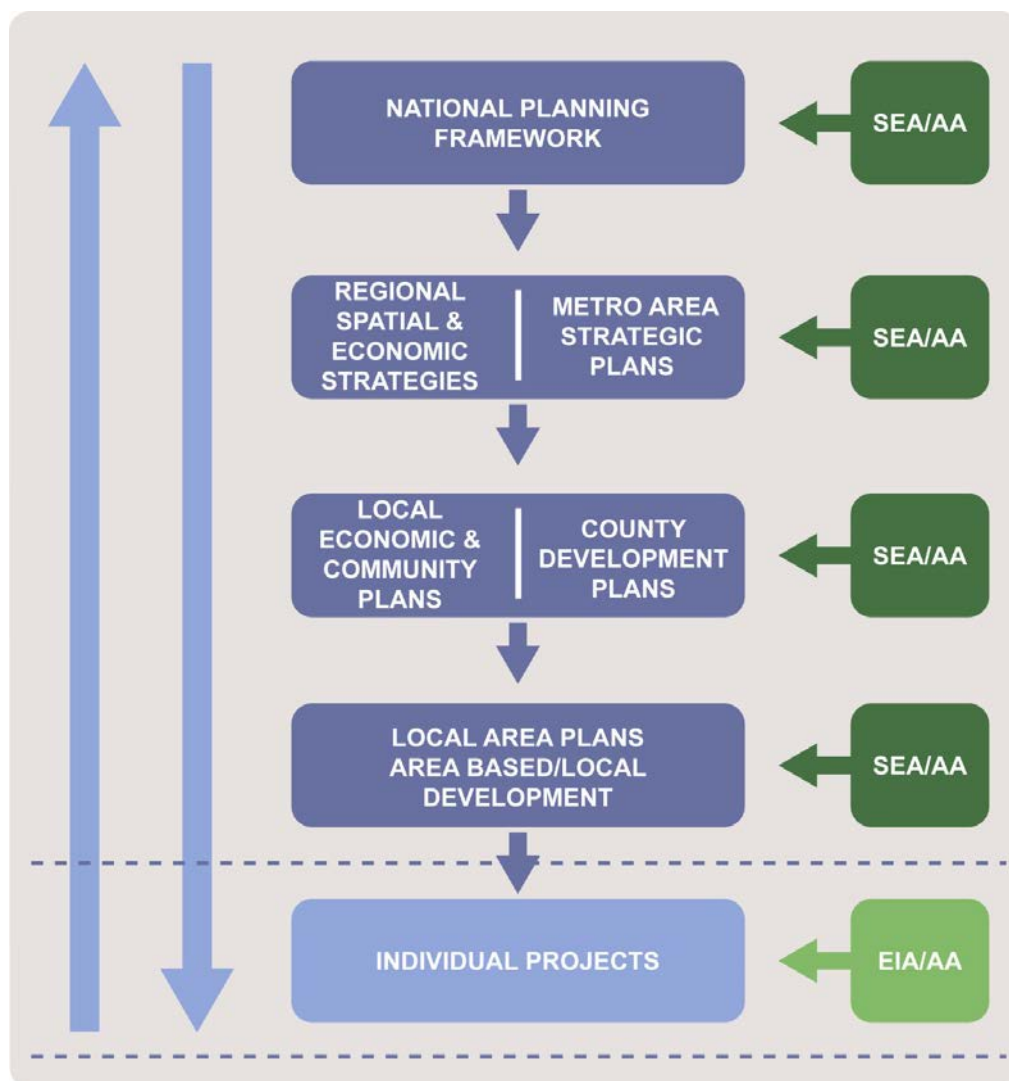


Figure 4-1 – AA within the Planning Hierarchy of the RSES

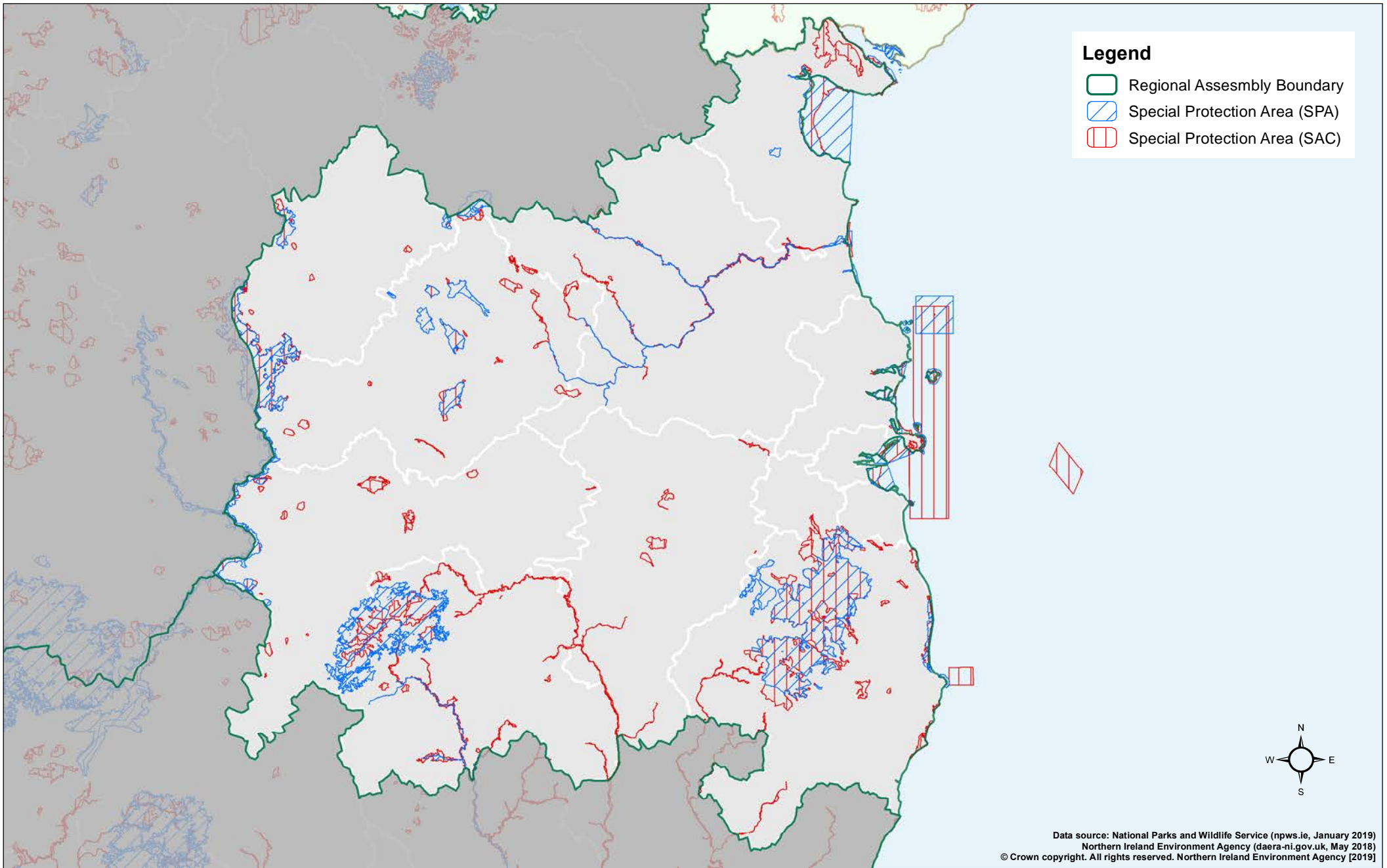
A breakdown of the European Sites within the EMR is presented in **Table 4.1**. In addition the European sites within the other regional authority areas which border the EMR and Northern Ireland are summarised. **Figure 4-2** shows the distribution of the SACs and SPAs within the EMR. A full listing of the European Sites is included in **Appendix B** and **Appendix C**. It is acknowledged that the number of European Sites designated, and their boundaries, are subject to change over time and must therefore be verified on an ongoing basis.

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

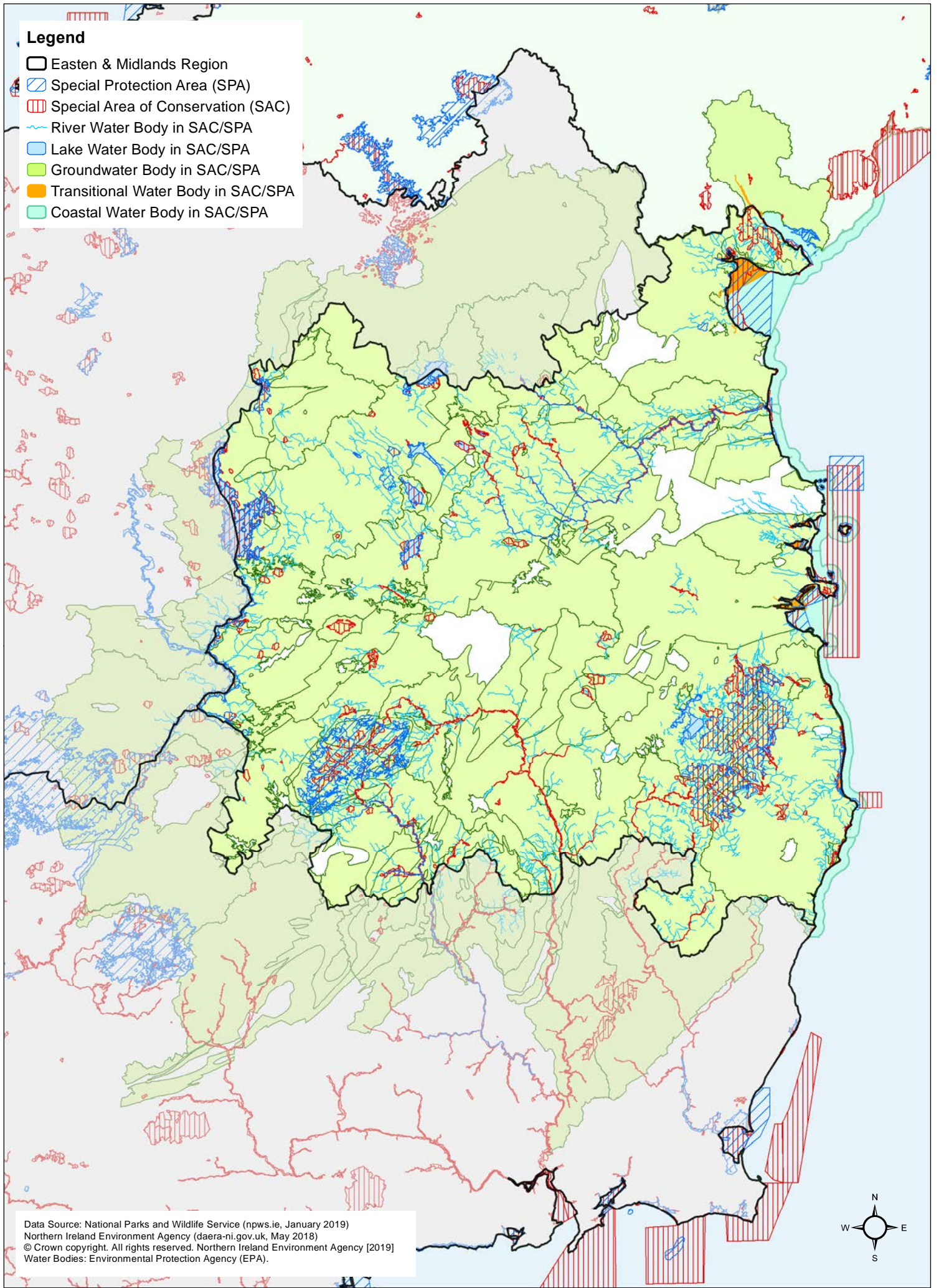
European Sites*	Eastern and Midland	Northern and Western	Southern
SAC	86	217	145
SPA	39	82	55

\* NPWS data revision as of January 2019.

It is acknowledged that European sites which are within or partially within EMRA may originate in one of the other regions, especially where there may be surface or groundwater connectivity upstream. To consider this further, **Figure 4-3** shows the water connectivity between the three regions. This will be considered during the assessment process for all three regions.

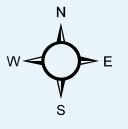


**Figure 4-2 – European Sites in the Eastern and Midland Region**



- Legend**
- Eastern & Midlands Region
  - ▨ Special Protection Area (SPA)
  - ▨ Special Area of Conservation (SAC)
  - River Water Body in SAC/SPA
  - Lake Water Body in SAC/SPA
  - Groundwater Body in SAC/SPA
  - Transitional Water Body in SAC/SPA
  - Coastal Water Body in SAC/SPA

Data Source: National Parks and Wildlife Service (npws.ie, January 2019)  
 Northern Ireland Environment Agency (daera-ni.gov.uk, May 2018)  
 © Crown copyright. All rights reserved. Northern Ireland Environment Agency [2019]  
 Water Bodies: Environmental Protection Agency (EPA).



**Figure 4-3 – European Sites and Hydrological Connectivity**

## 4.2 CONSERVATION OBJECTIVES

The Habitats Directive requires an Appropriate Assessment to be carried out in *view of the site's conservation objectives*. The Conservation Objectives (COs)<sup>4</sup> for European Sites are set out to ensure that the Qualifying Interests (QIs)/ Special Conservation Interests (SCIs) for which an SAC or SPA has been designated are maintained or restored to a favourable conservation condition. 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.

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<sup>4</sup> [https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/)

At an individual site level, SSCOs specify whether the objective is to maintain or to restore favourable conservation condition of the habitat or species, and they set out attributes and targets that define the objectives. It is the aim of the DCHG to produce SSCOs for all European sites in due course. A full listing of the COs and QIs/ SCIs for each European Site, 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](http://www.npws.ie).

It is noted that the existing conservation condition of some habitats and species is unfavourable at present for various reasons, including because of exceedance in environmental quality parameters. This is discussed further in the next section.

### 4.3 CONSERVATION STATUS OF EU PROTECTED HABITATS AND SPECIES

In 2007 and again in 2013, NPWS published a report detailing the conservation status in Ireland of habitats and species listed in the EU Habitats Directive (92/43/EEC), referred to as the Article 17 Report<sup>5</sup>. 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.

For the 2013 submission, Ireland's Article 17 Report recorded 9% of habitats were assessed as "favourable", 50% as "inadequate" and 41% as "bad". Among the key findings were:

- Many Irish habitats are in unfavourable status and many are still declining albeit with some positive actions underway;
- The main pressures to habitats are from grazing; pollution of watercourses; drainage / cutting of peatlands and wetlands; invasive species; recreation; urbanisation; fertilizer application; and road building among others;
- 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.

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<sup>5</sup> The Status of EU Protected Habitats and Species in Ireland, NPWS 2007 (Vol 1-3) and 2013 (Vol 1 -3)

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 killarvensis*) 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)*<sup>6</sup> covers 196 species which includes breeding, wintering and passage species. 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.

#### 4.3.1 Other Issues of Note

Article 10 of the Habitats Directive addresses stepping stones and ecological corridors including nature conservation sites (other than European sites), habitat areas and species’ locations which although not directly addressed within Art 6(3) they may have relevance to the structure and function of European sites. This issue has been considered in the NIR and specific issues in the context of wider biodiversity are dealt with in the SEA Environmental Report.

## 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”<sup>7</sup>.

Threats and pressures considered to be most relevant and linked either directly or indirectly to the RSES were extracted from the full list of threats and pressures<sup>8</sup>.

<sup>6</sup> [http://ec.europa.eu/environment/nature/knowledge/rep\\_birds/index\\_en.htm](http://ec.europa.eu/environment/nature/knowledge/rep_birds/index_en.htm) (Accessed September 2016)

<sup>7</sup> 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](http://bd.eionet.europa.eu/activities/Reporting/Article_17/reference_portal)

<sup>8</sup> 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](http://bd.eionet.europa.eu/activities/Reporting/Article_17/reference_portal)



The headline categories considered relevant to the RSES 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;
- Biological resource other than agriculture & forestry;
- Transportation and service infrastructure;
- Urbanisation, residential and commercial development;
- Disturbance due to human activities;
- Pollution;
- Invasive and introduced species;
- Modification of natural conditions; and
- Climate change.

A general lack of environmental awareness, especially regarding ecosystem services was cited by the EPA in the 2012 State of the Environment Report as a pressure on national biodiversity. In their updated 2016 report<sup>9</sup>, the future challenges for biodiversity were cited as:

- Land use changes and the planned intensification of agriculture may lead to further habitat loss;
- Climate change is intensifying and the current underlying issues will persist;
- The mainstreaming of biodiversity into economic and development decisions would be of benefit to nature protection;
- There is room for improved co-ordination on nature issues across linked directives and regulatory bodies;
- Robust baseline monitoring systems and comprehensive services mapping systems are needed to highlight and protect nature in Ireland, and
- Increased public awareness is vital.

An updated National Biodiversity Action Plan 2017-2021 was published in May 2017. It lists seven key objectives as follows:

1. Mainstream biodiversity into decision-making across all sectors.
2. Strengthen the knowledge base for conservation, management and sustainable use of biodiversity.
3. Increase awareness and appreciation of biodiversity and ecosystems services.
4. Conserve and restore biodiversity and ecosystem services in the wider countryside.
5. Conserve and restore biodiversity and ecosystem services in the marine environment.
6. Expand and improve management of protected areas and species.
7. Strengthen international governance for biodiversity and ecosystem services.

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<sup>9</sup> [http://www.epa.ie/media/Chapter4\\_Nature.pdf](http://www.epa.ie/media/Chapter4_Nature.pdf)

The Regional Spatial and Economic Strategy has a significant role to play in achieving these seven objectives, together with others policy documents such as the Climate Mitigation Plan, the River Basin Management Plan and the National Planning Framework.

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/ 2017-2021 (Target 3).

## 5 STAGE 1 SCREENING FOR AA

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 RSES. The Screening for AA assessed in view of best scientific knowledge whether the Draft RSES, individually or in combination with other plans and projects, is likely to have a significant effect on any European Site.

### 5.1 POTENTIAL FOR LIKELY SIGNIFICANT EFFECTS

The Screening for AA was undertaken before the detailed policy objectives were developed and therefore the potential likely significant effects were largely unknown, therefore the Screening for AA was undertaken in a strategic manner with cognisance of the precautionary principle. Given the strategic nature of the plan, the current stage of preparation; the range of potential policy objectives that could have been utilised in the RSES once drafted, e.g. potentially including construction of infrastructure, land use changes or behavioural changes, potential for impact pathway; and uncertainties relating to the implementation and zone of influence of the plan going forward, 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 Screening AA, the following was determined by EMRA in June 2018:

*'It could not be excluded, on the basis of objective scientific information, that the EM RSES, individually or in combination with other plans and projects will have a significant effect on a European site. As such, it is recommended that an Appropriate Assessment is required and a Natura Impact Report should be prepared.'*

The Screening for AA Report is provided in **Appendix F**.

## 6 STAGE 2 APPROPRIATE ASSESSMENT OF THE DRAFT RSES

### 6.1 INTRODUCTION

The NIR to inform the AA considers the potential impacts of the draft EM RSES and whether they would adversely affect the integrity of a European site. 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 draft EM RSES that have potential to adversely affect 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 draft EM RSES 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 draft EM RSES, avoidance of impacts as a result of implementing the draft EM RSES has therefore been to the forefront of discussions with EMRA.

It is noted that the draft EM RSES is a strategic framework document which will be supported by 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 regional scale.

### 6.2 ASPECTS OF THE PLAN TO BE ASSESSED

Aspects of the EM RSES setting out proposals for growth, settlement, transport, infrastructure, employment and economy were considered in this assessment. **Table 6.1** sets out the aspects of the draft EM RSES and identifies those that were assessed as part of this assessment, and why.

**Table 6.1 – Aspects of the draft RSES Assessed as Part of the NIR Assessment**

Element of RSES	Assessed in NIR
<b>1. Introduction</b>	<ul style="list-style-type: none"> <li>No - Factual information which sets out the role of the regional assemblies and the EMRA.</li> </ul>
<b>2. Strategic Vision</b>	<ul style="list-style-type: none"> <li>No - sets out overall vision for the region. No formal assessment however qualitative commentary on integration of Natura 2000 network and objectives into vision for EMR.</li> </ul>
<b>3. Growth Strategy</b>	<ul style="list-style-type: none"> <li>Yes - Regional growth centres and key growth settlements analysed in the context of European site sensitivities generally in the absence of specific spatial proposals.</li> </ul>
<b>4. People and Place</b>	<ul style="list-style-type: none"> <li>Yes - Regional growth centres and key growth settlements analysed in the context of European site sensitivities generally in the absence of specific spatial proposals.</li> </ul>
<b>5. Dublin MASP</b>	<ul style="list-style-type: none"> <li>Yes - Settlement strategy and enablers assessed</li> </ul>

Element of RSES	Assessed in NIR
6. Economy and Employment	<ul style="list-style-type: none"> <li>▪ Yes – policy base assessed</li> </ul>
7. Environment	<ul style="list-style-type: none"> <li>▪ Yes – policy base assessed</li> </ul>
8. Connectivity	<ul style="list-style-type: none"> <li>▪ Yes – policy base assessed</li> </ul>
9. Quality of Life	<ul style="list-style-type: none"> <li>▪ Yes – policy base assessed</li> </ul>
10. Infrastructure	<ul style="list-style-type: none"> <li>▪ Yes – policy base assessed</li> </ul>
11. All Island Approach	<ul style="list-style-type: none"> <li>▪ Yes – policy base assessed</li> </ul>
12. Implementation and Monitoring	<ul style="list-style-type: none"> <li>▪ Yes – policy base assessed</li> </ul>

### 6.3 APPROACH TO ASSESSMENT

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

- **Impact Prediction** – identify the aspects of the Draft RSES likely to affect the conservation objectives of European sites, the types of impacts 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 model has been used to assess potential for impact;
- **Assessment of Effects** - where the effects of the Draft RSES 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.

### 6.4 IMPACT PREDICTION

As discussed in **Chapter 3**, in considering the potential for impacts from implementation of the Draft RSES, a “source-pathway-receptor” approach has been applied.

A description of the main potential ecological impacts that could arise from the implementation of the draft RSES are presented below with reference to those categories outlined in the EC 2001 *Methodological Guidance on the Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites*:

- Reduction of habitat area;
- Disturbance to key species;
- Habitat or species fragmentation;
- Reduction in species density;
- Changes in key indicators of conservation value (water quality etc.);
- Climate change.

Further discussion on the types of impacts anticipated from implementation of the RSES is presented below:

**Permanent and/or temporary habitat loss or fragmentation:** 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 region whether focussed at metropolitan areas, large or small towns, all has the potential for habitat loss or fragmentation. While the RSES 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.

Indirectly, it can be caused by hydrological disturbance of groundwater dependent sites resulting in loss of habitat function and integrity. Coastal SACs within Fingal County are vulnerable in this regard, given the high proportion of sites that are designated for habitats sensitive to changes in groundwater flow or surface water run-off.

**Disturbance or damage to breeding, roosting, feeding areas:** Disturbance to habitats or species is likely to increase where there is an increase in activity or noise levels from developments in proximity to sensitive areas such as ports. 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 RSES deals with strategic infrastructure including roads, rail, airports and ports this is an important consideration. 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 leading to changes to species distribution and/or changes that affect productivity or breeding success. 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. [The importance of ex-situ habitat must also be considered i.e. where a protected species uses habitat outside the footprint of the relevant designation. This is often an issue for birds such as Brent geese which can use certain managed grassland away from the relevant SPA for resting and feeding purposes. This can lead to competing interests, particularly with regard to land use planning.](#)

**Coastal Areas:** Birds are especially vulnerable to disturbance from tourism and recreation. Such activities are linked to new or improved visitor access and/or facilities which can significantly increase the risk of habitat loss and disturbance and species disturbance. Other developments including housing, coastal defenses and cycleways also add to the pressure in coastal areas.

**Species Mortality:** Species mortality can result from direct mortality of species, for example as a result of collision by birds or bats with energy infrastructure. 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.

**Changes to ecosystem services:** Ecosystems (multifunctional communities of living organisms) provide direct and indirect services which contribute to the wellbeing of the wider community. In the context of the RSES this includes pollination, water attenuation flood mitigation, climate change mitigation and adaptation e.g. carbon storage can have direct and indirect impacts on European sites. Ecosystem services are interlinked with the status of biodiversity and where this is degraded it will lead to a loss of key ecosystem services. This is particularly relevant for habitats such as peatlands which can give rise to social and environmental conflicts, particularly where they offer a source of employment through exploitation. The cost of conserving biodiversity and healthy ecosystems often outweighs the costs of neglect and restoration. It is therefore important to properly integrate biodiversity considerations into planning to avoid later conflict.

**Changes 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 surface or subsurface flow can result in impact to surface and groundwater dependent habitats such as petrifying springs and fens. Introduction or expansion of barriers and changes to natural sedimentation / erosion processes can also impact on life cycles for important species such as salmon and freshwater pearl mussel. Coastal European Sites in particular are vulnerable to changes in surface and ground water quality.

**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<sub>2</sub> 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 of 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. Pathways for the spread of IAS can include increased or expanded port activities, expansion of greenways/ blueways etc. and may go beyond the RA jurisdiction and indeed outside the state where connectivity [rivers, coastal waters] exists.

**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.

### 6.4.1 Impact Prediction

It is acknowledged that the RSES is a regional strategy and as such prediction of effects at individual European sites is not always practical as the strategy lacks spatial detail in some cases to give context to the extent or significance of any potential effects. As such the potential for such effects is raised within the confines of the RSES with a view to appropriately informing lower levels of planning where the necessary spatial detail is available and identifying the mitigation measures that must be in place for lower tier plans and projects to ensure the protection of the Natura 2000 network.'

**Table 6.2 – Potential Ecological Effects Associated with the Policy Objectives Outlined in the draft RSES**

Impact Source	Impact Identification	Impact Prediction
<b>Strategic Vision</b>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Loss of key supporting habitats and ecosystem complexes;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Species mortality;</li> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Alterations to air quality;</li> <li>▪ Alternations due to climate change; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Cumulative Impacts where proposed objectives influence developments that could contribute to cumulative or in-combination effects with other developments.</li> </ul>
<b>Growth Strategy</b>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Loss of key supporting habitats and ecosystem complexes;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Species mortality;</li> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Alterations to air quality;</li> <li>▪ Alternations due to climate change; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Potential direct Impacts where developments (residential, infrastructure, commercial etc.) overlap or intersect with European Sites;</li> <li>▪ Indirect impacts where developments (residential, infrastructure, commercial etc.) adjoin, are proximal to or support connectivity with European Sites;</li> <li>▪ Cumulative Impacts where proposed objectives influence developments that could contribute to cumulative or in-combination effects with other developments.</li> </ul>
<b>People and Place</b>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Loss of key supporting habitats and ecosystem complexes;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Species mortality;</li> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Alterations to air quality;</li> <li>▪ Alternations due to climate change; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Potential direct Impacts where developments (residential, infrastructure, commercial etc.) overlap or intersect with European Sites;</li> <li>▪ Indirect impacts where developments (residential, infrastructure, commercial etc.) adjoin, are proximal to or support connectivity with European Sites;</li> <li>▪ Cumulative Impacts where proposed objectives influence developments that could contribute to cumulative or in-combination effects with other developments.</li> </ul>



Impact Source	Impact Identification	Impact Prediction
<b>Dublin MASP</b>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Loss of key supporting habitats and ecosystem complexes;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Species mortality;</li> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Alterations to air quality;</li> <li>▪ Alternations due to climate change; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Potential direct Impacts where developments (residential, infrastructure, commercial etc.) overlap or intersect with European Sites;</li> <li>▪ Indirect impacts where developments (residential, infrastructure, commercial etc.) adjoin, are proximal to or support connectivity with European Sites;</li> <li>▪ Cumulative Impacts where proposed objectives influence developments that could contribute to cumulative or in-combination effects with other developments.</li> </ul>
<b>Economy and Employment</b>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Loss of key supporting habitats and ecosystem complexes;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Species mortality;</li> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Alterations to air quality;</li> <li>▪ Alternations due to climate change; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Potential direct Impacts where developments (residential, infrastructure, commercial etc.) overlap or intersect with European Sites;</li> <li>▪ Indirect impacts where developments (residential, infrastructure, commercial etc.) adjoin, are proximal to or support connectivity with European Sites;</li> <li>▪ Potential direct and indirect impacts associated with multi-sectoral growth to enable EMRA achieve objectives under this discipline.</li> <li>▪ Potential impacts could be associated with objectives that afford greater tourist access to areas designated as or supporting connectivity with European Sites. Development of the Agri-Food, Bio-Economy and Marine Economy sector which may comprise direct and indirect impacts, depending on the development scale, size, location, duration etc.</li> </ul>
<b>Environment</b>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Loss of key supporting habitats and ecosystem complexes;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Species mortality;</li> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Alterations to air quality;</li> <li>▪ Alternations due to climate change; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Potential direct and indirect impacts associated with citing and development such as Greenways, Blueways, interpretive signage and access associated with areas of scenic, historic and cultural beauty – where these areas overlap adjoin, are proximal to or support connectivity with European Sites.</li> </ul>
<b>Connectivity</b>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Loss of key supporting habitats and ecosystem complexes;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Species mortality;</li> </ul>	<ul style="list-style-type: none"> <li>▪ Potential direct and indirect impacts associated with the development of infrastructural projects such as roads, railways, greenways, blueways etc. where these developments overlap adjoin, are proximal to or support connectivity with European Sites.</li> </ul>

Impact Source	Impact Identification	Impact Prediction
	<ul style="list-style-type: none"> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Alterations to air quality;</li> <li>▪ Alterations due to climate change; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	
<b>Quality of Life</b>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Loss of key supporting habitats and ecosystem complexes;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Species mortality;</li> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Alterations to air quality;</li> <li>▪ Alterations due to climate change; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Potential direct and indirect impacts associated with citing and development of Natural Networks, such as Greenways, Blueways, interpretive signage and access associated with areas of scenic, historic and cultural beauty – where these areas overlap adjoin, are proximal to or support connectivity with European Sites.</li> </ul>
<b>Infrastructure</b>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Loss of key supporting habitats and ecosystem complexes;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Species mortality;</li> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Alterations to air quality;</li> <li>▪ Alterations due to climate change; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Potential direct and indirect impacts associated with the development of infrastructural projects such as, water, wastewater, energy and technology where these developments overlap adjoin, are proximal to or support connectivity with European Sites.</li> </ul>
<b>Implementation and Monitoring</b>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Loss of key supporting habitats and ecosystem complexes;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Species mortality;</li> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Alterations to air quality;</li> <li>▪ Alterations due to climate change; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Potential direct and indirect impacts associated with implementation of the above policy base,</li> </ul>

## 7 ASSESSMENT OF EFFECTS OF DRAFT RSES

### 7.1 INTRODUCTION

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 RSES 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 RSES is to provide a focal point for spatial plans throughout the planning hierarchy. The RSES 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.

The assessment of the RSES has been developed in the context of the full policy base contained within the EM RSES which includes environmental protection policies, introduced as a result of iterative feedback on early draft material to identify issues and as far as possible avoid adverse effects in the first instance, in line with recognised mitigation hierarchy. Of specific relevance to the potential of individual chapters for impact on European sites, the following environmental commitments and objectives which are contained within the EM RSES as set out in **Table 7.1** are considered within the assessment.

**Table 7.1 – Protective Policy Relevant to European Sites and/ or Natura 2000 Network**

Protective Policy Relevant to European sites and/ or Natura 2000 Network	
<b>Chapter 2 Vision</b>	<p><b>7. Sustainable Management of Water, Waste and other environmental resources.</b> <i>Conserve and enhance our water resources to ensure clean water supply, adequate waste water treatment and greater resource efficiency to realise the benefits of the circular economy.</i></p> <p><b>10. Enhanced Green Infrastructure</b> <i>Identify, protect and enhance Green Infrastructure and ecosystem services in the Region and promote the sustainable management of strategic natural assets such as our coastlines, farmlands, peatlands, uplands woodlands and wetlands</i></p> <p><b>11. Biodiversity and Natural Heritage</b> <i>Promote co-ordinated spatial planning to conserve and enhance the biodiversity of our protected habitats and species including landscape and heritage protection.</i></p>
<b>Chapter 3 Growth Strategy</b>	<p><i>Feasibility studies will be carried out to support decision making in relation to policy base for this RSES and this will include an environmental appraisal which considers the potential effects on the wider environment, including specifically, the Natura 2000 Network. Furthermore, feasibility studies will be supported by robust site/ route selection processes which consider a full range of alternative modes and technologies.</i></p> <p><i>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</i></p>

Protective Policy Relevant to European sites and/ or Natura 2000 Network	
	<p><i>be accompanied by one or more of the following, as relevant:</i></p> <ul style="list-style-type: none"> <li>▪ <i>An Ecological Impact Assessment Report (EclA);</i></li> <li>▪ <i>Environmental Report (ER);</i></li> <li>▪ <i>An Environmental Impact Assessment Report (EIAR) if deemed necessary under the relevant legislation (statutory document);</i></li> <li>▪ <i>Natura Impact Statement if deemed necessary (NIS) under the relevant legislation (statutory document).</i></li> </ul> <p><b>RPO:</b> <i>Ensure that all plans, projects and activities requiring consent arising from the Regional Spatial and Economic Strategy are subject to the relevant environmental assessment requirements including SEA, EIA and AA as appropriate</i></p> <p><b>RPO:</b> <i>Identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.</i></p>
<b>Chapter 4 People and Place</b>	<p><b>RPO:</b> <i>Support the proposed Drogheda Flood Relief Scheme, subject to the outcome of the planning process and appropriate environmental assessment.</i></p> <p><b>RPO:</b> <i>Support the proposed Dundalk Flood Relief Scheme, subject to the outcome of the planning process and appropriate environmental assessment.</i></p> <p><b>RPO:</b> <i>Support the extension of the Boyne Greenway to include Navan to promote sustainable transport choices and as a recreation asset for the town, subject to the outcome of the planning process and environmental assessments.</i></p> <p><b>RPO:</b> <i>Support the proposed Longford Flood Relief Scheme subject to the outcome of appropriate environmental assessment and the planning process.</i></p>
<b>Chapter 5 Dublin MASP</b>	<p><b>RPO:</b> <i>Future residential development in the Dublin Metropolitan Area shall follow a clear sequential approach, with a primary focus on the consolidation of Dublin and suburbs, supported by the development of Key Metropolitan Towns in a sequential manner as set out in the Metropolitan Area Strategic Plan (MASP) and in line with the overall Settlement Strategy for the RSES. Identification of suitable residential development sites shall be supported by a quality site selection process that addresses environmental concerns.</i></p>
<b>Chapter 6 Economy and Employment</b>	<p><b>RPO:</b> <i>Local Authorities shall have regard to environmental and sustainability considerations for meeting sustainable development targets and climate action commitments, in accordance with the National Adaptation Framework. In order to recognise the potential for impacts on the environment, Local Authorities shall address the proper site/route selection of any new development and examine environmental constraints including but not limited to biodiversity, flooding, landscape, cultural heritage, material assets, including the capacity of services to serve any new development.</i></p>
<b>Chapter 7 Environment and Climate</b>	<p><i>Local authority Development Plan and Local Area Plans, shall identify, protect, enhance, provide and manage Green Infrastructure in an integrated and coherent manner and should also have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species.</i></p> <p><b>RPO:</b> <i>Support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the Region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and Local Authority Development Plans.</i></p> <p><b>RPO:</b> <i>EMRA shall, in conjunction with local authorities in the Region, identify Strategic Energy Zones as areas suitable for larger energy generating projects, the role of community and micro energy production in urban and rural settings and the potential for renewable energy within industrial areas.</i></p> <p><i>The Strategic Energy Zones for the region will ensure all environmental constraints are addressed in the analysis. A regional landscape strategy should be developed to support delivery of projects within the Strategic Energy Zones.</i></p>
<b>Chapter 8</b>	<p><i>EMRA supports the undertaking of feasibility studies to determine the carrying capacity of ports in relation to potential for likely significant effects on associated European sites</i></p>

<b>Protective Policy Relevant to European sites and/ or Natura 2000 Network</b>	
<b>Connectivity</b>	<p><i>including SPAs and SACs.</i></p> <p><i>Investment priorities for cycleways Feasibility and route selection studies for cycleways shall identify and subsequently avoid high sensitivity feeding or nesting points for birds and other sensitive fauna.</i></p> <p><i>Proposals for infrastructure investment should clearly demonstrate their consistency with spatial planning objectives, at regional and national level. Such proposals will be subject to environmental assessment and feasibility where assessment has not already taken place.</i></p> <p><b>RPO:</b> <i>The RSES supports delivery of the rail projects set out in Table 8.2, subject to the outcome of appropriate environmental assessment and the planning process;</i></p> <p><b>RPO:</b> <i>The RSES supports delivery of the bus projects set out in Table 8.3 subject to the outcome of appropriate environmental assessment and the planning process.</i></p> <p><b>RPO -</b> <i>The RSES supports appraisal and or delivery of the road projects set out in Table 8.4 subject to the outcome of appropriate environmental assessment and the planning process.</i></p> <p><b>RPO:</b> <i>The draft RSES supports delivery of the strategic park and ride projects set out in Table 8.5 subject to the outcome of appropriate environmental assessment and the outcome of the planning process.</i></p>
<b>Chapter 10 Infrastructure</b>	<p><b>RPO:</b> <i>EMRA supports the delivery of the strategic water services projects set out in Table 10.1, subject to appropriate environmental assessment and the planning process.</i></p> <p><b>RPO:</b> <i>EMRA supports the delivery of the waste water infrastructure set out in Table 10.2, subject to appropriate environmental assessment and the planning process.</i></p> <p><b>RPO:</b> <i>Local Authorities shall take opportunities to enhance biodiversity and amenities and to ensure the protection of environmentally sensitive sites and habitats, including where flood risk management</i></p> <p><i>The following guiding principles shall be incorporated into Development plans and LAPs: take opportunities to enhance biodiversity and amenity and to ensure the protection of environmentally sensitive sites and habitats, including where flood risk management measures are planned. Plans and projects that have the potential to negatively impact on Natura 2000 sites should be subject to the requirements of the Habitats Directive.</i></p> <p><i>Local Authority Development Plans shall facilitate the provision of energy networks in principle based on the following guiding principles and considerations: the design is such that it will achieve least environmental impact;</i></p> <p><b>RPO:</b> <i>Support and facilitate the development of enhanced electricity and gas supplies, and associated networks, to serve the existing and future needs of the Region and facilitate new transmission infrastructure projects that might be brought forward in the lifetime of this Strategy including the delivery of the necessary integration of transmission network requirements to facilitate linkages of renewable energy proposals to the electricity transmission grid in a sustainable and timely manner subject to appropriate environmental assessment and the planning process.</i></p> <p><b>RPO:</b> <i>Support EirGrid’s Implementation Plan 2017 – 2022 and Transmission Development Plan (TDP) 2016 and any subsequent plans prepared during the lifetime of the RSES that facilitate the timely delivery of major investment projects subject to appropriate environmental assessment and the outcome of the planning process</i></p>
<b>Chapter 11 All Island Cohesion</b>	<p><i>In the context of ongoing North-South cooperation across a wide range of policy areas, there are three key areas of practical co-operation between relevant Departments and local authorities in Ireland and</i></p> <p><i>Northern Ireland that will both support and be supported by the implementation of both the NPF and the RSES. These relate to economic development, investment in infrastructure and environmental management.</i></p>

## 7.2 STRATEGIC VISION (CHAPTER 2 OF RSES)

The draft RSES sets out 16 Regional Strategic Outcomes (RSOs), which underpin the vision for the region and are intended to align with international, EU and national policy and set the framework for City and County Development Plans.

### Regional Strategic Outcomes

The 16 Regional Strategic Outcomes (RSO), as presented in the Eastern and Midlands RSES have been developed to align, to a degree with the National Strategic Outcomes (NSO) from the recently published NPF (May 2018). Broadly speaking the RSO's point to a prioritisation of compact growth with a view to developing healthy attractive places for communities; climate action grounded in sustainable development and the circular economy; and economic opportunity which enhances both inter-national and intra-national connectivity. The RSO are broadly focussed on sustainable development however it is acknowledged that the expression of these proposed outcomes will be through the regional policy objectives in Chapters 3-11 of the RSES.

Biodiversity has been integrated directly through RSO\_10 and RSO\_11. RSO\_10 references natural assets such as bogs, peatlands and wetland and the role they can play in ecosystem services in the region. RSO\_11 promotes the conservation and enhancement of our protected habitats and species in the broad sense but does not address the Natura 2000 sites within and connected to the region which could be impacted by increased population growth pressure from recreation, water and waste water, transport links etc. and economic growth pressures from land use change, construction, emissions to air and water etc. A specific RSO to avoid adverse effects on the integrity of European sites / Natura 2000 network and contribute positively to achieving their conservation objectives should be included in the RSO's. Furthermore, recognition of the importance of regional and local biodiversity which may not be protected but plays a supporting role in the overall wellbeing of the natural environment should be recognised. Article 10 of the Habitats Directive refers to features of the landscape outside designated sites which are of importance for wild flora and fauna, as follows:

*Member States shall endeavour, where they consider it necessary, in their land-use planning and development policies and, in particular, with a view to improving the ecological coherence of the Natura 2000 network, to encourage the management of features of the landscape which are of major importance for wild fauna and flora.*

*Such features are those which, by virtue of their linear and continuous structure (such as rivers with their banks or the traditional systems for marking field boundaries) or their function as stepping stones (such as ponds or small woods), are essential for the migration, dispersal and genetic exchange of wild species.*

**Figure 7-1** below presents the Natura 2000 sites within the EMR overlaid with the ecological resources map from NPWS to better illustrate the potential for enhancement of linkages across the region. This could act as a blue print for the region to build up a "live" ecological resource map of the region.

### Mitigation Measures and Recommendations:

- An explicit RSO should be included to protect and manage the Natura 2000 network.
- The requirements of Article 10 of the Habitats Directive are not specifically considered under the AA process (except in so far as they support a qualifying feature) but it is recommended that the EMRA includes a specific RSO which addresses the ensures that ecological connectivity within the Plan area is maintained or improved, which will in turn improve the coherence of the Natura 2000 network.
- Develop an ecological resource map for the region.

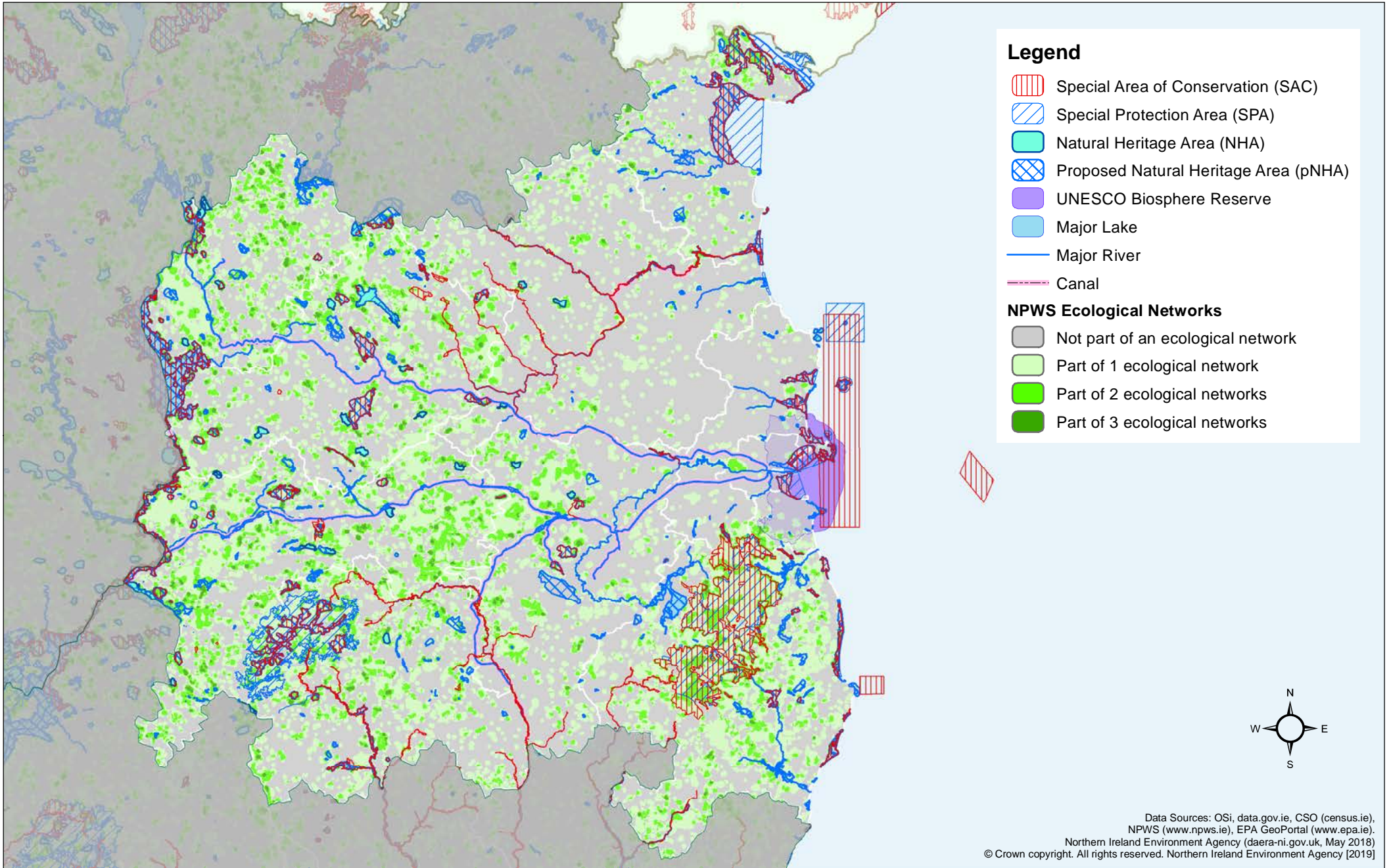


Figure 7-1 - Biodiversity & Natural Heritage Resources - Eastern & Midland Region

## 7.3 GROWTH STRATEGY AND PEOPLE & PLACE (CHAPTER 3 AND 4 OF RSES)

The growth and settlement strategy for the EMR includes two tiers in addition to the Dublin Metropolitan Area. The first tier includes 3 Regional Growth Centres; the second tier includes 12 Key Growth Settlements. The settlements chosen as part of the Growth Strategy comprise the following:

- **Dublin City and Suburbs**
- **Regional Growth Centres:** Athlone, Drogheda and Dundalk;
- **Key Growth Settlements:** Swords, Maynooth, Bray [Metropolitan Area]; Navan, Naas, Wicklow/ Rathnew [Hinterland Area]; and Longford, Mullingar, Tullamore, Portlaoise, Carlow (Graiguecullen) [Outer Region].

### 7.3.1 Land Use Planning and Biodiversity

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.

In 2017, the European Commission published a study into Natura 2000 and spatial planning. The study acknowledged the challenges associated with incorporating Natura 2000 in spatial planning but also acknowledged the important role it has in protecting and managing Natura 2000 areas. Box 1 reproduces the elements which were reported in the study as being required at the Member State level.

**BOX 1: Towards an Integrated Spatial-planning Approach for Natura 2000 [From EC Report on Natura 2000 and Spatial Planning, 2017].**

- Natura 2000 needs to be an integral part of long-term strategies for spatial planning and territorial development. These strategies should address the relationship between sectoral developments and the need for improving and maintaining the functional connectivity of Natura 2000 areas;
- The spatial-planning systems of the Member States need to be further enhanced with regard to the implementation of the Nature Directives. Natura 2000 provisions should be more explicitly embedded as a priority objective within long-term spatial plans (e.g. 5-10 years) at regional and local level;
- The preparation of spatial plans and projects for specific sectoral developments needs to be based on ecological principles and knowledge. These plans should therefore ideally be developed by interdisciplinary teams of experts;
- SEA, EIA and appropriate assessment instruments are key instruments for ensuring knowledge-based prevention, mitigation and compensation of sector-specific impacts on Natura 2000 areas. These instruments need to be further enhanced with specific ecological knowledge and assessment criteria, for specific sectoral developments (e.g. sectoral guidelines);
- Early stakeholder participation and consultation in the spatial-planning process is a key factor for ensuring the quality and legitimacy of, and public support for spatial plans;
- The use of expert-based tools such as new GIS technologies can be effective in integrating Natura 2000 issues in the spatial planning process.

### 7.3.2 Dublin City and Suburb

An outline Metropolitan Area Strategic Plan (MASP) has been developed covering Dublin City and suburbs. See MASP assessment in **Section 7.4**. [Note, this includes the Key Growth Centres of Swords, Maynooth and Bray however they are dealt with here].

### 7.3.3 Regional Growth Centres

#### Athlone

##### Key Constraints:

- Special Area of Conservation (SAC): Lough Ree; Crosswood Bog SAC; Cairn Bog SAC
- Special Protection Area (SPA): Lough Ree; Middle Shannon Callows
- Natural Heritage Area (NHA): Carrickynaghtan Bog; Clonydonnin Bog
- Proposed Natural Heritage Area (pNHA): River Shannon Callows; Lough Ree; Crosswood Bog; Waterstown Lake; Castlesampson Esker
- Long-established Woodland (not ancient): Meehan Wood; Carnpark Woods
- Annex I Habitats: multiple present outside/adjacent to CSO boundary (not assessed by NPWS)
- Birdwatch Sensitivity: Highest
- Contribution to potential ecological networks
- Terrestrial biodiversity: medium-high
- Woodland Habitat: Alluvial forest - Wet willow-alder-ash woodland
- 4 x Discharge licenses
- Quarry & pits: multiple including: Rooskagh; Athlone; Cornafulla; Eskerbeg
- 3 x landfill sites
- Licensed waste facility: Ballydonagh Landfill
- Aquifer vulnerability: Moderate-High
- Wetlands: inland marshes
- Landscape Character Areas: overlapping Roscommon side of Athlone, High Sensitivity (Lower Lough Ree and Athlone Environs)
- Water Framework Directive (WFD) Lake 2010-2015 Ecological Status and Risk: Lough Ree – Moderate Status, At Risk
- WFD River 2010-2015 Ecological Status and Risk: River Shannon – Poor Status, At Risk,
- Wastewater Treatment Plant (WWTP): Athlone; Plant Compliance: Pass; Design Capacity: 30,000 population equivalents [PE] (2016 EPA), 36,000 (by 2021, Irish Water); Agglomeration Served: 23,274 PE (2016, EPA), 23,422 (2017, Irish Water); Priority Urban Area for Wastewater Improvements (Failing EU Standards)<sup>10</sup>
- WWTP: Monksland; Plant Compliance: Pass; Design Capacity: 14,381 PE; Agglomeration Served: 9,894 PE (2016, EPA), 10,381 (2017, Irish Water); Priority Urban Area for Wastewater Improvements (Failing EU Standards)

##### Flood Risk Summary:

The spatial growth of Athlone is dominated by the River Shannon and Lough Ree to the north of the

<sup>10</sup> Note: Urban wastewater figures are stated with reference to the current publically-available datasets available from the live EPA Web Mapping Service: <https://gis.epa.ie/EPAMaps/SewageTreatment>. The latest WWTP compliance year is for 2014 (EPA). Further, Irish Water have provided EMRA with more recent figures for current and future capacity to 2021 and PE load figures for 2017; this data is also referenced where available.

### Athlone

town. The lands to the south of the town are dramatically impacted by extreme flooding from the River Shannon. This influences the town to grown spatially to the east and west which is already prevalent from an aerial view of the town. The principal of avoidance is particularly important along the banks of the Shannon as inappropriate development could potentially put more lives at risk of flooding. Design of the Athlone flood relief scheme is underway with construction of the scheme set to take place in the next two to three years.

The areas within lands zoned future residential and commercial developments identified within the predicted Flood Zone A & B require site specific flood risk assessments to ensure no adverse flood risk impacts. The Justification Test applies to applications for future residential and commercial development. Existing residential and mixed use developments at Athlone Town Centre zoned for future regeneration are located within the predicted Flood Zone A. Applications for major development within these areas required a site specific flood risk assessment to ensure no increase in flood risk to the development and surrounding areas. The Justification Test applies to application for major development in areas of flood risk. The CFRAM MRFS flood extents show an increase in predicted flood extents within the town. Future development plans and flood risk assessments should consider the potential of climate change influence on flood extents in accordance with the Guidelines.

#### Assessment:

In consideration of the above, the development of Athlone as a regional growth centre has potential for adverse effects on European sites along a number of pathways. These pathways include:

- Habitat loss, destruction and / or disturbance as a result of the growth ambition;
- Species disturbance;
- Decreased water quality as a result of the growth ambition. It is noted that while both wastewater treatment plants are serving agglomeration within their design capacity, both are noted as being on the EPA's list of Priority Urban Areas. The River Shannon passing through Athlone receives the primary discharge from the Athlone plant and the river is currently at poor ecological status. Priority Urban Areas for wastewater treatment require improvements to the plant and/or network in order to resolve environmental priorities;
- Increased demand on water supply; and
- In-combination impacts with other key growth settlements.

The promotion of enterprise expansion through enabling employment opportunities and expanding the economic base has potential for AESI as a result of loss of greenfield to development, loss of/disturbance to habitats and species, potential loss of floodplain, alterations to landscape character or disturbance to supporting features. Supporting the regeneration of sites is broadly positive where regeneration sites provides the opportunity to manage uncontrolled run-off and/ or contamination issues and generally improve the quality of the receiving environment. There are potential negative where regeneration or infill development results in emissions to water or the generation of contaminated material from brownfield sites or gives rise to spread of IAS.

RPOs which promote Athlone as an amenity and tourist destination will have both positive and negative impacts for European sites. Some tourism activities, particularly those that promote water-based activities, may give rise to indirect long-term negative impacts particularly in the context of the QI for Lough Ree and the Shannon. For instance, increasing the amenity potential of the River Shannon and Lough Ree waterways may cause and increase pollution emissions to these waters from boating. Invasive alien species have been recorded in the Lough Ree e.g. the zebra mussel, which can be spread by human activities. IAS are a significant threat to the health of the European site.

The provision of cycleways is generally positive in reducing potential air pollution and curbing GHG emissions, however the Lough Ree SPA and Middle Shannon Callows SPA are located directly

### Athlone

adjacent to the north and south of Athlone town boundary, and there are potential negative impacts from disturbance to birds in these European sites as a result of increased visitor pressure and provision of supporting amenities and infrastructure.

Population growth within Athlone will result in increased demand on water supply and therefore there is potential for increased abstractions leading to changes/pressures on existing hydrological/hydrogeological regimes.

There is also potential for in-combination impacts with other regional or key growth settlements, in the form of multiple pressure points on interrelated European Sites.

#### Mitigation Measures:

The Joint Area Action Plans should explicitly consider potential for impact pathways in relation to European sites and the potential for ex-situ impacts. Action plans will ensure no adverse effects on the integrity of any European site as a key objective.

Phasing of services in tandem with growth and settlement is essential to avoid adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network.

In order to meet the increased demands on the water supply and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources e.g. hydromorphological pressures.

Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.

A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.

Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.

### Drogheda

#### Key Constraints:

- SAC – River Boyne & River Blackwater, Boyne Coast and Estuary
- SPA – Boyne Estuary
- pNHA – Boyne Coast and Estuary
- Ancient woodland
- Annex 1 habitats: Tidal mudflats, estuaries, residual alluvial forests
- Coastal habitats – saltmarshes
- Contributions to ecological networks
- Forestry
- Terrestrial biodiversity: medium - high
- Nutrient Sensitive Area: Boyne Estuary
- UNESCO World Heritage Site (Brú na Bóinne) – eastern part of buffer zone directly adjacent to M1
- Riparian woodland

**Drogheda**

- 5 x Quarries & pits
- Aquifer vulnerability: generally low; some areas high-extreme
- Landscape Character Areas: High (Boyne & Mattock Valley) to Medium (Coastal Plains) Sensitivity
- WFD River 2010-2015 Ecological Status and Risk: River Tullyeskar and Stagrennan – Unassigned Status, At Review
- WWTP: Drogheda; Plant Compliance: Pass; Design Capacity: 101,600; Agglomeration Served: 68,260 (2016 EPA), 70,283 (2017 Irish Water); Priority Urban Area for Wastewater Improvements (Failing EU Standards)
- WWTP: Tullyallen Sewerage Scheme; Plant Compliance: Fail; Design Capacity: 1,800 PE; Agglomeration Served: 1,593 PE (Note: not a Priority Area)

**Flood Risk Summary:**

Drogheda sits at the mouth of the River Boyne discharging into the Irish Sea. There is partial flooding to the north and south of the town and the principle of avoidance should be implemented to avoid flood risk. Fluvial and tidal flooding from the banks of the River Boyne affects the quays of the town as well as partially propagating inland in areas between St. Marys Bridge and St. Dominick's Bridge for higher return periods. Development in this area should follow the sequential approach and appropriate land use types adopted.

The areas within lands zoned for future residential and employment hubs identified within the predicted Flood Zone A & B require site specific flood risk assessments to ensure no adverse flood risk impacts. The Justification Test will apply to applications within these areas.

Existing residential and mixed use developments at Drogheda Town Centre zoned for future regeneration located within the predicted Flood Zone A & B require flood risk management to ensure flood risk is mitigated and does not have an adverse impact elsewhere. Applications for major development within these areas required a site specific flood risk assessment to ensure no increase in flood risk to the development and surrounding areas. The Justification Test applies to application for major development in areas of flood risk.

Applications for minor development to these existing buildings in areas of flood risk such as small extensions and most changes of use must include a flood risk assessment of appropriate detail to demonstrate that they would not have adverse flood risk impacts and employ flood resilient construction.

FRAs should address the site layout with respect to vulnerability of the proposed development type, finished floor levels should be above the 1% AEP level, flood resilient construction materials and fittings should be considered and the site should not impede existing flow paths or cause flood risk impacts to the surrounding areas.

**Assessment:**

In consideration of the above, the development of Drogheda as a regional growth centre has potential for adverse effects on European sites along a number of pathways. These pathways include:

- Habitat loss and or disturbance as a result of the growth ambition.
- Species disturbance through increased resident and or visiting population in particular in the vicinity of sensitive species and habitats;
- Habitat fragmentation, the River Boyne and Blackwater SAC flows through Drogheda whilst downstream the Boyne Estuary SPA and Boyne Coast and Estuary SAC discharge into the Irish Sea;
- Decreased water quality as a result of the growth ambition;
- Increased demand on water supply; and

## Drogheda

- In-combination impacts with other key growth settlements.

Drogheda is the largest town in Louth, with its functional area extending into County Meath. It is identified as the fastest growing town in the state and is a strategically important commuter town along the Dublin-Belfast Corridor, owing to its location adjacent to the border with Northern Ireland. There is a healthy equilibrium between resident works and jobs, particularly in respect of the “Louth Pharma Hub”.

In summary, the RPO's seek to prioritise compact regeneration of existing town centre in brown field sites along with compact and providing sustainable development. The RPO's also seek to promote cross border interactions and growth potential of Drogheda, Dundalk Newry whilst enhancing Drogheda as a strategic employment zone. Key named projects with potential to impact upon European sites and their qualifying features include the regeneration of Dundalk Port/Harbour and the proposed Flood relief Scheme.

The River Boyne and River Blackwater SAC, SPA and pNHA traverse through the centre of Drogheda, connecting the Boyne Coast and Estuary SAC, SPA and pNHA to the Irish Sea directly to the east of the settlement. These areas support a rich coastal biodiversity with several Annex I habitats, including the estuary, mudflats and variety of dune systems. As such, the region as a high number of legally protected habitats and species and is within several ecological corridor networks, in addition to designated shellfish areas located at the coast to the north-east and south-east. Terrestrial biodiversity potential is medium to high across the area, associated with ancient woodland located to the east and west of Drogheda, and scattered small forest holdings throughout the area. The Tullyeskar River and Stagrennan River which flows through Drogheda from the north and south respectively has unassigned ecological status; however the River Boyne has been classified as good status and Not at Risk under the current cycle of the WFD. Both flow into the River Boyne and River Blackwater SAC/SPA as it transitions into the Boyne estuary which surrounded by wetlands before meeting the Irish Sea. The Boyne Estuary is at Moderate Ecological Status and is At Risk. The Northwestern Irish Sea coastal water body is at Good status. Flood risk is generally well contained within the settlement boundaries, this extends across flood plains located immediately east of Drogheda.

Wastewater is treated in the Drogheda waste water facility currently catering for 68,620 PE, it is within plant design capacity of 101,600 and has passed compliance standards. However, it is noted that the Boyne Estuary, into which both plants' effluent is discharged, is at Moderate WFD status and is At Risk of failing to achieve WFD objectives. The Boyne Estuary is also a designated Nutrient Sensitive Area and as such is sensitive to further nutrient inputs. Given the sensitivity of the receiving environment, the Drogheda plant is listed by the EPA as a Priority Urban Area for Wastewater Improvements for failing EU standards. The plant is noted to be non-compliant with more stringent treatment requirements i.e. the discharged effluent met effluent quality standards however, as the treatment provided is at secondary level only (biological treatment), this does not meet the Urban Wastewater Treatment Directive's requirement for a plant of this size.

Improvements in access and relocation opportunities at the economically important Drogheda Port could adversely affect the integrity of European sites at the mouth of the Boyne River and the estuary through development and dredging etc. A masterplan for the port is currently being prepared for 2020-2050 which is noted to be at the Issues Paper/ consultation phase. There are also potential negative impacts due to increased noise and air emissions due to expansion and relocation activities. There are potentially negative impacts as increased port activities and expansion may effect change to coastal processes and also QI habitats and QI/SCI species. Port growth may result in increased shipping and the need for dredging. Dredging can alter sediment regimes and also result in release of contamination. Increased port activities and increased shipping volumes may have negative impacts for seabird and mammal populations along the east coast and offshore, as well as in-situ seafloor habitats. The River Boyne and River Blackwater Estuary SAC and SPA pass through the town, and there are a number of designated sites downstream at the coast with direct hydrological connectivity i.e. Boyne Coast and Estuary SAC, and Boyne Estuary SPA. Water quality

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has the potential to be negatively impacted by discharges/emissions from port activities to the water column and marine sediments. There is potential for short- to long-term negative impacts from contamination issues or disturbance to potentially contaminated soils and marine sediments associated with construction and dredging activities. The expansion of or relocation of activities associated with ports and marinas such as identified for Drogheda will require a feasibility study to be undertaken in the first instance and recognition that in the absence of coastal zone management that there is potential negative impacts to European sites in terms of landuse changes and resultant environmental effects in terms loss or degradation of habitat, species disturbance and impacts to soils, water or air including any legacy of contaminated soils.

Fluvial and tidal flooding from the banks of the River Boyne affects the quays of the town as well as partially propagating inland in areas between St. Marys Bridge and St. Dominick’s Bridge for higher return periods. Further development or regeneration in these low-lying areas could result in impacts to or contamination of the River Boyne as well as potential disturbance to or degradation of habitat for qualifying birds and mammals such as Otter as well as downstream Annex I habitats.

Drogheda is integrally associated with the Dublin Belfast Corridor as well as being proximal to Dundalk. There is potential for in-combination impacts with other MASP in the form of multiple pressure points such as delivery of transport infrastructure and housing development on interrelated European sites.

**Mitigation:**

Phasing of services in terms of growth and settlement is essential to avoid adverse impacts on the integrity of the Natura 2000 network.

In order meet the increased demands on the water supply and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources (e.g. hydromorphological pressures).

Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.

A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.

Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.

**Dundalk****Key Constraints:**

- SAC & SPA: Dundalk Bay; Carlingford Shore SAC;
- RAMSAR site – Dundalk Bay
- pNHA: Dundalk Bay; Drumcah, Toprass & Cortial Loughs; Carlingford Mountain
- Ancient Woodland: Tipping hill
- Annex I habitats: Estuaries; Large shallow inlets & bays; Transition mires
- Birdwatch sensitivity: Low
- Coastal habitats: saltmarshes
- Contribution to ecological networks – low; med-high NE of town

**Dundalk**

- Forestry: mixed
- Terrestrial biodiversity: medium
- Quarries: Loughanmore Pit
- Wind farm: Dundalk IT Wind Turbine
- 3 x Discharge licenses
- 4 x IPPC licenses
- 2 x licensed waste facility
- Port: commercial port
- Landscape Character Area: Lower Faughart, Castletown & Flurry River Basins (Low Sensitivity – north of Castletown Road); Muirhevna Plain (Medium Sensitivity – south of Castletown Road)
- Aquifer vulnerability: Moderate-High
- Wetland: intertidal flats
- WFD River 2010-2015 Ecological Status and Risk: Castletown River – Moderate Status, At Risk; Ramparts River – Unassigned Status, at Review; Raskeagh – Unassigned Status, at Review; Haggardstown – Unassigned Status, Not at Risk; Fane – Unassigned Status, at Review
- WFD Coastal & transitional water bodies status: mod-good
- WFD Coastal & transitional water bodies at risk: Castletown Estuary, Inner Dundalk Bay – At Risk; Ballymascanlan Estuary – at Review; Outer Dundalk Bay Coastal Water Body – at Review
- Nutrient Sensitive Area: lower reaches of the Castletown River; Castletown Estuary; Inner Dundalk Bay coastal water body
- WWTP: Dundalk; Plant Compliance: Pass (secondary treatment only); Design Capacity: 179,107 PE (EPA), 120,000 PE by 2021 (Irish Water); Agglomeration Served: 77,838 PE (2016 EPA), 93,261 PE (2017 Irish Water); Priority Urban Area for Wastewater Improvements (Failing more stringent EU Standards; primary pressure on a river/lake)
- WWTP: Blackrock; Plant Compliance: Pass (secondary treatment only); Design Capacity: 6,000 PE; Agglomeration served: 7,262 PE (operating over capacity); Priority Urban Area for Wastewater Improvements (primary pressure on a river/lake)

**Flood Risk Summary:**

The Mourne Mountains to the north of the Dundalk and hilly terrain to the west with the Irish Sea to the east has seen most development in Dundalk grow southwards towards the village of Blackrock. The M1 circumnavigates the town which will consolidate growth of the development to the south of the town centre.

The town centre is susceptible to fluvial flooding along the Castletown River but also from tidal flooding propagating inland from the Irish Sea via Dundalk Estuary. The extent of the CFRAM mapping would indicate that the growth of Dundalk will largely be comprised of infill development between the boundary of the existing town and the M1. The areas within lands zoned future residential and employment hubs identified within the predicted Flood Zone A & B require site specific flood risk assessments to no ensure no adverse flood risk impacts. The Justification Test applies to applications within these areas.

Existing residential and mixed use developments at Dundalk Town Centre zoned for future regeneration located within the predicted Flood Zone A & B require flood risk management to ensure flood risk is mitigated and does not have an adverse impact elsewhere. Applications for major development within these areas required a site specific flood risk assessment to ensure no increase in flood risk to the development and surrounding areas. The Justification Test applies to



## Dundalk

application for major development in areas of flood risk.

Dundalk has been identified as being particularly susceptible to flooding from climate change scenarios. Future land zone planning for the town should incorporate this into their FRA and development policies.

### Assessment:

In consideration of the above, the development of Dundalk as a regional growth centre has potential for adverse effects on European sites along a number of pathways. These pathways include:

- Habitat loss and or disturbance as a result of the proposed growth ambition, particularly around the Harbour and Port area and recreational activities that might arise.
- Species disturbance and/or displacement from development proposal.
- Decreased water quality as a result of the growth ambition. It is noted that the town's wastewater treatment plant is operating within its design capacity, however, it is listed as being on the EPA's list of Priority Urban Areas. Priority urban areas for wastewater treatment require improvements to the plant and/or network in order to resolve environmental priorities.
- Increased demand on water supply; and
- In-combination impacts with other coastal key growth settlements.

The development of Dundalk and its port have been influenced largely owing to its proximity to the Castletown River which flows into Dundalk estuary. As such a number of the RPO's are focused on the regeneration within the town centre, urban expansion within the Mount Avenue master plan lands and repurposing the Port areas as a water-based urban quarter. Regeneration is generally considered positive as it reduces greenfield loss and potential impacts on species that might use this habitat. However, there are potential negative impacts associated with regeneration or infill development results, particularly in respect of in emissions to water including uncontrolled runoff or the generation of contaminated material from brownfield sites or which gives rise to the spread of IAS.

Waterbodies draining the Inner Dundalk Bay are all nutrient sensitive and are at risk of not meeting their WFD objectives. There are vulnerabilities in respect of flooding along the Castletown River, notably in close proximity to the railway line, and in Toberona and Saltown. Waste water is treated in the Dundalk waste water facility currently catering for 77,838 PE in 2016 and 93,723 as of 2017, which is within its design capacity of 179,107 PE, or 120,000 PE as reported by Irish Water. While the effluent has passed compliance and appears to have sufficient headroom for the coming years, given the sensitivity of the receiving environment the Dundalk plant is listed by the EPA as a Priority Urban Area for failing more stringent EU standards and for being listed as a primary pressure on a receiving water body (Castletown Estuary is at Moderate WFD status) i.e. while the discharged effluent met effluent quality standards, as the treatment provided is at secondary level only (biological treatment), this does not meet the Urban Wastewater Treatment Directive's requirement for a plant of this size. The Blackrock agglomeration is noted to be directly south of and adjacent to the Dundalk settlement boundary. The plant here is operating over its design capacity, despite receiving a Pass for compliance, but is listed by the EPA as a Priority Urban Area for being the primary pressure on a water body. The Fane Estuary has Unassigned status but is considered to be Not at Risk; the Inner Dundalk Bay coastal water body however is directly downstream of the effluent emission point and is at Moderate status and At Risk of not meeting WFD objectives. The growth ambition for Dundalk will therefore have negative short to long-term impacts as a result of the sensitivity of the receiving environment to wastewater discharges.

Another RPO is concerned with Enhancing the potential for economic regeneration at Dundalk Port/Harbour Area. The ecological sensitivities of the Port must be considered as it is adjacent to overlapping designated sites. Negative Impacts such as construction noise and vibration as well as. As a result of the redevelopment and/or expansion of the port along with operational impacts

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leading to increased activity and the potential need for dredging which could mobilise hazardous or contaminated material, there is potential for Likely Significant Effect and adversely affect upon the integrity of the European sites in terms of changes to coastal processes including loss of floodplain and QI habitats and SCI species as well as the spread of IAS. Any such enhancement will be subject to feasibility study and appropriate coastal zone management. In the absence of national ICZM, what is defined as appropriate.

The promotion of cross-border interactions to realise growth potential and enhance the towns strategic employment role within the Dublin-Belfast Economic corridor although economically positive, nonetheless has the potential to adversely affect upon the integrity of the European sites as result of greenfield loss, loss and/or disturbance to habitats and species, alterations to landscape character, increase on traffic volumes and disturbance to supporting features. The cross border interactions include the connectivity to the wider European sites.

A final RPO is aimed at promoting Dundalk IT as a centre of excellence for education. No likely significant effect is anticipated as it seeks merely to support an established facility.

**Mitigation Measures:**

The Dundalk wastewater treatment plant is operating within its design capacity and is considered to have sufficient headroom. The plant, however, is listed as a Priority Urban Area and is failing more stringent treatment standards. As such, population growth needs to be phased alongside improvements to wastewater treatment.

The expansion of activities associated with ports and marinas such as identified for Dundalk will require a feasibility study to be undertaken in the first instance and recognition that in the absence of coastal zone management, there is potential negative impacts to European sites.

An Urban Area Action Plan, which is cognisant of transboundary Local Government Authorities in Northern Ireland (Newry, Mourne and Down) should explicitly consider potential for impact pathways in relation to European sites and the potential *ex-situ* impacts.

Phasing of services in tandem with growth and settlement is essential to avoid adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network.

In order meet the increased demands on the water supply and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources e.g. hydromorphological pressures.

Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.

The areas within lands zoned future residential and employment hubs identified within the predicted Flood Zone A & B require site specific flood risk assessments to no ensure no adverse flood risk impacts. The Justification Test applies to applications within these areas.

A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.

Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.

## 7.3.4 Key Growth Towns

### 7.3.4.1 Metropolitan Area

#### Swords

##### Key Constraints:

- SAC: Malahide Estuary
- SPA: Broadmeadow/Swords Estuary
- RAMSAR: Broadmeadow Estuary
- pNHA: Feltrim Hill; Malahide Estuary
- Annex I habitats: estuaries; tidal mudflats and sandflats; salt meadows; white dunes; grey dunes
- Coastal habitats: saltmarshes
- Contribution to ecological networks: low
- Forestry
- Landscape Character Area: Airport & Swords; Rolling Hills with Tree Belts; Low-Lying Agricultural (Medium Sensitivity); Estuary (High Sensitivity)
- Terrestrial biodiversity: medium - high
- Aquifer vulnerability: moderate to high
- Nutrient Sensitive Area: Broadmeadow Estuary
- WFD River & Coastal Status: R. Ward, R. Broadmeadow – Poor; Broadmeadow Estuary, Malahide Bay - Moderate
- WFD Water Body Risk: All At Risk
- WWTP: Swords; Plant Compliance: Pass; Design Capacity: 60,000 PE (EPA), 90,000 by 2021 (Irish Water); Agglomeration Served: 54,937 PE (2016 EPA), 56,920 PE (2017 EPA)

##### Flood Risk Summary:

Greenfield lands at Lissenhall were identified as areas for a future strategic study to promote the development of a planned sustainable mixed-use urban development area. The flood extents generated for Lissenhall as part of the FEMFRAM study show flooding in parts of these lands. A further detailed FRA during the development of a LAP for Lissenhall lands is required by the Fingal CDP to assign appropriate land uses.

The Balheary area in the north of Swords town is already heavily industrialised with development and lies within a significant flood extent for Flood Zone A and B. This area was also identified as being subject to increased flood extent under climate change scenarios due to its proximity to the confluence of the Ward and Broadmeadow Rivers. Any future expansion of the industrial/commercial development lands must be reviewed in terms of flood risk and an appropriately detailed FRA submitted with any planning application. Highly vulnerable development should be avoided in the Flood Zones A and B with less vulnerable development subject to a detailed FRA in Flood Zone A.

Applications for minor development to existing buildings in areas of flood risk such as small extensions and most changes of use must include a flood risk assessment of appropriate detail to demonstrate that they would not have adverse flood risk impacts and employ flood resilient construction.

Future development plans and flood risk assessments should consider the potential of climate change influence on flood extents in accordance with the Guidelines. The worst affected area is the confluence of the Ward and Broadmeadow Rivers with for the MRFS and HEFS respectively.

FRAs should address the site layout with respect to vulnerability of the proposed development type,

finished floor levels should be above the 1% AEP level, flood resilient construction materials and fittings should be considered and the site should not impede existing flow paths or cause flood risk impacts to the surrounding areas.

**Assessment:**

In consideration of the above, the development of Swords as a key town has potential for adverse effects on European sites along a number of pathways which include:

- Habitat loss and or disturbance as a result of the growth ambition;
- Species disturbance through increased resident and or visiting population in particular in the vicinity of sensitive species and habitats such as the watercourses that flow through Swords and connect it to European sites of Broadmeadow/Swords estuary;
- Habitat fragmentation, the Ward and Broadmeadow watercourses are directly linked to the proximally linked European sites;
- Decreased water quality as a result of the growth ambition;
- Increased demand on water supply; and
- In-combination impacts with other key growth settlements and developments associated with the wider MASP area.

Swords is the county town for Fingal and is a town located near to and north of Dublin City, and is the closet town to Dublin Airport. As one of the fastest growing towns in the state, Swords is considered socially and economically important to the wider MASP area including the Dublin airport and the logistics associated with its operation. The town is situated around two watercourses, the Ward and Broadmeadow, both of which provide direct connectivity to the proximal Malahide Estuary SAC and Broadmeadow Estuary SPA. There is a risk of flooding in some areas, some of them in significant flood areas.

There are large residential and commercial developments in and around Swords, and the proposed expansion at a number of key land banks, a number of which are adjacent to the European sites. There is connectivity from all landbanks with European sites via the network of watercourses. The delivery of greenfield development, some of which are within flood plains will limit some development.

Despite the urbanisation of Swords whose Landscape Character assessment is ranked as being of medium sensitivity, the ecological potential of the area is considered moderate to high, particularly owing to its proximity and hydrological connectivity to coastal European sites are Malahide estuary/Broadmeadow Swords estuary. A mosaic of habitats are known from around Swords and the occurrence of important watercourses along which linear greenbelts have been developed as well as old demesne woodland adds to the habitat diversity. Proposed developments will place further pressures on species corridors and could lead to coastal squeeze, particularly as increased recreational pressures from increased residents are considered.

The continued population and economic growth in the Swords area will result in increased demand on water supply. In terms of waste water, the Broadmeadow Estuary is designated as a Nutrient Sensitive Area and as such is sensitive to further nutrient inputs and has little to no assimilative capacity. It is noted that the Swords wastewater treatment plant caters for an agglomeration of 60,000 PE (as of 2016, EPA) with capacity of 90,000 PE currently/by 2021. As the load in 2017 was 56,920 PE (Irish Water), the plant is therefore operating well within capacity. Given the sensitivity of the receiving environment future growth could put pressure on European sites and their qualifying features.

Due to Swords location within the MASP region as well as other key coastal settlement, there is potential for in-combination impacts with key growth settlements as well as the MASP region, in the form of multiple pressure points on coastal European sites.

**Mitigation Measures:**

Phasing of services and development in terms of growth and settlement is essential to avoid adverse

impacts on the integrity of the Natura 2000 network.

Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.

In considering specific developments for the Swords area, it is important that consideration of the wider MASP objectives, which may not be under the control of the Local Authority, is taken on board, particularly with respect to in-combination impacts.

In order to meet the increased demands on the water supply and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of existing drinking water sources (e.g. hydromorphological pressures).

A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of sites and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.

Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.

## Maynooth

### Key Constraints:

- SAC: Rye Water Valley/Carton (near the NE settlement boundary)
- pNHA: Royal Canal; Rye Water Valley/Carton (near the NE settlement boundary)
- Contribution to ecological networks – very low/ none
- Forestry: adjacent to NE boundary/ Carton Demesne (long-established, not ancient)
- Terrestrial biodiversity: low
- Landscape Character Area: Northern Lowlands (low sensitivity); South East Lowlands (high sensitivity) – north of the town
- Aquifer vulnerability: moderate to high
- WFD River Status: R. Lyreen, R. Rye Water – both Poor
- WFD River Risk: At Risk
- WWTP: Lower Liffey Valley; Plant Compliance: Pass; Design Capacity: 150,000 PE; Agglomeration Served: 126,000 PE (2016 EPA) 108,248 PE (2017 Irish Water)

### Flood Risk Summary:

Flood zones would indicate that Maynooth can expand to the North West and West. It is naturally constrained to the north and south by the motorway and the River Ryewater respectively. Maynooth town centre properties along the banks of the Lyreen river are susceptible to flooding. Zoning in the town centre should take this into consideration and carry out Justification Tests where appropriate.

The areas within lands zoned for future residential, educational and commercial developments identified within the predicted Flood Zone A & B require site specific flood risk assessments to ensure no adverse flood risk impacts. The Justification Test applies to applications for future residential and commercial development.

Future development plans and flood risk assessments should consider the potential of climate change influence on flood extents in accordance with the Guidelines. An assessment of climate and catchment changes shows Maynooth to be moderately vulnerable to the increases as modelled in the mid-range future scenario and highly vulnerable to the increases as modelled in the high end future scenarios. Adaptation of the proposed measures would require significant additional length and height (by circa 0.5m) of hard defences to maintain the level of protection as provided by the

proposed measure. Future monitoring, and subsequent implementation of other measures such as Natural Flood Risk Management Measures, may be adopted to assist in identifying and off-setting the impacts of climate change.

Applications for minor development to these existing buildings in areas of flood risk such as small extensions and most changes of use must include a flood risk assessment of appropriate detail to demonstrate that they would not have adverse flood risk impacts and employ flood resilient construction FRAs should address the site layout with respect to vulnerability of the proposed development type, finished floor levels should be above the 1% AEP level, flood resilient construction materials and fittings should be considered and the site should not impede existing flow paths or cause flood risk impacts to the surrounding areas.

**Assessment:**

In consideration of the above, the development of Maynooth as a Key Town that has potential for adverse effects on European sites along a number of pathways. These pathways include:

- Habitat loss and or disturbance as a result of the growth ambition;
- Species disturbance through increased resident and visiting population in particular in the vicinity of sensitive species and habitats;
- Habitat fragmentation - the Royal Canal pNHA is located to the south of Maynooth alongside the railway line. The Rye Water Valley/Catron SAC is located to the north east of the town;
- Decreased water quality as a result of the growth ambition;
- Increased demand on water supply; and
- In-combination impacts with other key growth settlements.

The university town of Maynooth is also a commuter settlement serving the greater Dublin area. Its ecological biodiversity is ranked as low, despite the presence of the Royal canal and two watercourses the Lyreen and Ryewater/Catron, the second of which is a European site supporting ground water dependant habitats and species.

There is reliance of vehicular transport although support for commuter travel has been identified as being important. Support for transport such as the DART expansion is suggested along existing routes, no definitive routings have been finalised. Thus loss or fragmentation of habitats particularly in greenfield sites cannot be ruled out. Through supporting improvements in transport infrastructure, it is intended that it would potentially enable further growth in Maynooth. This could also result in loss of habitat as well as fragmentation to or disturbance of species corridors.

Population growth within Maynooth could also increase demand for water supply and therefore increase abstractions leading to changes/pressures on existing hydrological/hydrogeological regimes should the phasing of services not be aligned with growth and settlement.

Both of the rivers flowing through the town, the Lyreen and Rye Water, are at Poor WFD status and At Risk of not meeting WFD objectives. Wastewater is treated as part of the Lower Liffey Valley Regional Sewerage Scheme, which is currently operating within its design capacity and passing compliance standards. However, as this scheme serves a number of agglomerations, the accumulated growth of several settlements could put pressure on the receiving environment. It is noted that the primary emission point is located in another town, however there is a storm water overflow to the Rye Water, and further population growth in Maynooth, and other towns, could lead to cumulative impacts.

The Rye Water/Catron SAC intersects with the MASP region downstream. There is potential for in-combination impacts with other Key Towns in the form of multiple pressure points on interrelated European sites.

**Mitigation Measures:**

The primary emission point for the Maynooth wastewater is elsewhere as part of the Lower Liffey Valley Regional Sewerage Scheme. However there is storm water overflow to the Rye water, a river whose WFD status is poor and at risk. Increasing population growth in Maynooth should be planned on a phased basis in collaboration with Irish Water and the local authority to ensure that the assimilative capacity of the receiving environment is not exceeded and that increased wastewater discharges from population growth does not contribute to cumulative degradation of water quality.

Phasing of services and development in terms of growth and settlement is essential to avoid adverse impacts on the integrity of the Natura 2000 network.

Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.

In order meet the increased demands on the water supply and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network, due consideration in consultation with Irish Water should be given to the suitability of existing drinking water sources (e.g. hydromorphological pressures).

A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.

Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.

**Bray****Key Constraints:**

- SAC: Bray Head; Ballyman Glen
- pNHA: Bray Head; Ballyman Glen, Dargle River Valley, Great Sugar Loaf to the W/SW of the town
- Annex I habitats: tidal mudflats; wet heath outside and to SW of the town
- Salmonid River: River Dargle
- Contributes to ecological networks
- Some forestry
- Architectural heritage
- 1 x discharge licence: Starrus EcoHoldings Ltd. in Fassaroe
- Historic mines: Ballycorus (incl. Rathmichael; Barnaderg)
- 3 x IPPC licenses: AO Smith Electric Motors; Alert Packaging; Nypro Ltd.
- 3 x landfill sites: in/near Fassaroe
- Landscape Character Area: Bray Environs Masterplan (Low Sensitivity)
- Aquifer sensitivity: low; some med-high in centre, SE and SW of Bray
- WFD River status: R. Dargle – Poor at M1 crossing/entering Bray; improves to Good downstream and to coast; Dargle Estuary – Unassigned; Killiney Bay coastal water body – High status
- WFD River risk: R. Dargle – At Risk entering Bray, improves to Not at Risk downstream; Dargle Estuary – Review; Killiney Bay – Not at Risk
- WWTP: Shanganagh; Plant Compliance: Not Available (EPA); Design Capacity: 186,000 PE;

### Agglomeration Served: 129,011 PE (2017 Irish Water)

#### **Flood Risk Summary:**

Flood Zones from the SFRA Bray Development Plan were reviewed as part of the RFRA. Flood extents for Bray are only partially included on floodinfo.ie website due to the ongoing flood defence works. The remaining flood extents for Bray along the river Dargle are currently being updated and will be added to the website when completed. Bray historically has experienced both coastal and fluvial flooding. Beach nourishment in the early 2000s has been extremely effective to protect the seafront area and there is only limited predicted flooding in the MRFS scenario. The main source of fluvial flooding is the River Dargle with some low probability flooding along the Newcourt Stream. Wicklow County Council has already undertaken a comprehensive SFRA and recognises the risk of flooding in low lying areas of the River Dargle valley. Zonings and Justification Tests have been carried out where appropriate. The SFRA should be reviewed following completion of the flood zone mapping recognising the residual to zonings that are defended from the 1% AEP event. Development in Bray town will largely be confined to infill development as it is already well developed and constrained geographically by the hills surrounding it. The main focus of future development will be in the Fassaroe area which is situated on a hill side and is free from any fluvial flooding.

Identification of strategic sites for regeneration to ensure Bray achieves growth targets should be carried out in accordance with the Guidelines specifically circular PL02/2014 (August 2014). The circular specifically addresses regeneration areas and flood risk management of their development. The town centre areas are not at risk from fluvial flooding, but an assessment of pluvial flooding should still be undertaken. Any urban regeneration in the defended area of the River Dargle (e.g. Golf Course and Harbour area) should still set minimum finished floor levels above the 1% and 0.1% AEP levels depending on the type of property and its flood risk category.

The areas within lands zoned future residential and commercial developments identified within the predicted Flood Zone A & B require site specific flood risk assessments to ensure no adverse flood risk impacts. The Justification Test applies to applications for future residential and commercial development.

Existing residential and mixed use developments adjacent to the River Dargle are zoned within the predicted Flood Zones A and B. The flood relief has been completed but a residual risk of flooding should still be considered for FRAs and planning in this area. Hydraulic modelling for the final flood zones is still being undertaken. Future SFRAs and developments should be taken into account the flood zones when completed.

Future development plans and flood risk assessments should consider the potential of climate change influence on flood extents in accordance with the Guidelines.

Applications for minor development to these existing buildings in areas of flood risk such as small extensions and most changes of use must include a flood risk assessment of appropriate detail to demonstrate that they would not have adverse flood risk impacts and employ flood resilient construction FRAs should address the site layout with respect to vulnerability of the proposed development type, finished floor levels should be above the 1% AEP level, flood resilient construction materials and fittings should be considered and the site should not impede existing flow paths or cause flood risk impacts to the surrounding areas.

#### **Assessment:**

In consideration of the above, the continued development of Bray as a Key Town that has potential for adverse effects on European sites along a number of pathways including:

- Habitat loss and or disturbance as a result of the growth ambition;
- Species disturbance through increased resident, and visiting population, in particular in the vicinity of sensitive species and habitats;
- Habitat fragmentation – Bray head SAC – visitor pressure on upland habitat, alteration to water regime resulting in decrease to ground water dependant habitats at Ballyman Glen SAC to the North East of the town; Changes to mature deciduous wooded areas in



proposed development areas;

- Decreased water quality as a result of the growth ambition;
- Increased demand on water supply; and
- In-combination impacts with other key growth settlements.

Bray is a coastal town in north east Wicklow. The River Dargle effectively separates parts of Bray under the control of Wicklow County Council and Dun Laoghaire-Rathdown County Council. For the most part, Bray is located within the administrative boundary of Wicklow. Given its proximity to Dublin city it is a commuter town and is included within the MASP.

Population growth and development in Bray has largely been constrained, namely in relation to geography of the town as well as a lack of investment in public transport and congestion on the M/N11. The RPO calls aims to enhance the town centre functions and increasing employment opportunities coupled with a westward extension of the town to include improvements to public transport links.

The landscape around Bray is characterised as being of low sensitivity. The terrestrial biodiversity is also considered low to moderate but does contribute to the wider ecological network. However, a number of sites of conservation importance surround the town namely Bray Head SAC upland site overlooking the town and Ballyman Glen SAC (and Knocksink wood further afield) with their groundwater-dependant habitats.

The River Dargle, an important salmonid watercourse is the main river flowing through the town and is currently at Poor status where it flows through Bray and partway through the town, improving to Good status at its downstream section as it flows to the estuary. Parts of Bray are subject to flooding although ongoing flood relief works along the lower main channel of the Dargle River is expected to alleviate much of this problem.

Wastewater for the wider area is currently treated at the Shanganagh plant and is operating well within capacity. Development in the town centre will largely be confined to infill development as it is already well developed. The main focus of future development will be in the Fassaroe area which is situated on a hill side and is free from any fluvial flooding. The proposed westward extension of the town, linked to the delivery of key infrastructure including Bray-Fassaroe public transport links could negatively impact upon European sites. Given the sensitivity of the receiving environment however, in particular in respect of Ballyman Glen SAC, future growth and development could put pressure on the integrity of its groundwater dependant habitats. Furthermore, the supply of water for proposed LAP lands in close proximity to Bray area e.g. Old Conna and Woodbrook could be reliant on infrastructural improvements to the Vartry reservoir pipeline which would be routed through Bray area and a new reservoir at Ballyman currently at planning stage.

Bray is integrally associated with the MASP region. There is potential for in-combination impacts with other MASP in the form of multiple pressure points such as delivery of transport infrastructure and housing development on interrelated European sites.

#### **Mitigation Measures:**

Phasing of services and development in terms of growth and settlement is essential to avoid adverse impacts on the integrity of the Natura 2000 network.

Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.

In order meet the increased demands on the water supply and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network, due consideration in consultation with Irish Water should be given to the suitability of existing drinking water sources (e.g. hydromorphological pressures).

A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.

Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.

#### 7.3.4.2 Hinterland Area

##### Navan

###### Key Constraints:

- SAC & SPA: River Boyne and River Blackwater
- NHA: Jamestown Bog
- pNHA: Boyne Woods
- Salmonid River: River Boyne
- Nutrient Sensitive Area: River Boyne (for a distance of 6.5km downstream of the Navan WWTP outfall)
- Contribution to ecological networks
- Forestry
- Terrestrial Biodiversity: Medium-High
- Quarry: Faughan Hill; Slane; Cruicerath; Deerpark
- Windfarm: Burtonstown
- 4 x discharge licenses (Tara Mines; Irish Country Meats; Xratherm Ltd; Adv Environ Services Ltd)
- 2 x IPPC Licenses
- 3 x landfill sites
- Aquifer vulnerability: Moderate – high
- WFD River Risk: Blackwater & Boyne – at Risk
- WFD River Status: moderate
- WWTP: Navan; Plant Compliance: Pass; Design Capacity: 50,000 PE; Agglomeration Served: 36,337 PE (2016 EPA), 37,286 PE (2017 Irish Water)

###### Flood Risk Summary:

Navan town is built on the banks of the River Boyne. The flood risk from the Boyne affects low lying properties within Flood Zones A and B along the Dublin Road. The flood plains of the River Boyne have been zoned as green space and this should be maintained to provide natural flood management for the area. There is additional flood risk in Navan along minor tributaries of the Boyne including the Robinrath, Windtown and Fergantown streams. These streams have some existing residential and proposed zonings within Flood Zones A and B. Navan can expand to the west and north with limited risk of fluvial flooding. Navan is built on hilly terrain so FRAs should consider potential overland flow as a potential source of flooding.

Applications for minor development to existing buildings in areas of flood risk such as small extensions and most changes of use must include a flood risk assessment of appropriate detail to demonstrate that they would not have adverse flood risk impacts and employ flood resilient construction.

Future development plans and flood risk assessments should consider the potential of climate change influence on flood extents in accordance with the Guidelines. An assessment of climate and catchment changes shows Navan to be highly vulnerable to the increases as modelled in the mid-range and high end future scenarios. Adaptation of the proposed measure would require significant additional lengths and heights (circa 1m) of hard defences to maintain the level of protection as

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provided by the proposed measure. Future monitoring, and subsequent implementation of other measures such as Natural Flood Risk Management Measures, may be adopted to assist in identifying and off-setting the impacts of climate change.

FRAs should address the site layout with respect to vulnerability of the proposed development type, finished floor levels should be above the 1% AEP level, flood resilient construction materials and fittings should be considered and the site should not impede existing flow paths or cause flood risk impacts to the surrounding areas.

**Assessment:**

In consideration of the above, the development of Navan as a Key Town has potential for adverse effects on European sites along a number of pathways. These pathways include:

- Habitat loss and or disturbance as a result of the growth ambition.
- Species disturbance through increased resident and or visiting population in particular in the vicinity of sensitive species and habitats;
- Habitat fragmentation, the River Boyne and Blackwater SAC/SPA flows through Navan;
- Decreased water quality as a result of the growth ambition;
- Increased demand on water supply;
- Introduction or spread of invasive species as a result new build and increased activity; and
- In-combination impacts with other key growth settlements.

The River Boyne and River Blackwater SAC and SPA flows through the middle of Navan and the two rivers combine in Navan. Boyne Wood pNHA is also located immediately downstream of Navan town. These areas support a rich aquatic and terrestrial biodiversity and the River Boyne is also designated a salmonid river. Water quality in these rivers is largely moderate as per WFD classifications and the Blackwater is classified At Risk in Navan while a section of the Boyne is Not at Risk flowing through Navan but At Risk immediately downstream. The Boyne is also considered with nutrient sensitive. Biological assessments indicate these areas are slightly polluted.

Navan wastewater treatment plant has passed compliance standards and is currently operating under capacity, with capacity by 2021 remaining at 50,000. There are also 2 IPPC Licenses within the catchment and several discharge licenses registered nearby. Several storm water overflows are noted to discharge to the River Boyne in sections which are Not at Risk of meeting WFD objectives. This section of the Boyne is also a designated Nutrient Sensitive Area under the EPA's Register of Protected Areas, for a distance of 6.5km downstream of the primary discharge outfall of the Navan WWTP. However the primary discharge point is noted to discharge to an At Risk section of the river as it is at Moderate WFD ecological status. Increasing population growth should remain cognisant of the sensitivity of the receiving environment and to ensure that proper planning means that increased wastewater discharges do not contribute to degradation of water quality within the SAC/SPA and pNHA.

Construction of linear road infrastructure such as the distributor road located in the vicinity of the River Boyne, has the potential for short to long term direct and indirect negative effects for all environmental receptors as a result of emissions, habitat loss and disturbance of species, deterioration in air quality and noise disturbance. Robust feasibility studies and site/ route selection are the most effective manner to reduce impacts on the environment from such enhancements and the RSES should require these stages are fully delivered before decisions are made.

Policy supporting natural amenities and recreational activities such as the Boyne Greenway along the canal can be positive, however by its their linear nature, the river acts as important link and stepping stone for biodiversity and act as habitat refuge for species from urbanised areas. Species disturbance through increased visitor pressure in particular in the vicinity of sensitive species and habitats such as the Boyne SAC, SPA, pNHA may disturb wildlife such as otter, feeding and nesting

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birds or aid the spread of invasive species. Increased activity within the waterway can potentially lead to water pollution.

Supporting the Navan 2030 Plan and Navan's role as an employment centre are positive, as well as the development of the regional hospital. As with any development there are also potential negative effects where source impact pathways may exist to connected European Sites e.g. emission of pollutants to water, or the generation of contaminated material may give rise to spread of IAS resulting in loss of/ disturbance to species and habitats.

Population growth within Navan could also increase demand for water supply and therefore increase abstractions leading to changes/pressures on existing hydrological/hydrogeological regimes should the phasing of services not be aligned with growth and settlement.

The River Boyne intersects another regional growth centre identified within the RSES i.e. Drogheda. There is potential for in-combination impacts with other growth settlements in the form of multiple pressure points on interrelated European sites.

**Mitigation Measures:**

The primary emission point for the Navan wastewater treatment plant is noted to discharge to a section of the River Boyne which is at Moderate WFD status and At Risk of not meeting WFD objectives, and is also a designated Nutrient Sensitive River as a result of the wastewater outfall. Increasing population growth should be planned on a phased basis in collaboration with Irish Water and the local authority to ensure that the assimilative capacity of the receiving environment is not exceeded and that increased wastewater discharges from population growth does not contribute to degradation of water quality.

Any development within the River Boyne and Blackwater SAC/SPA and pNHA as part of the Boyne Greenway should consider all likely significant effects. It is noted that the RPO for the extension of the Boyne Greenway state that this is subject to the outcome of the planning process and environmental assessments.

Phasing of services in tandem with growth and settlement is essential to avoid adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network.

In order meet the increased demands on the water supply and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources e.g. hydromorphological pressures.

Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.

A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.

Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.

**Naas****Key Constraints:**

- Proposed Natural Heritage Area (pNHA) – Grand Canal
- Contribution to ecological networks

**Naas**

- Forestry
- terrestrial biodiversity: med-high
- 2 x discharge licenses: Green Isle Foods Ltd; Arrow Group
- 3 x IPPC Licenses
- 2 x Landfill sites (Nephin; Sallins)
- Licensed waste facility (Kerdiffstown)
- Aquifer vulnerability – High
- WFD River Status & Risk: Moderate – Review (Liffey), and Good - Not at risk (Liffey)
- WWTP: Upper Liffey Valley Sewerage Scheme/Oberstown; Plant Compliance: Pass; Design Capacity: 80,000 PE (2016 EPA), 130,000 PE (by 2021, Irish Water); Agglomeration Served: 87,728 PE (EPA 2016), 90,856 PE (2017 Irish Water); EPA Priority Urban Area: non-compliant wastewater collection system, non-compliant with secondary treatment requirements, non-compliant with more stringent treatment requirements under EU UWWT Directive.

**Flood Risk Summary:**

The flood zones and constraints of the M7 motorway indicate that Naas can expand predominantly to the south west. Flood Zones indicate that areas of the town centre and existing residential areas adjacent the Blessington and Dublin Road are at risk from flooding. Industrial zone areas on the outskirts of the town also fall within Flood Zones A and B. A revised Naas LAP is currently ongoing which is assessing the appropriateness of these zones. It should be noted that as acknowledged in the FRMP there is high uncertainty regarding the flood risk in relation to Naas due to poor availability of model calibration events and possible interconnection between fluvial and surface water drainage and canal systems. Prior to the development of this model a cautionary approach should be taken with regards to flood risk and zoning in Naas.

Applications for minor development to existing buildings in areas of flood risk such as small extensions and most changes of use must include a flood risk assessment of appropriate detail to demonstrate that they would not have adverse flood risk impacts and employ flood resilient construction.

Future development plans and flood risk assessments should consider the potential of climate change influence on flood extents in accordance with the Guidelines. An assessment of climate and catchment changes shows Naas to be highly vulnerable to the increases as modelled in the mid-range and high end future scenarios. Adaptation of the proposed measure would require additional lengths and heights of hard defences and the height of the storage structure would need to be increased (by over 1.5m in some parts) to maintain the level of protection as provided by the proposed measure. Future monitoring, and subsequent implementation of other measures such as Natural Flood Risk Management Measures, may be adopted to assist in identifying and off-setting the impacts of climate change.

FRAs should address the site layout with respect to vulnerability of the proposed development type, finished floor levels should be above the 1% AEP level, flood resilient construction materials and fittings should be considered and the site should not impede existing flow paths or cause flood risk impacts to the surrounding areas.

**Assessment:**

In consideration of the above, the development of Naas as a Key Town has potential for adverse effects on European sites along a number of pathways. These pathways include:

- Habitat loss and or disturbance as a result of the growth ambition;
- Species disturbance through increased resident and or visiting population in particular in the vicinity of sensitive species and habitats such as the Grand Canal pNHA;
- Habitat fragmentation, the Grand Canal intersects Naas and is a pNHA;

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- Decreased water quality as a result of the growth ambition;
- Increased demand on water supply; and
- In-combination impacts with other key growth settlements.

The Grand Canal is a man-made waterway flowing through Naas and links to the River Liffey and comprises of a canal channel and banks on either side. It is a pNHA supporting a diverse range of species including Annex II species such as otter and white-clawed crayfish as well as diverse range of flora and fauna. Policy supporting the canal as an amenity feature can be positive, however such sites as the canal can, by their linear nature, act as important links and stepping stones for biodiversity and act as habitat refuge for species threatened by farming as it crosses agricultural lands. Species disturbance through increased visitor pressure in particular in the vicinity of sensitive species and habitats such as the Grand Canal pNHA were the improvements to transport networks such as provision of cycling and walking corridors may disturb wildlife such as otter or feeding and nesting birds.

Small areas of scattered broadleaved and conifer woodland are present in the surrounding areas, as such contribute to ecological networks and have medium to high terrestrial biodiversity. The provision of cycle and walking corridors may have the potential to fragment these habitats and in particular any footbridges /cycle bridges proposed to facilitate transport networks can potentially fragment the linear habitat of the Grand Canal.

The River Liffey flows northwards through the centre of Naas, and is classified as Good WFD status with no current risk. Another section of the River Liffey flows to the west of the town to which the main wastewater treatment plant discharges; this is the Upper Liffey Valley Sewerage Scheme/Oberstown treatment plant just west of the town. It is currently operating over-capacity with the plant designed for 80,000 PE, however current load is 90,856 PE (as of 2017) and has connection issues. Despite overcapacity, waste water is passing standards, however the collection system failed to meet the UWWT Directive's requirements meaning that some of the wastewater is not conveyed to the plant for treatment. As all the wastewater is not treated, the area is deemed to fail the Directive's secondary treatment requirements and, where applicable, the more stringent treatment requirements. Future growth of the town is therefore likely to put significant pressure on the plant and the network. Irish Water have an upgrade project underway to cater for capacity issues and ensure compliance with environmental standards, with planned capacity of 130,000 PE to be delivered by 2021, but upgrades to facilitate this will be subject to the outcomes of the planning process. Currently the plant serves three large catchment areas in Kildare which includes the towns of Naas, Sallins, Clane, Prosperous, Johnstown, Kill, Newbridge, Kilcullen, Athgarven, Carragh and The Curragh. Development should therefore align with planned and approved upgrades to ensure protection of the environment.

Population growth within Naas could also increase demand for water supply and therefore increase abstractions leading to changes/pressures on existing hydrological/hydrogeological regimes should the phasing of services not be aligned with growth and settlement.

The Grand Canal pNHA intersects another Key Town identified within the RSES i.e. Tullamore. There is potential for in-combination impacts with other Key Towns in the form of multiple pressure points on interrelated European Sites.

**Mitigation Measures:**

Population growth targets within the catchment areas being served by the Upper Liffey Valley Sewerage Scheme/Oberstown Wastewater Plant, which includes Naas as well as other towns, should have regard to the status and progress of the planned upgrades to the plant and other network elements, which will be subject to the outcomes of the planning process, to ensure the protection of the environment and water quality.

Phasing of services in tandem with growth and settlement is essential to avoid adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network.

**Naas**

In order to meet the increased demands on the water supply and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources e.g. hydromorphological pressures.

Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.

A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.

Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.

**Wicklow-Rathnew****Key Constraints:**

- SPA: The Murrough, Wicklow Head
- SAC: The Murrough Wetlands; Wicklow Reef
- pNHA: The Murrough, Wicklow Town Sites
- Wildfowl Sanctuary: The Murrough Wetlands
- Salmonid waters: Vartry River, Broad Lough transitional water body
- Ancient woodland: Cronroe; Vale of Clara; Deputy's Pass; The Devil's Glen
- Annex I Habitats: Residual alluvial forests; Estuaries; Old Oak woodlands
- Birdwatch sensitivity – High
- Coastal habitats: saltmarshes
- Forestry – Broadleaved
- FPM – Current status unknown
- Terrestrial biodiversity: med-high
- Woodland habitat: Wet willow-alder-ash woodland
- IPPC Licence: Veba Radiators Limited, The Murrough (licence status surrendered)
- 2 x Landfill sites: Wicklow Waste Disposal
- Aquifer vulnerability: Moderate –High
- Wetlands: saltmarshes
- WFD Coastal and Transitional Water Bodies Risk: Broad Lough - At Risk; Southwestern Irish Sea - Killiney Bay (HA10) - Not at Risk;
- WFD Coastal and Transitional Water Bodies Status: Broad Lough - Moderate; Southwestern Irish Sea - Killiney Bay (HA10) - High;
- WFD River Risk: Rathnew Stream - Not at Risk, Wicklow - Unassigned
- WFD River Status: Rathnew Stream – Good, Wicklow - Unassigned
- WWTP: Wicklow; Plant Compliance: Pass; Design Capacity: 34,000 PE; Agglomeration Served: 17,249 PE (not a Priority Urban Area)

**Flood Risk Summary:**

Wicklow town is physically bordered by the Irish Sea and the hills surrounding the town which has

### Wicklow-Rathnew

influenced its spatial development north westwards towards Rathnew. The mixed use areas of the town centre adjacent to quays lie within Flood Zones A and B along with an industrial zoning adjacent to the Glebe Stream and the railway line. Rathnew neighbourhood centre has a few properties within Flood Zone A and B along with a low-lying industrial zoning adjacent the Wicklow Road.

Applications for minor development to existing buildings in areas of flood risk such as small extensions and most changes of use must include a flood risk assessment of appropriate detail to demonstrate that they would not have adverse flood risk impacts and employ flood resilient construction.

Future development plans and flood risk assessments should consider the potential of climate change influence on flood extents in accordance with the Guidelines. An assessment of climate and catchment changes shows Wicklow, Ashford and Rathnew to be highly vulnerable to the increases as modelled in the mid-range and high end future scenarios. Adaptation to maintain the level of protection as provided by the proposed measure would require increasing the height of the Hard Defence (by circa 1m) and extending their length. It is unlikely that the storage areas can be increased to provide the additional capacity required under the future scenarios. The weir removal proposed to increase channel conveyance would be sufficient for future flows, and the channel would not require further adaptation. Future monitoring, and subsequent implementation of other measures such as Natural Flood Risk Management Measures, may be adopted to assist in identifying and off-setting the impacts of climate change.

FRAs should address the site layout with respect to vulnerability of the proposed development type, finished floor levels should be above the 1% AEP level, flood resilient construction materials and fittings should be considered and the site should not impede existing flow paths or cause flood risk impacts to the surrounding areas.

#### Assessment:

In consideration of the above, the development of Wicklow-Rathnew as a regional growth centre has potential for adverse effects on European Sites along a number of pathways. These pathways include:

- Habitat loss, destruction and/or disturbance as a result of the growth ambition;
- Species disturbance;
- Habitat fragmentation;
- Deterioration in water quality as a result of the growth ambition;
- Increased demand on water supply; and
- In-combination impacts with other key growth settlements.

The RPO to enhance the role and function of Wicklow-Rathnew as a hub for employment, training and education gives rise to the potential for increased diffuse urban pressure on the rivers that run through each of the towns (e.g. misconnections, surface run-off etc.). There are two river water bodies that intersect the Wicklow-Rathnew key growth settlement. Rathnew Stream, which flows through the town of Rathnew, discharges directly to both The Murrough Wetlands SAC and The Murrough SPA, while the Wicklow River discharges directly to The Murrough Wetlands SAC and supports indirect hydrological connectivity to The Murrough SPA. Both rivers support indirect hydrological connectivity to Wicklow Reef SAC and Wicklow Head SPA, located in the Southwestern Irish Sea – Killiney Bay (HA10). Any deterioration in water quality as a result of the expansion has the potential to impact hydrologically connected European Sites.

The Murrough Wetlands SAC is of importance as it is the largest coastal wetland complex on the east coast of Ireland and contains a wide range of habitats, six of which are listed on Annex I of the E.U. Habitats Directive, some of which contain threatened plant species. The Murrough SPA is an important site for both wintering and breeding birds, supporting a variety of species listed on Annex I of the E.U. Birds Directive. The SPA is particularly important for and internationally important



**Wicklow-Rathnew**

wintering population of Light-bellied Brent Goose. In addition, part of The Murrough SPA is a Wildfowl Sanctuary. Wicklow Reef SAC is of high conservation value as it is the only documented example in Ireland of a biogenic reef, supporting a number of uncommon species. Wicklow Head SPA is situated approximately 3 km south of Wicklow town and the occurrence of Peregrine, a species that is listed on Annex I of the E.U. Birds Directive is of note.

The RPO which supports the expansion of Wicklow port and harbour has the potential to impact on the integrity of the identified European Sites, through expansion of commercial berthing and pleasure craft capacity. It is noted that this expansion is subject to a feasibility study which will have particular focus on avoiding adverse impacts on the integrity of European Sites. The expansion could result in a number of impacts such as habitat loss, destruction and/or disturbance, species disturbance and deterioration in water quality, whilst being positive in supporting Wicklow-Rathnew as a tourism hub due to improved accessibility.

Terrestrial biodiversity is considered to be of medium to high value for Wicklow-Rathnew. There are areas of ancient woodland (Cronroe, Vale of Clara, Deputy's Pass and The Devil's Glen), woodland habitat such as wet willow-alder-ash and areas of broadleaved forestry, all of which are located inland of these coastal towns and have the potential to function as ecological corridors. Deputy's Pass Nature Reserve SAC and Vale of Clara (Rathdrum Wood) SAC are both designated for old oak woodlands and are located approximately 7-9 km west of the towns of Wicklow and Rathnew. However it is acknowledged that expansion of this key settlement will be in a north-westerly direction from Wicklow town towards Rathnew. Increasing both the existing population of Wicklow-Rathnew and its potential as a key tourist destination would result in increased footfall in these amenity sites, which could result in potential for adverse impacts on the qualifying interests of the sites, in this case old sessile oak woodland.

It is noted that wastewater is treated near the ports at the Wicklow WWTP which caters for 17,249 PE with a capacity for 34,000 PE and has passed compliance standards. It is not on the EPA's list of Priority Urban Areas. The receiving water body for the agglomeration is Southwestern Irish Sea – Killiney Bay (HA10) which is currently at High status and considered Not at Risk of failing to achieve WFD objectives. Therefore there is capacity within the WWTP to treat additional PE as the population continues to increase in Wicklow-Rathnew as part of the consolidation and regeneration.

Population growth within Wicklow-Rathnew will result in increased demand on water supply and therefore there is potential for increased abstractions leading to changes/pressures on existing hydrological/hydrogeological regimes.

Due to Wicklow-Rathnew's coastal location, there is potential for in-combination impacts with other key growth settlements, in the form of multiple pressure points on interrelated European Sites.

**Mitigation Measures:**

With regard to the enhancement and expansion of Wicklow port and harbour, to expand commercial berthing and pleasure craft capacity, a study will be undertaken on its feasibility, with particular focus on avoiding adverse impacts on the integrity of adjacent European Sites.

Phasing of services in terms of growth and settlement is essential to avoid adverse impacts on the integrity of the Natura 2000 network.

In order to meet the increased demands on the water supply and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources (e.g. hydromorphological pressures).

Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.

A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse

**Wicklow-Rathnew**

effects on the integrity of any European site.

Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.

**7.3.4.3 Outer Region****Longford****Key Constraints:**

- SAC: Brown Bog; ; Lough Forbes Complex ; Lough Ree
- SPA: Ballykenny-Fisherstown Bog; Lough Ree
- NHA: Mount Jessop Bog; Rinn River
- pNHA: Brown Bog; Derrymore Bog; Carrickglass Demesne; Royal Canal; Lough Forbes Complex
- Ancient Woodland: Carrickglass Demense Woods West; Clonguish Wood (Castle Forbes); Lissagernal (Castle Forbes); Gubroe (Castle Forbes)
- Annex I Habitat: Old oak woodlands
- Contribution to ecological networks
- Mixed forestry
- Terrestrial biodiversity – med-high
- Woodland habitats: non-annex
- Aquifer vulnerability: Moderate – High
- Landscape Character Area: Central Corridor (Low Sensitivity)
- Wetlands: in land marshes (i.e. NW of Longford town)
- WFD River Risk: R. Camlin, western side of town Unassigned to Poor Status and At risk; eastern side of town improves to Good status and Not at Risk
- WFD Risk Status: R. Camlin-Bad
- WFD RPA Water Dependent Habitats SAC: Old High bog patterns
- WWTP: Longford; Plant Compliance: Pass; Design Capacity: 20,000 PE; Agglomeration Served: 18,372 PE (2016 EPA), 14,290 PE (2017 Irish Water)

**Flood Risk Summary:**

Longford town spatially can expand to the south, east and north west. The other areas of the town have large flood floodplains on the outskirts which would limit expansion to the north east and west. The largest flood risk on currently zoned land is located in the south west on lands identified for strategic development including the Ballyminion Neighbourhood centre and industrial development zones. Masterplans are proposed for these areas and should include a SFRA to assess the flood risk.

The areas within lands zoned future residential and commercial developments identified within the predicted Flood Zone A & B require site specific flood risk assessments to ensure no adverse flood risk impacts. The Justification Test applies to applications for future residential and commercial development.

At regional scale no significant climate change impact on the fluvial extents was identified however future development plans and flood risk assessments should still consider the potential of climate change influence on flood extents in accordance with the Guidelines. The height of the walls and embankments of the proposed FRMP measures can be increased to facilitate increases in flood risk

due to climate change. The increase conveyance measures will not be easily adaptable to potential future changes.

Applications for minor development to these existing buildings in areas of flood risk such as small extensions and most changes of use must include a flood risk assessment of appropriate detail to demonstrate that they would not have adverse flood risk impacts and employ flood resilient construction FRAs should address the site layout with respect to vulnerability of the proposed development type, finished floor levels should be above the 1% AEP level, flood resilient construction materials and fittings should be considered and the site should not impede existing flow paths or cause flood risk impacts to the surrounding areas.

**Assessment:**

In consideration of the above, the development of Longford as a regional growth centre has potential for adverse effects on European Sites along a number of pathways. These pathways include:

- Habitat loss, destruction and/or disturbance as a result of the growth ambition;
- Species disturbance;
- Habitat fragmentation;
- Deterioration in water quality as a result of the growth ambition;
- Increased demand on water supply; and
- In-combination impacts with other key growth settlements.

The delivery of development on brownfield and infill lands and the densification of Longford town centre give rise to the potential for increased diffuse urban pressure on the river that runs through the town (e.g. misconconnections, surface run-off etc.). The River Camlin flows through the town and is Unassigned in terms of WFD status at through this length of the town. The section of the Camlin immediately upstream of the town is at Good WFD status and considered to be not at risk of failing to achieve WFD objectives, while the section immediately downstream of the town is at Poor WFD status and is considered to be at risk of failing to achieve WFD objectives. This indicates that there is likely influence from pressures in the town of Longford.

Mount Jessop Bog SAC is hydrologically connected to the town however is upstream. It is approximately 3 km from the town to the south, which is a direction for expansion that has not been ruled out based on flood risk. Brown Bog SAC is less than 3 km to the west of the town. There are large floodplains to the west which will limit expansion in that direction.

Lough Forbes Complex SAC and Ballykenny-Fishertown Bog SPA overlap downstream of Longford town and are both intersected by the River Camlin before it joins the River Shannon. Lough Forbes SAC is an important site based on its excellent diversity of habitats, including raised bogs which are rare and threatened. With respect to Ballykenny-Fishertown Bog SPA, at the time of designation it was used by Greenland White-fronted Geese; however there have been no records of this species at the site since 1991.

Lough Ree SAC and SPA are located approximately 12 km south-west of Longford. There is a hydrological connection to the sites which are located downstream of the River Camlin, which joins the Shannon (Upper) prior to reaching Lough Ree. Lough Ree and its adjacent habitats are of major ecological significance, with some of the woodlands surrounding the lake being the some of the best examples of the habitat in Ireland. The site is also of high ornithological importance for both wintering and breeding birds. Parts of Lough Ree SPA are Wildfowl Sanctuaries.

Wastewater is currently treated in the Longford WWTP and is operating within its plant design capacity of 20,000 PE. It has passed compliance standards. Effluent emissions are to the River Camlin which has Unassigned WFD status through the town. The section of the River Camlin upstream of the town is at Good WFD status and is not considered to be at risk of not achieving WFD objectives, however immediately downstream of the town the river is at Poor WFD status and is considered to be at risk of not achieving WFD objectives.

Terrestrial biodiversity is considered to be of medium to high value for Longford. There are many

examples of ancient woodland, forestry, wetlands habitats such as inland marshes and bog habitat in the county which contribute to ecological networks.

Population growth within Longford will result in increased demand on water supply and therefore there is potential for increased abstractions leading to changes/pressures on existing hydrological/hydrogeological regimes.

Due to its central location, there may be potential for in-combination impacts with other key growth settlements, in the form of multiple pressure points on interrelated European Sites.

#### **Mitigation Measures:**

Phasing of services in terms of growth and settlement is essential to avoid adverse impacts on the integrity of the Natura 2000 network.

In order meet the increased demands on the water supply and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources (e.g. hydromorphological pressures).

Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.

A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.

Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.

### **Mullingar**

#### **Key Constraints:**

- SAC: L. Owel; Wooddown Bog; L. Ennell; Scragh Bog;
- SPA: L. Ennell; L. Owel
- NHA: Wooddown Bog; Milltownpass Bog
- pNHA: Grand Canal; L. Ennell; L. Sheever; L. Owel; Walshestown Fen
- Ancient woodland: L. Slevin's Wood; Gaybrook Demense; Cooksborough
- Contributions to ecological networks
- Mixed forestry
- Terrestrial biodiversity – med-high
- Woodland habitat: Alluvial forest - Wet willow-alder-ash; Bog woodland; Non-annex woodland
- Quarries & Pits: Knightswood; Knockmant; Heathstown; Mullingar
- 6 x Discharge Licenses
- 3 x IPPC Licenses: Devon Ln Ltd; Penn Racquet Sports; Brosna Paints Ltd
- 5 x landfill sites
- 3 x Aquifer vulnerability: Moderate – High
- Wetlands
- Nutrient Sensitive Area: Brosna River
- WFD River Risk: at risk (e.g. R. Brosna; Rivertown)

**Mullingar**

- WFD River Status: generally bad
- WWTP: Mullingar; Plant Compliance: Pass; Design Capacity: 55,000 PE; Agglomeration Served: 26,689 PE (2016 EPA), 27,091 PE (2017 Irish Water)

**Flood Risk Summary:**

The spatial growth of Mullingar expands predominantly in all directions from the centre of the town. Midlands Regional Hospital is located north-west of the town centre. Open space to the northeast and south of Mullingar and agricultural, sporting recreational and business/technology park lands to the northeast of Mullingar are within the extents of Flood Zones A and B. It is indicated thus far that future residential and commercial growth is continuing around these locations.

The areas within lands zoned for future residential and commercial developments are outside of the predicted Flood Zone A and B extents.

Existing open space, agricultural and sporting recreational zoned lands in Mullingar are located within predicted Flood Zones A and B. Applications for major development within these areas required a site specific flood risk assessment to ensure no increase in flood risk to the development and surrounding areas. The Justification Test applies to application for major development in areas of flood risk.

The CFRAM MRFS food extents show an increase in predicted flood extents within the town centre between Pearse Street and Friars Mill Road. Future development plans and flood risk assessments should consider the potential of climate change on flood extents in accordance with the Guidelines.

Applications for minor development to existing buildings in areas of flood risk such as small extensions and most changes of use must include a flood risk assessment of appropriate detail to demonstrate that they would not have adverse flood risk impacts and employ flood resilient construction.

FRAs should address the site layout with respect to vulnerability of the proposed development type, finished floor levels should be above the 1% AEP level, flood resilient construction materials and fittings should be considered and the site should not impede existing flow paths or cause flood risk impacts to the surrounding areas.

**Assessment:**

In consideration of the above, the development of Mullingar as a Key Town has potential for adverse effects on European sites along a number of pathways. These pathways include:

- Habitat loss and/or disturbance as a result of the growth ambition;
- Species disturbance through increased resident and or visiting population in particular in the vicinity of sensitive species and habitats;
- Habitat fragmentation, the pNHA Royal Canal intersects Mullingar;
- Decreased water quality as a result of the growth ambition;
- Increased demand on water supply; and
- In-combination impacts with other key growth settlements.

The Royal Canal is a man-made waterway flowing through Mullingar and links to the River Liffey at Dublin and the River Shannon near Tarmonbarry. It comprises of a canal channel and banks on either side. The main water supply is from Lough Owel (also an pNHA, SAC and SPA) via a feeder channel into the canal at Mullingar. It is a pNHA supporting a diverse range of species including Annex II species such as otter as well as diverse range of flora and fauna. Lake waterbodies dominate the surrounding landscape including two large lake waterbodies, Lough Owel and Lough Ennell are located to the immediate north-west and south-west of Mullingar and are designated as an SAC, SPA and pNHA a smaller Lough Sheever Fen/Slevin's Lough Complex pNHA to the north-east. Areas of peaty subsoils surround Mullingar and a number of bogs designated within the Natura 2000 network in the immediate vicinity of Mullingar including Wooddown Bog SAC, Scragh Bog SAC, Wooddown Bog NHA; Milltownpass Bog NHA. There is also an area of long established woodland notably around

## Mullingar

Lough Sheever Fen/Slevin's Lough Complex pNHA located just to the west of the settlement. As such the area has significant contributions to ecological networks and contains med-to high terrestrial biodiversity.

Policy supporting natural amenities and recreational opportunities such as the Galway to Dublin Greenway along the canal at Mullingar can be positive; however sites, such as the canal can, by their linear nature, act as important links and stepping stones for biodiversity and act as habitat refuge for species threatened by farming as it crosses agricultural lands. Some tourism activities, particularly those that promote water-based activities, may give rise to indirect long-term negative impacts particularly in the context of the QI and SCI for Lough Owel and Lough Ennell. For instance, increasing the amenity potential of these lakes may cause increase pollution emissions to these waters from boating. Invasive alien species (IAS) have been recorded in both lakes e.g. the zebra mussel, which can be spread by human activities. IAS are a significant threat to the health of the European Sites.

The development and regeneration of publicly owned land banks in the town can be broadly positive in preventing urban sprawl pushing towards the neighbouring European Sites and where regeneration provides the opportunity to manage uncontrolled run-off and/ or contamination issues and generally improve the quality of the receiving environment. As with any development there are also potential negative effects where regeneration or infill development results source impact pathways to connected European Sites e.g. emission of pollutants to water, or the generation of contaminated material may give rise to spread of IAS resulting in loss of/ disturbance to species and habitats. The development and expansion of the Midland Regional Hospital also has the potential for negative effects where impact pathways exist to European Sites.

The River Brosna has a current WFD status of Poor and is At Risk. Waste water is treated in the Mullingar wastewater facility currently catering for 27,091 PE in 2017, it is well within plant design capacity of 55,000 and has passed compliance standards. However the Brosna River is designated as a Nutrient Sensitive River for the section downstream of the sewage outfall. The plant is not listed as a Priority Area for wastewater.

Population growth within Mullingar could also increase demand for water supply and therefore increase abstractions leading to changes/pressures on existing hydrological/hydrogeological regimes should the phasing of services not be aligned with growth and settlement.

The Royal Canal pNHA intersects other Key Towns identified within the RSES i.e. Longford and Maynooth. There is potential for in-combination impacts with other Key Towns in the form of multiple pressure points on interrelated European Sites.

### Mitigation Measures:

Mullingar treatment is noted to be currently operating within capacity. Increasing population growth should be planned on a phased basis in collaboration with Irish Water and the local authority to ensure that the assimilative capacity of the receiving environment is not exceeded and that increased wastewater discharges from population growth does not contribute to degradation of water quality.

Phasing of services in tandem with growth and settlement is essential to avoid adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network.

In order meet the increased demands on the water supply and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/ or existing drinking water sources e.g. hydromorphological pressures.

Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.

A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a

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distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.

Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.

**Tullamore****Key Constraints:**

- Ancient Woodlands: Ballyduff Wood; Hands Wood; Charleville N & S; Clonad Wood
- Annex I Habitats: Residual alluvial forests
- Birdwatch sensitivity: med-low
- Contribution to ecological networks
- Mixed Forestry
- FPM: Catchments with previous records of Margaritifera, but current status unknown
- NHA: Screggan Bog; Hawkswood Bog; Daingean Bog
- pNHA – Kilcormac Esker, Pallas Lough, Charleville Wood, Clonard Wood, Grand Canal, Ballyduff Esker, Ballyduff Wood, Clara Bog
- SAC: Charleville Wood; Clara Bog; Raheenmore Bog; Split Hills And Long Hill Esker
- Terrestrial biodiversity: med-high
- Woodland habitats: non-annex
- Quarries & Pits: Ballykilmurry Pit; Derryarkin Pit; Extractive industry register for Tullamore and Mullingar
- 3 x Wind Farm: Mountlucas (x 2); Leabeg;
- 8 x Discharge licenses
- 3 x IPPC Licenses: Castle Paints; William Grant & Sons Irish Manufacturing Ltd; Bord na Mona Energy Ltd Leabeg
- 3 x landfill sites: Peat Ash Ltd (Shannongbridge); Derryclure; Kilcormac
- Aquifer vulnerability: Moderate – High
- Wetlands
- Nutrient Sensitive Area: River Tullamore (for a distance of 0.5km downstream of Tullamore WWTP outfall)
- WFD River Status: generally bad
- WFD River risk: at risk
- WWTP: Tullamore; Plant Compliance: Pass; Design capacity: 45,000 PE; Agglomeration Served: 19,269 PE (2016 EPA), 21,571 PE (2017 Irish Water); Priority Urban Area for wastewater (wastewater identified as the primary pressure on a river/ lake)  
WWTP: Mucklagh; Plant Compliance: Pass; Design Capacity: 1,100 PE (2016 EPA); Agglomeration

**Flood Risk Summary:**

The datasets received as part of this assessment did not include Flood Zones for Tullamore therefore the CFRAM flood extents were used for the RFRA. Future development plans for Tullamore should use flood zones to accurately categorise the residual risk to properties in the town centre which were defended as part of the 2008 Tullamore Flood Relief Scheme. The flood extents for Tullamore

### Tullamore

are largely confined to the eastern and western parts of the town. The Flood Zone A extents appear to be mostly on existing greenfield sites with some existing commercial and residential properties in Flood Zone B. The areas in Flood Zone A and currently zoned for residential and industrial zonings. These zones should be reviewed as part of the next development plan to be assessed if they are still appropriate. There is lots of other land available to employ the principle of avoidance.

Applications for minor development to existing buildings in areas of flood risk such as small extensions and most changes of use must include a flood risk assessment of appropriate detail to demonstrate that they would not have adverse flood risk impacts and employ flood resilient construction.

A review of zonings in Flood Zones A and B in the east and west of the town should be undertaken during the development plan process.

Future development plans and flood risk assessments should consider the potential of climate change influence on flood extents in accordance with the Guidelines. There are no MRFS or HEFS flood extents available for Tullamore. These should be generated as part any future SFRA for the town.

FRAs should address the site layout with respect to vulnerability of the proposed development type, finished floor levels should be above the 1% AEP level, flood resilient construction materials and fittings should be considered and the site should not impede existing flow paths or cause flood risk impacts to the surrounding areas.

#### Assessment:

In consideration of the above, the development of Tullamore as a Key Town that has potential for adverse effects on European sites along a number of pathways. These pathways include:

- Habitat loss and or disturbance as a result of the growth ambition;
- Species disturbance through increased resident and or visiting population in particular in the vicinity of sensitive species and habitats;
- Habitat fragmentation, the Grand Canal pNHA intersects Tullamore and Charleville Wood SAC, NHA borders the town;
- Decreased water quality as a result of the growth ambition;
- Increased demand on water supply; and
- In-combination impacts with other key growth settlements.

Tullamore is situated amongst several natural landscapes and the area contributes highly to biodiversity. Charleville Wood SAC and pNHA sits immediately the West of Tullamore encompassing annex ancient woodland habitat and further long established woodland is located to the west of Tullamore. Tullamore is bordered by several bog lands, these include Screggan Bog, Hawkwood Bog and Daingean Bog NHAs, and Clara Bog and Raheenmore Bog SACs, in addition to several pNHA esker landscapes remnant of previous glacial activity. As such the area has significant contributions to ecological networks and contains med-to high terrestrial biodiversity.

The Grand Canal is a man-made waterway flowing through Tullamore and links to the River Liffey and comprises of a canal channel and banks on either side. It is a pNHA supporting a diverse range of species including Annex II species such as otter and white-clawed crayfish as well as diverse range of flora and fauna. Policy supporting natural amenities and recreational activities such as the Blueway and Greenway along the canal can be positive, however by its their linear nature, the canal acts as important link and stepping stone for biodiversity and act as habitat refuge for species threatened by farming as it crosses agricultural lands. Species disturbance through increased visitor pressure in particular in the vicinity of sensitive species and habitats such as the Grand Canal pNHA may disturb wildlife such as otter, feeding and nesting birds or aid the spread of invasive species. Increased boating activity within the waterway can potentially lead to water pollution.

The Tullamore River flows west through the town and is a tributary of the Shannon; this section is at



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Poor WFD status and therefore At Risk according to WFD classifications. There is significant flood risk along the watercourse in eastern areas of the town i.e. Cloncollog with extension of the floodplain outside the settlement. Wastewater is treated in the Tullamore waste water facility currently catering for 21,571 PE as of 2017. While the plant is operating with its design capacity, the EPA lists it as a Priority Urban Area as the plant is the primary pressure on the Tullamore River. It should also be noted that the plant is a pressure on the Tullamore River for a distance of 0.5km downstream of the outfall, and this section is designated as a Nutrient Sensitive Area. Future growth will therefore put pressure on the assimilative capacity of the receiving water environment. The Mucklagh WWTP is noted to serve the Mucklagh Agglomeration, which is a settlement immediately adjacent to the Tullamore settlement envelope. This plant is current operating within capacity and passed compliance standards.

Population growth within Mullingar could also increase demand for water supply and therefore increase abstractions leading to changes/pressures on existing hydrological/hydrogeological regimes should the phasing of services not be aligned with growth and settlement.

The Grand Canal pNHA intersects another Key Town identified within the RSES i.e. Naas. There is potential for in-combination impacts with other Key Towns in the form of multiple pressure points on interrelated European Sites.

**Mitigation Measures:**

The primary emission point for the Tullamore wastewater treatment plant is noted to discharge to a section of the River Tullamore which is at Poor WFD status and At Risk of not meeting WFD objectives, and is also a designated Nutrient Sensitive River as a result of the wastewater outfall. Increasing population growth should be planned on a phased basis in collaboration with Irish Water and the local authority to ensure that the assimilative capacity of the receiving environment is not exceeded and that increased wastewater discharges from population growth does not contribute to degradation of water quality.

Phasing of services in tandem with growth and settlement is essential to avoid adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network.

In order meet the increased demands on the water supply and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources e.g. hydromorphological pressures.

Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.

A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.

Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.

**Portlaoise****Key Constraints:**

- SAC: Ballyprior Grassland; River Barrow and River Nore
- SPA: Slieve Bloom Mountains
- Ancient Woodland: Dunamase Woods; Kilteale Hill; Kylebeg

**Portlaoise**

- Contribution to ecological networks
- Annex I Habitat: Great Heath
- Mixed forestry
- FPM: Catchments of SAC populations listed in S.I. 296 of 2009 (i.e. highly sensitive); other areas status unknown
- NHA: Clonreher Bog
- pNHA: Ridge of Portlaoise; Dunamase Woods; The Great Heath of Portlaoise; Stradbally Hill; Grand Canal
- Terrestrial biodiversity: med-high
- Woodland habitats: non-annex
- 3 x Discharge licences
- 5 x IPPC licences
- Quarries & Pits: Downs; Lea Beg; Killeaney Quarry; Boley Pit
- Landfill site: Clonsoughy Landfill
- Aquifer vulnerability: Moderate – High
- Nutrient Sensitive Area: River Triogue (downstream of Portlaoise WWTP sewage outfall, to confluence with the River Barrow)
- WFD River Risk: R.Triogue; Tributary Triogue Cush Bridge; R. Blackwater - all At Risk
- WFD River status: generally Bad
- WWTP: Portlaoise; Plant Compliance: Pass; Design Capacity: 39,000 PE (EPA, Irish Water), 28,587 PE (2016 EPA), 29,979 PE (2017 EPA); not a Priority Urban Area.

**Flood Risk Summary:**

Portlaoise has been developed on the banks of four watercourses the Triogue, Borris, Clonmanin and Togher. They are tributaries of the River Barrow. There are areas along the banks of each watercourse that lie within Flood Zones A and B including the National Enterprise Park, commercial and residential properties along the Abbeyleix Road, Summerhill Lane and existing residential areas adjacent to Colliers Lane. The town has space between the four watercourses to carry out the regeneration RPO without increasing the flood risk to residents.

Applications for minor development to existing buildings in areas of flood risk such as small extensions and most changes of use must include a flood risk assessment of appropriate detail to demonstrate that they would not have adverse flood risk impacts and employ flood resilient construction.

Future development plans and flood risk assessments should consider the potential of climate change influence on flood extents in accordance with the Guidelines. Flood extents for the Mid-Range and High-End Future Climate Change scenarios identified a number of additional properties likely to be impacted. Adaptation of proposed measures would require additional lengths and heights of hard defences and major structural works required for the storage method to maintain the required Standard of Protection. Whilst the proposed measure has poor adaptability other measures including Natural Flood Risk Management Measures may be adopted to monitor and adapt the scheme.

FRAs should address the site layout with respect to vulnerability of the proposed development type, finished floor levels should be above the 1% AEP level, flood resilient construction materials and fittings should be considered and the site should not impede existing flow paths or cause flood risk impacts to the surrounding areas.

**Assessment:**

In consideration of the above, the development of Portlaoise as a regional growth centre has

## Portlaoise

potential for adverse effects on European Sites along a number of pathways. These pathways include:

- Habitat loss, destruction and/or disturbance as a result of the growth ambition;
- Species disturbance;
- Habitat fragmentation;
- Deterioration in water quality as a result of the growth ambition;
- Increased demand on water supply; and
- In-combination impacts with other key growth settlements.

The delivery of regeneration and development in Portlaoise gives rise to the potential for increased diffuse urban pressure on the rivers that run through each of the towns (e.g. misconnections, surface run-off etc.). The River Triogue flows through the town and ranges between Poor and Bad WFD status. The river is considered to be at risk of failing to achieve WFD objectives. The river flows north where it joins the River Barrow, therefore ultimately discharges to the River Barrow and River Nore SAC. Prior to reaching the SAC, there is a designated Nutrient Sensitive Area as a result of a sewage outfall from the WWTP.

In relation to the RPO which supports the transition of Portlaoise to a low carbon town centre through reducing car use and promoting walking and cycling, any potential impacts that could arise are likely to be positive, e.g. improvements in air quality. The promotion of this RPO may also result in the construction of new or improvement of existing paths, cycle routes and walkways.

The River Barrow and River Nore SAC passes through eight counties and many major towns along its length. It is of considerable conservation significance due to the habitats and populations of plant and animal species that are listed on Annexes I and II of the E.U. Habitats Directive. It is also of high conservation value for the populations of bird species that use it. The site also encompasses several Red Data Book plant species and the Nore Freshwater pearl mussel; however the latter is limited to a 10 km stretch of the River Nore. The main threats to the site include high inputs of nutrients to the river system including from, *inter alia*, WWTPs. As the water quality of the site remains vulnerable, it is essential that sewage be adequately treated prior to discharge. Drainage activities in the catchment can also lead to flash flood events, whilst dredging of the system poses additional threats.

Ballyprior Grassland SAC is located approximately 10 km south-east of Portlaoise, separated from the town by the M7 motorway. It is an important example of orchid-rich calcareous grassland, a habitat that is listed on Annex I of the E.U. Habitats Directive. Slieve Bloom Mountains SPA is located just over 6 km north-east of the border of the town. The site is of ornithological importance due to its provision of excellent nesting and foraging habitat for breeding Hen harrier, and is one of the top sites in the country for the species. Expansion of the town could impact on the bog, heath and open canopy forestry which this species requires. Part of the SPA is also a statutory nature reserve.

The primary emission point for the Portlaoise wastewater treatment plant is noted to discharge to a section of the River Triogue which is at Poor WFD status and at risk of failing to achieve WFD objectives; the downstream section of river is also a designated Nutrient Sensitive River as a result of the wastewater outfall. Wastewater is treated in the Portlaoise WWTP currently catering for 29,979 PE as of 2017, and is therefore operating within its design capacity. However it should also be noted that the plant is a pressure on the Triogue River downstream of the sewage outfall as far as it's confluence with the River Barrow, with this section being designated as a Nutrient Sensitive Area. Future growth will therefore put pressure on the assimilative capacity of the receiving water environment. Portlaoise is not considered to be a Priority Urban Area.

Terrestrial biodiversity is considered to be of medium to high value for Portlaoise. Ancient woodland is recorded at Dunamase Woods, Kilteale Hill and Kylebeg. Additional sites of value include the Ridge of Portlaoise pNHA and County Geological Site running through the settlement, The Great Heath of Portlaoise (Annex I habitat) and Dunamase Woods pNHAs to the East, and Clonreher Bog

**Portlaoise**

NHA to the North-West. Landscape character is classed as high within the town centre and low elsewhere with scattered high character areas outside the immediate settlement. These areas contribute widely to ecological networks and contain extensive peat bog environments.

Population growth within Portlaoise will result in increased demand on water supply and therefore there is potential for increased abstractions leading to changes/pressures on existing hydrological/hydrogeological regimes.

Due to the location of Portlaoise which is hydrologically linked to the main channel of the River Barrow, there is potential for in-combination impacts with other key growth settlements, in the form of multiple pressure points on interrelated European Sites.

**Mitigation Measures:**

Phasing of services in terms of growth and settlement is essential to avoid adverse impacts on the integrity of the Natura 2000 network.

With regard to the management of wastewater, increasing population growth should therefore be planned on a phased basis in collaboration with Irish Water and the local authorities to ensure that the assimilative capacity of the receiving environment is not exceeded and that increased wastewater discharges from population growth does not contribute to degradation of water quality.

In order meet the increased demands on the water supply and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources (e.g. hydromorphological pressures).

Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.

A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.

Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.

**Carlow (Graiguecullen)****Key Constraints:**

- SAC: River Barrow and River Nore
- pNHA: Oakpark, Cloghrick Wood
- Contribution to ecological networks
- Forestry: broadleaved
- FPM – Status unknown
- Terrestrial biodiversity: medium-high
- Woodland habitat: alluvial forest - Wet willow-alder-ash; non-Annex mixed broadleaved
- Wind Farm: Tullow Mushroom Growers Ltd
- Quarries & pits: Clongrennane
- Historic quarry: Rossmore (Old) Leinster Coalfield
- 2 x IPPC Licences: Braun Oral-B; Irish Sugar
- Aquifer vulnerability: Moderate-High

- WFD River Risk: R. Barrow and R. Burren – At Risk
- WFD River Status: R. Barrow – Moderate, R. Burren – Poor
- Nutrient Sensitive Area: River Barrow (downstream of Portarlinton sewage outfall, to Graigueamanagh Bridge)

WWTP: Carlow; Plant Compliance: Pass; Design Capacity: 36,000 PE (EPA, Irish Water); Agglomeration Served: 30,636 PE (2016 EPA), 34,000 PE (2017 Irish Water); not a Priority Urban Area

#### **Flood Risk Summary:**

Graiguecullen has no significant residential development lying within Flood Zones. The main flood risk for Carlow town lies within the Carlow County Council administrative area. A SFRA has already been undertaken for the Carlow Town LAP and sites at risk of flooding were assessed and passed Justification Tests where appropriate. Graiguecullen can develop spatially westwards to avoid any fluvial flood risk issues. Any undeveloped sites adjacent to the River Barrow have been zoned for green space and this should be maintained to retain existing floodplain areas. Carlow town centre development will be addressed in the Southern Regional Assembly RSES.

The areas within lands zoned future residential and commercial developments identified within the predicted Flood Zone A & B require site specific flood risk assessments to ensure no adverse flood risk impacts. The Justification Test applies to applications for future residential and commercial development.

At regional scale no significant climate change impact on the fluvial extents was identified however future development plans and flood risk assessments should still consider the potential of climate change influence on flood extents in accordance with the Guidelines. Flood extents for the Mid-Range and High-End Future Climate Change scenarios show a number of additional properties likely to be impacted. Adaptation of proposed FRMP measures would require additional lengths and heights of hard defences to provide the required Standard of Protection. Whilst the proposed measure has moderate adaptability other measures including Natural Flood Risk Management Measures may be adopted to monitor and adapt the scheme.

Applications for minor development to these existing buildings in areas of flood risk such as small extensions and most changes of use must include a flood risk assessment of appropriate detail to demonstrate that they would not have adverse flood risk impacts and employ flood resilient construction FRAs should address the site layout with respect to vulnerability of the proposed development type, finished floor levels should be above the 1% AEP level, flood resilient construction materials and fittings should be considered and the site should not impede existing flow paths or cause flood risk impacts to the surrounding areas.

#### **Assessment:**

In consideration of the above, the development of Carlow (Graiguecullen) as a regional growth centre has potential for adverse effects on European Sites along a number of pathways. These pathways include:

- Habitat loss, destruction and/or disturbance as a result of the growth ambition;
- Species disturbance;
- Habitat fragmentation;
- Deterioration in water quality as a result of the growth ambition;
- Increased demand on water supply; and
- In-combination impacts with other key growth settlements.

The RPO is the preparation of a cross-boundary Joint Urban Area Plan (UAP) for Carlow town by Carlow County Council and Laois County Council having regard to its location within the combined functional area of both local authorities. The purpose of the UAP is to provide a coordinated planning framework to identify and deliver strategic sites and regeneration areas for future physical, economic and social development of Carlow. The target is to achieve compact growth of a minimum of 30% and ensure a co-ordinated approach for future growth and development. The UAP will

identify a boundary for the plan area and strategic housing and employment development areas and infrastructure investment requirements.

The delivery of the above development and investment gives rise to the potential for increased diffuse urban pressure on the rivers that run through each of the towns (e.g. misconnections, surface run-off etc.). The River Barrow bisects the towns of Carlow and Graiguecullen and is at Moderate WFD status and considered to be at risk of failing to achieve WFD objectives. At the southern end of Carlow town, the Burren River flows east to west to join the River Barrow. The River Barrow is itself part of the River Barrow and River Nore SAC, while the Burren River discharges directly to the SAC. It is at Poor WFD status and is also considered to be at risk of failing to achieve WFD objectives. Any deterioration in water quality as a result of the expansion has the potential to impact the River Barrow and River Nore SAC.

The River Barrow and River Nore SAC passes through eight counties and many major towns along its length. It is of considerable conservation significance due to the habitats and populations of plant and animal species that are listed on Annexes I and II of the E.U. Habitats Directive. It is also of high conservation value for the populations of bird species that use it. The site also encompasses several Red Data Book plant species and the Nore Freshwater pearl mussel; however the latter is limited to a 10 km stretch of the River Nore. The main threats to the site include high inputs of nutrients to the river system including from, *inter alia*, WWTPs. As the water quality of the site remains vulnerable, it is essential that sewage be adequately treated prior to discharge. Drainage activities in the catchment can also lead to flash flood events, whilst dredging of the system poses additional threats.

The primary emission point for the Carlow wastewater treatment plant is noted to discharge to a section of the River Barrow which is at Moderate WFD status and at risk of failing to achieve WFD objectives; the River Barrow to the north and south of the town is also a designated Nutrient Sensitive River between the Portarlinton wastewater outfall to the north as far as Graiguenamanagh to the south. Carlow WWTP has a design capacity of 36,000 PE, with the load as of 2017 at 34,000 PE. Irish Water has indicated that the headroom stands at just 727 PE and that there is a project underway to cater for future growth. Carlow WWTP is not listed as a Priority Urban Area, however there is potential for increased pressure on the receiving water environment due to future growth potential.

Terrestrial biodiversity is considered to be of medium to high value for Carlow (Graiguecullen). Additional areas of natural value include Oakpark pNHA located about 1.5 km to the north-east, and Cloghrick Wood located around 3 km to the south. Scattered woodland is present around the settlement, mostly consisting small areas of broadleaved areas, larger regions of coniferous forests are located further west. Contribution to ecological networks has been identified as a key constraint for Carlow (Graiguecullen).

Population growth within Carlow (Graiguecullen) will result in increased demand on water supply and therefore there is potential for increased abstractions leading to changes/pressures on existing hydrological/hydrogeological regimes.

Due to the location of Carlow (Graiguecullen) along the main channel of the River Barrow, there is potential for in-combination impacts with other key growth settlements, in the form of multiple pressure points on interrelated European Sites.

#### **Mitigation Measures:**

With respect to the co-ordinated cross-boundary joint UAP by Carlow and Laois County Councils, regard shall be had to the respective housing, retail and other Local Authority strategies that may be in place.

Phasing of services in terms of growth and settlement is essential to avoid adverse impacts on the integrity of the Natura 2000 network.

With regard to the management of wastewater, increasing population growth should therefore be planned on a phased basis in collaboration with Irish Water and the local authorities to ensure that the assimilative capacity of the receiving environment is not exceeded and that increased

wastewater discharges from population growth does not contribute to degradation of water quality. In order meet the increased demands on the water supply and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources (e.g. hydromorphological pressures).

Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.

A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.

Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.

## 7.4 DUBLIN METROPOLITAN AREA STRATEGIC PLAN (CHAPTER 5 OF RSES)

The Dublin MASP provides a first step in outlining the vision for the Dublin Metropolitan Area. The MASP includes a high level vision to: *build on our strengths to become a smart, climate resilient and global city region, expanding access to social and economic opportunities and improved housing choice, travel options and quality of life for people who live, work, study in or visit the metropolitan area. The regional policy objectives are outlined below.*

### 7.4.1 Assessment of RPO for the Dublin MASP

Enabling Infrastructure	
<p><b>Regional Policy Objective</b></p> <p><b>5.1</b></p>	<p>Support continued collaboration between infrastructure providers, state agencies and local authorities in the metropolitan area to inform cross sectoral investment plans and capital spending plans to accelerate the development of strategic development areas and secure the best use of public lands in the Dublin metropolitan area.</p>
<b>Potential Impact on the Integrity of a European Site?</b>	
<i>Water Supply</i>	<p>Both the Water supply project for the Eastern and Midlands Region and the Varty Water Supply Scheme have direct pathways for impact on European sites including potential negative changes in key indicators of conservation value (water quality etc); and potential disturbance to key habitats and species. The water supply project for the Eastern and Midlands Region includes a proposal to transfer water from one catchment to another. The suitability of this solution will be dependent on the project being able to demonstrate no adverse effects on the integrity of any European site. Indirect pathways are also noted as improvements to water availability will encourage population growth with potential to result in habitat or species fragmentation, reduction in habitat area, disturbance to key species.</p> <p>These projects are in planning and will be subject to project level AA as design detail emerges. An AA determination will be made by the planning authority in due course. It is noted that Chapter 10 of the RSES states support for delivery of these services <i>subject to appropriate environmental assessment and the planning process.</i></p>
<i>Waste Water Treatment</i>	<p>Both the Greater Dublin Drainage and Ringsend WWTP project have direct pathways for impact on European sites including potential negative changes in key</p>

	indicators of conservation value (water quality etc); potential disturbance to key terrestrial and marine habitats and species; and potential for reduction in habitat area. Both projects have been lodged for planning and are accompanied by project level NIS. An AA determination will be made by the planning authority in due course. It is noted that Chapter 10 of the RSES states support for delivery of these services <i>subject to appropriate environmental assessment and the planning process</i> .
<i>Energy</i>	<b>No.</b> No specific projects noted. See analysis for infrastructure chapter of RSES
<i>Social Infrastructure</i>	<b>No.</b> No specific projects noted. See analysis for quality of life chapter of RSES

<b>Integrated Landuse and Transport</b>	
<b>Regional Policy Objective</b> 5.2	Support the delivery of key sustainable transport projects including Metrolink, DART and LUAS expansion programmes, Bus Connects and the Greater Dublin Metropolitan cycle Network and ensure that future development maximises the efficiency and protects the strategic capacity of the metropolitan area transport network, existing and planned.
<b>Regional Policy Objective</b> 5.3	Future development in the Dublin Metropolitan area shall be planned and designed in a manner that facilitates sustainable travel patterns, with a particular focus on increasing the share of active modes (walking and cycling) and public transport use and creating a safe attractive street environment for pedestrians and cyclists.
<b>Potential Impact on the Integrity of a European Site?</b>	
<i>Dublin-Belfast Corridor</i> Targeted investment in transport infrastructure and services complementing and maintaining its function as part of the EU TEN-T core network.	<p>The corridor in question includes the Dublin Belfast rail line and M1/A1 Motorway as regionally significant transport infrastructure. Links to Dublin Airport and Belfast Port are also part of the EU TEN-T core network. This infrastructure intersects or is in proximity to the following sites:</p> <ul style="list-style-type: none"> <li>▪ Rogerstown Estuary SPA and SAC</li> <li>▪ Broadmeadow / Swords Estuary SPA</li> <li>▪ Malahide Estuary SAC</li> <li>▪ River Nanny Estuary and Shore SPA</li> <li>▪ Boyne Coast and Estuary SAC</li> <li>▪ Dundalk Bay SPA</li> </ul> <p>In addition the corridor transport links passes close to the Boyne Estuary SPA and runs between the Stabannan-Braganstown SPA and Dundalk Bay SPA. Within NI jurisdiction the corridor is in proximity to Slieve Gullion SAC; Derryleckagh SAC; Mountlachs Moss SAC; Lough Neagh and Lough Beg SPA and Belfast Lough Open Water SPA.</p> <p>No information is presented in relation to the nature of investment in transport infrastructure and services. Potential negative changes however could be anticipated in key indicators of conservation value including water and air quality; potential disturbance to key species; potential reduction of habitat area; and potential habitat or species fragmentation.</p> <p>See further analysis relating to RSES Connectivity Chapter.</p>
<i>Rail</i>	<p>Potential negative changes in key indicators of conservation value including water and air quality; potential disturbance to key species; potential reduction of habitat area; and potential habitat or species fragmentation.</p> <p>It is noted that Chapter 8 of the RSES states support for delivery of these services <i>subject to appropriate environmental assessment and the planning process</i>. See further analysis relating to RSES Connectivity Chapter.</p>
<ul style="list-style-type: none"> <li>▪ DART Expansion Programme</li> <li>▪ New stations to provide modal interchanges</li> <li>▪ Dunboyne/M3 Parkway line to</li> </ul>	



Integrated Landuse and Transport	
<p>Navan</p> <ul style="list-style-type: none"> <li>▪ MetroLink from Swords to Sandyford;</li> <li>▪ LUAS Green Line Capacity Enhancement</li> <li>▪ LUAS network expansion</li> </ul>	
<p><i>Park and ride</i></p> <ul style="list-style-type: none"> <li>▪ <i>New facilities at Finglas, Dunboyne, Liffey Valley, Naas Road, Carrickmines, Woodbrook, Greystones</i></li> </ul>	<p>Potential negative changes in key indicators of conservation value including water and air quality; potential disturbance to key species. Criteria for identification of service corridors will include criteria for protection of the integrity of Natura 2000 network.</p> <p>It is noted that Chapter 8 of the RSES states support for delivery of these services <i>subject to appropriate environmental assessment and the planning process</i>. See further analysis relating to RSES Connectivity Chapter.</p>
<p><i>Bus</i></p> <ul style="list-style-type: none"> <li>▪ <i>Bus Connects</i></li> </ul>	<p>Potential negative changes in key indicators of conservation value including water quality.</p> <p>It is noted that Chapter 8 of the RSES states support for delivery of these services <i>subject to appropriate environmental assessment and the planning process</i>. See further analysis relating to RSES Connectivity Chapter.</p>
<p><i>Metropolitan Cycle Network</i></p> <ul style="list-style-type: none"> <li>▪ <i>NTA Greater Dublin Area Cycle Network Plan</i></li> </ul>	<p>Potential positive changes in key indicators of conservation value including air quality as a result of a modal shift from private car and bus to cycling.</p> <p>Potential disturbance to key species with particular emphasis on disturbance of birds along coastal and river frontage from increased visitor pressure; potential reduction of habitat area along coastal and riverine areas to facilitate construction of the network; and potential habitat or species fragmentation as a result of routing.</p> <p>The NTA cycle network plan has undergone SEA and AA and appropriate mitigation has been included. The application of this mitigation will ensure no adverse effects.</p> <p>See further analysis relating to RSES Connectivity Chapter.</p>
<p><i>Roads</i></p> <ul style="list-style-type: none"> <li>▪ <i>M4 Maynooth to Leixlip</i></li> <li>▪ <i>M11 from Jn 4 M50 to Kilmacanogue</i></li> <li>▪ <i>N3 Clonee to M50</i></li> <li>▪ <i>M50 Dublin Port South Access</i></li> <li>▪ <i>Adamstown and Nangor Road Improvements</i></li> </ul>	<p>Potential negative changes in key indicators of conservation value including air and water quality; potential disturbance to key species; potential reduction of habitat area; and potential habitat or species fragmentation as a result of routing. Continued promotion of car based modes of transport will also negatively influence climate change with potential indirect effects for European sites at a national and regional scale.</p> <p>It is noted that Chapter 8 of the RSES states support for delivery of these services <i>subject to appropriate environmental assessment and the planning process</i>. See further analysis relating to RSES Connectivity Chapter.</p>

MASP Housing and Regeneration	
<p><b>Regional Policy Objective</b></p> <p><b>5.4</b></p>	<p>Future development of strategic residential development areas within the Dublin Metropolitan area shall provide for higher densities and qualitative standards as set out in the 'Sustainable Residential Development in Urban Areas'5, 'Sustainable Urban Housing; Design Standards for New Apartments' Guidelines6, and Draft 'Urban Development and Building Heights Guidelines for Planning Authorities'</p>

<p><b>Regional Policy Objective</b> <b>5.5</b></p>	<p>Future residential development in the Dublin Metropolitan Area shall follow a clear sequential approach, with a primary focus on the consolidation of Dublin and suburbs, supported by the development of Key Metropolitan Towns in a sequential manner as set out in the Metropolitan Area Strategic Plan (MASP) and in line with the overall Settlement Strategy for the RSES. Identification of suitable residential development sites shall be supported by a quality site selection process that addresses environmental concerns.</p>
<p><b>Potential Impact on the Integrity of a European Site?</b></p>	
<p>No. It is stated that identification of suitable residential development sites shall be supported by a quality site selection process that addresses environmental concerns. For clarity it should be explicitly stated that environmental concerns shall include the potential for likely significant effects on European sites. Furthermore, the RSES recognises elsewhere in the strategy that at the project consent stage if it appears that any element of the MASP cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect on the Natura 2000 network. See further analysis relating to RSES Growth and Settlement Chapters.</p>	

<p><b>Employment Generation</b></p>	
<p><b>Regional Policy Objective</b> <b>5.6</b></p>	<p>The development of future employment lands in the Dublin metropolitan area shall follow a sequential approach, with a focus on the re-intensification of employment lands within the M50 and at selected strategic development areas and provision of appropriate employment densities in tandem with the provision of high quality public transport corridors.</p>
<p><b>Potential Impact on the Integrity of a European Site?</b></p>	
<p>Yes. It is recognised elsewhere in the strategy that at the project consent stage if it appears that any element of the MASP cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect on the Natura 2000 network. However, this RPO does not acknowledge the need for quality site selection process that addresses environmental concerns as is clear in the housing and regeneration element. Without a stipulation that site selection is required for inform these future employment lands there is potential for direct effects as a result of negative changes in key indicators of conservation value (water quality etc); potential disturbance to key species and habitats and fragmentation to habitat or species. See further analysis relating to RSES Growth and Settlement Chapters.</p>	
<p><b>Mitigation:</b> The RPO should stipulate that the identification of suitable employment sites shall be supported by a quality site selection process that addresses environmental concerns which shall include the potential for likely significant effects on European sites.</p>	

<p><b>GI and Amenities</b></p>	
<p><b>Regional Policy Objective</b> <b>5.7</b></p>	<p>Coordinate across Local Authority boundaries to identify manage and develop regional green infrastructure to enhance strategic connections and develop a regional greenbelt policy in the Dublin metropolitan area.</p>
<p><b>Regional Policy Objective</b> <b>5.8</b></p>	<p>Support the promotion and development of greenway infrastructure and facilities in the Dublin metropolitan area and to support the expansion and connections between key strategic cycle routes and greenways as set out in the NTA Greater Dublin Area Cycle Network Plan</p>
<p><b>Potential Impact on the Integrity of a European Site?</b></p>	
<p>No potential for impact as a result of coordination across Local Authority boundaries. However there is potential for direct effects from the development of greenway infrastructure and facilities as a result of reduction of habitat area and fragmentation to habitat or species. Also potential for indirect effects as a result</p>	

of negative changes in key indicators of conservation value (water quality etc) and from disturbance to key species and habitats as a result of increased visitor pressure. The following strategic metropolitan greenway network routes are noted in the RSES:

- East Coast Route
- Royal Canal Greenway
- Grand Canal Greenway
- River Liffey Greenway
- Dodder Valley Greenway
- Western Canals Loop.

Other potential strategic radial routes to link into other greenways such as the Tolka, Santry, Poddle and Camac greenways are also mentioned.

It is noted that Chapter 7 of the RSES states that *Local authority Development Plan and Local Area Plans, shall identify, protect, enhance, provide and manage Green Infrastructure in an integrated and coherent manner and should also have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species. Furthermore it is an objective of the RA to Support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the Region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and Local Authority Development Plans.*

**Mitigation:** The NTA Cycle Network Plan has assessed the potential adverse effect of the routes identified and mitigation measures have been developed to address negative effects. The RSES should stipulate that support for these routes is subject to compliance with the mitigation measures as outlined in the NIS for the NTA strategy.

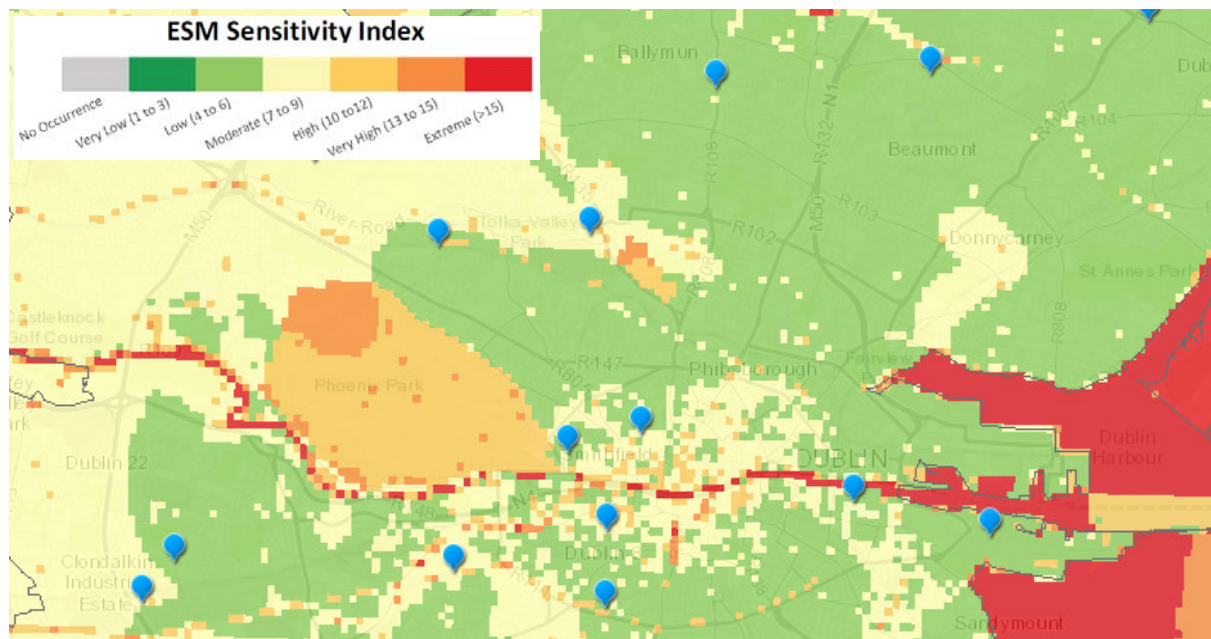
## 7.4.2 Strategic Corridors and Infrastructure Priorities

Strategic residential and employment development corridors are identified in the MASP, based on their capacity to achieve compact sustainable and sequential growth along key public transport corridors, existing and planned;

- 1. Within the M50 ring (multi-modal)
- 2. North-South Corridor (DART expansion scheme)
- 3. Maynooth/Dunboyne line (DART expansion scheme)
- 4. South-West Corridor (Kildare line-Luas red line)
- 5. Metrolink Corridor (Metrolink - Luas Green Line extension)

### Within M50 Ring (Multi modal)

The consolidation of sites within or contiguous to the existing built up and zoned area of Dublin City and suburbs is a key strategic outcome of the draft RSES. There are a number of strategic development areas which have been identified as having the capacity to deliver significant residential development and support the continued growth of Dublin including Dublin Docklands, Cherrywood and Clonburris S DZs. Lands at Dunsink are also recognised as a long term strategic landbank, subject to planning. In the medium term, the proposed LUAS extensions to Finglas and Lucan are also intended to support increased capacity and densification of sites subject to appraisal.



### Environmental Sensitivities<sup>11</sup> within M50 Ring

The corridor is upstream of important water dependant European sites. These include North Dublin Bay SAC; South Dublin Bay SAC; South Dublin Bay and River Tolka SPA; and North Bull Island SPA. There are direct pathways within this corridor along the main rivers in the area. There are also indirect pathways as a consequence of the strategy including increased visitor pressure leading to disturbance of key habitats and species and changes to environmental quality as a result of deterioration of air and water quality and introduction of noise disturbance. [There is also potential for ex-situ impacts where supporting features outside European sites are impacted e.g. loss of feeding or resting area for birds, reduction in availability of food for a protected species as a result of deterioration of water quality etc.](#)

Development of Dublin Port and the Poolbeg area will bring particular challenges given the pathways to the European sites adjacent and the nature of the QI and SCIs. The cumulative impact of port related pressures along with proposed transport, residential and commercial pressures noted in the MASP have potential for adverse effects on the QI and SCI of these European sites. Key potential impacts include:

- Discharge from developments in the area if there is not sufficient capacity in Ringsend WwTP or elsewhere. Excess outflows have historically been discharged to Dublin Bay with a direct connectivity to the adjacent European sites;
- Recreational pressures from increased residential populations and as a result of improved transport links to the area, encouraging additional visitors with increased noise and also cycling, walking, dogs etc. which may impact on birds in particular;
- Disturbance from construction works and changes in water quality as a result of construction works.

<sup>11</sup> The ESM tool has been run using the following layers, with a weighting of 2 applied to Biodiversity, Flora & Fauna and a normal weighting of 1 applied to the other groups: Air & Climatic Factors: Flood extents current scenarios (coastal & fluvial); Biodiversity, Flora & Fauna (weighting of 2): SACs, SPAs, Annex I habitats, Margaritifera sensitive areas, NHAs, pNHAs, salmonid rivers; Cultural Heritage: RMPs/SMR, NIAH; Population & Human health: Drinking waters (river, lake, ground); Soils & Geology: CGSs, GeoParks, peat bogs; Water: aquifer vulnerability, WFD status (river, lake, transitional and coastal), nutrient sensitive areas, recreational waters, shellfish areas.

EMRA is committed to the phasing of services with development and this is stated in Chapter 5 of the RSES. Furthermore Chapter 8 of the RSES states EMRAs support for the undertaking of feasibility studies to determine the carrying capacity of ports in relation to potential for likely significant effects on associated European sites including SPAs and SACs. Furthermore it is acknowledged in Chapter 3 that the RSES recognises that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.

The results of the environmental sensitivity mapping undertaken for the corridor illustrate that the area has some areas of moderate to high sensitivity associated with the Phoenix Park and the River Liffey in particular. The park is a key amenity for the city as well as an important biodiversity feature to support urban fauna. Its importance is elevated by the proximity to the river as together they offer good opportunities for ecological networking and this should be recognised and valued within EMR. There is also opportunity in relation to ecosystem services associated with flooding, maintaining open space and enhancing opportunities for natural flood alleviation could bring positive for properties along the corridor. It is noted that the majority of the rivers in the corridor are at bad, poor or moderate status and as such additional development and consolidation of activity in the corridor will be challenging in terms of the WFD objectives to maintain or improve to at least good status. This should be a clear focus in terms of mitigation for any planning going forward.

Aquifer vulnerability also features as a sensitivity in the area with high to extreme occurring over much of the area. Greenfield areas to the North of the current urban area contain pockets of higher sensitivity associated with cultural heritage, and to the South of the railway line, the potential for cumulative effects increases along the Grand Canal as a result of its ecological significance.

There are water/ wastewater limitations within the corridor e.g. Clonburris which would give rise to heightened sensitivity for BFF and W in particular if development is not phased inline with available capacity. Continued liaison with Irish Water will be essential to ensure that this occurs. Planning permissions should be conditional on available capacity to ensure the two issues are linked.

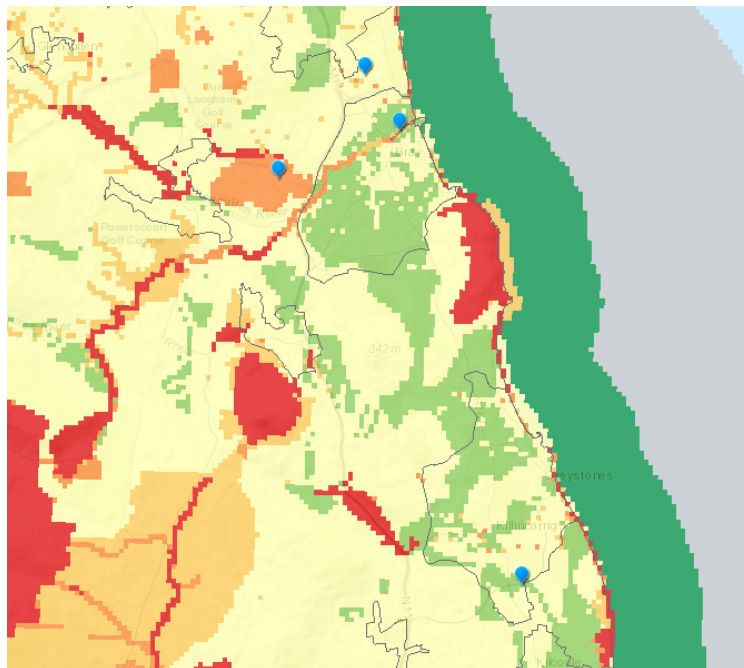
### **DART North – South Eastern Commuter Lines (DART Expansion Scheme)**

The DART Expansion Programme proposes improvements of existing infrastructure and electrification of the Northern line, opening up development opportunities at key nodes. The consolidation of Dublin city and suburbs is supported by the continued development of the North Fringe lands served by Stapolin Station and the development of Woodbrook Shanganagh in conjunction with the provision of a new railway station. The city is further supported by the development of strategic lands in the Key Metropolitan Growth Settlement of Bray with future public transport links to lands at Fassaroe and Old Conna, and the Moderate Growth Settlement of Donabate, which are served by the DART and the Northern Commuter rail lines, respectively. The development of the IDA Strategic Site in Greystones will support a more sustainable economic base in this commuter town.



Key potential impacts include:

- Discharge from developments in the area if there is not sufficient capacity in WWTP servicing the northern corridor. It is noted that there are proposals for a new WWTP in fingal however the timeline for delivery is not certain.
- Recreational pressures from increased residential populations and as a result of improved transport links to the area, encouraging additional visitors with increased noise and also cycling, walking, dogs etc. which may impact on birds in particular;
- Disturbance from construction works and changes in water quality as a result of construction works.



**Environmental Sensitivities Along the North- South Eastern corridor - South [Bray-Woodbrook-Fassaroe-Charlesland]**

Further south along this corridor key sensitivities include Bray Head SAC and the Murrows wetland SAC and SPA. These areas will be sensitive to increased recreational pressure therefore consideration of how to manage these pressures will be needed at the CDP level to avoid adverse effects. Surface and groundwater are also an important consideration for future development within the corridor. Areas such as Fassaroe and Ballyman have constraints in relation to groundwater dependent ecosystems including Tuffa Springs. Developments which lead to interaction with groundwater quantity and quality may be limited in extent by the presence of these sensitive sites. The corridor is also in proximity to Vartry Reservoir which provides a significant amount of Dublin's water supply. A scheme to upgrade the reservoir was granted permission in 2018. During the planning process the importance of the river as a salmon, sea trout and trout river were highlighted.

Key potential impacts include:

- Changes to groundwater quantity or quality affecting groundwater dependent European sites;

- Discharge from developments in the area if there is not sufficient capacity in WwTP servicing the corridor. It is noted that there are proposals for a new WwTP in Fingal and upgrades to Ringsend however the timeline for delivery is not certain. .
- Recreational pressures from increased residential populations and as a result of improved transport links to the area, encouraging additional visitors with increased noise and also cycling, walking, dogs etc.;
- Disturbance from construction works and changes in water quality as a result of construction works.

As noted above, EMRA is committed to the phasing of services with development and this is stated in Chapter 5 of the RSES. Furthermore it is acknowledged in Chapter 3 that the RSES recognises that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.

### Maynooth / Dunboyne Commuter Line

Strategic development opportunities have been identified along the Dunboyne/M3 parkway commuter line to drive economic growth at the Dublin Enterprise Zone in Blanchardstown and for significant residential growth at Hansfield SDZ lands along with the sequential development of lands in Dunboyne and Dunboyne north, which is served by the M3 Parkway station. Along the main line, the electrification of the DART opens up opportunities for sequential growth in Leixlip and Maynooth.



### Environmental Sensitivities Along the Maynooth / Dunboyne Corridor

The environmental sensitivity mapping for the Maynooth / Dunboyne Commuter Line show relatively low sensitivity. The main feature of high sensitivity is along the Rye River which is a European site designated for petrifying springs and the Whorl snail. Both are highly sensitive to water/groundwater quality and quantity. Detailed consideration of these habitats and species will be required for all residential and employment development in the corridor. Flooding along the river has also been identified adding to the cumulative constraint.



As with other linear ecological features, these represent important ecological network connections and must be protected from the negative effects associated with densification and consolidation.

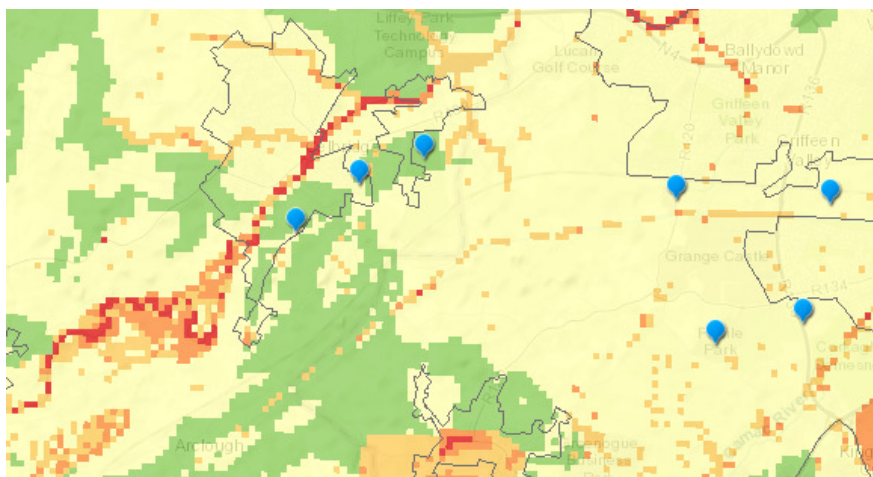
Key potential impacts include:

- Changes to groundwater quantity or quality affecting groundwater dependant European sites particularly QIs of petrifying springs and the Whorl snail;
- Discharge from developments in the area if there is not sufficient capacity in WwTP servicing the corridor.
- Disturbance from construction works and changes in water quality as a result of construction works.

As noted above, EMRA is committed to the phasing of services with development and this is stated in Chapter 5 of the RSES. Furthermore it is acknowledged in Chapter 3 that the RSES recognises that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.

### South Western Corridor (Kildare line-Luas red line)

The corridor serves a number of strategically located sites in South Dublin, including the major residential lands of Clonburris, Kilcarbery and Adamstown SDZ and are in proximity to the key emerging employment zones of Grangecastle, which may be supported by additional bus connections. These lands support the consolidation and western expansion of Dublin city and suburbs, supported by the development in a sequential manner of strategic lands in Cellbridge along with the provision of links to Cellbridge-Hazelhatch station.

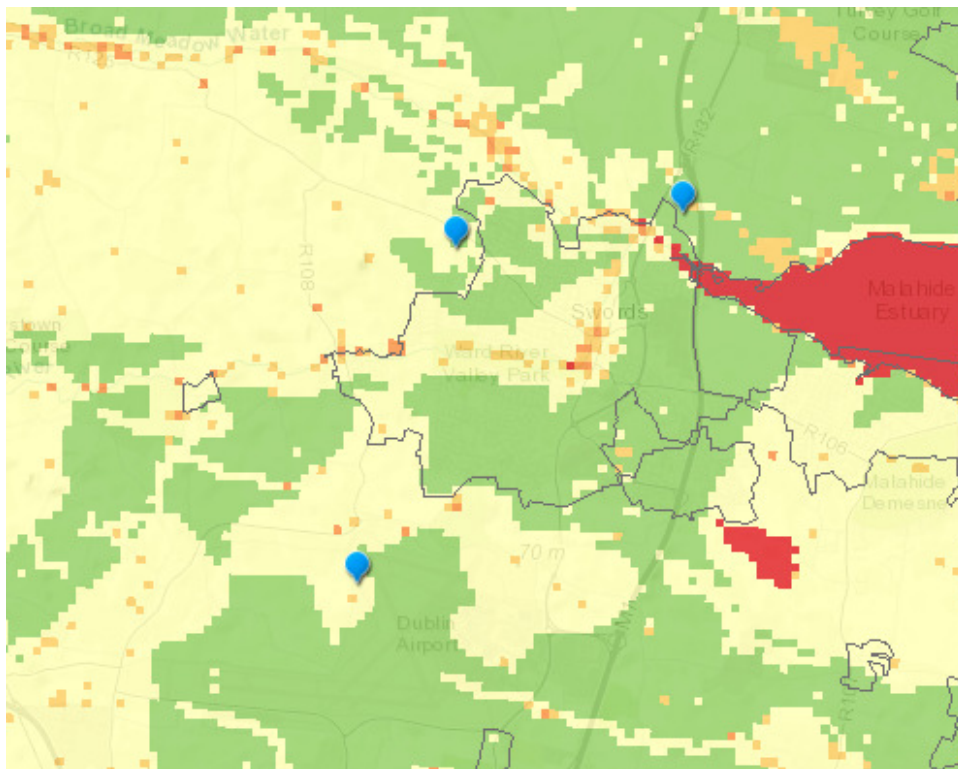


### Environmental Sensitivities Along the South Western Corridor

The lands are generally environmentally robust, with some areas having moderate sensitivity as a result of groundwater protection considerations. Changes to the quality of water resources as a result of development in this area have the potential to result in indirect cumulative effects on the downstream European sites. The River Mayne (Poor ecological status) passes through this area representing a sensitivity due to its degraded status. From this there is hydrological connectivity to the coast and the sensitivities there in the form of the Baldoyle Bay SPA and SAC.

### MetroLink Corridor (MetroLink - Luas Green Line extension)

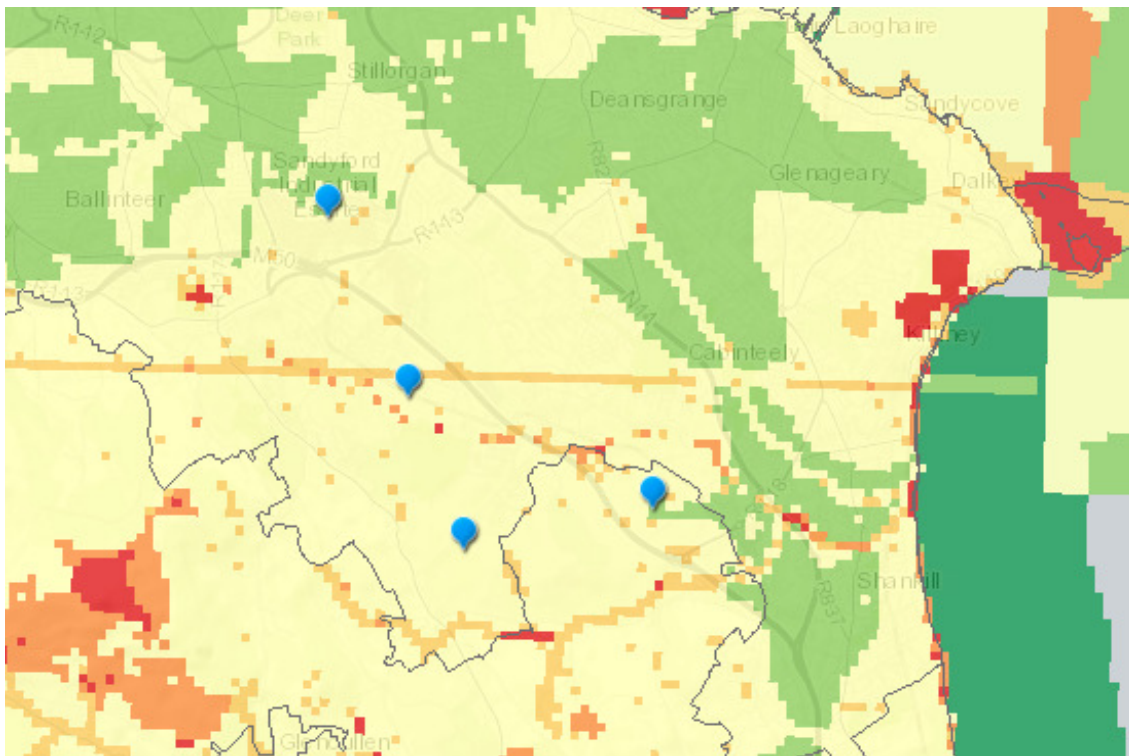
The development of the proposed MetroLink project has the potential to open a number of significant development opportunities post 2027. Swords is identified as a Key Metropolitan Growth Settlement and the indicative route for the new Metro will facilitate its continued development and expansion into Swords-Lissenhall. Swords is located adjacent to the key national gateway of Dublin Airport, which along with MetroLink can support continued economic growth subject to the protection of airport capacity and accessibility. The proposed MetroLink route is proposed to continue via the city centre and onwards to Sandyford using the existing LUAS Green Line and the proposed upgrading of this line would support further growth along this corridor to Cherrywood.



#### Environmental Sensitivities Along the Metro Link Corridor

The most significant sensitivity is related to the European site located at the Malahide Estuary SAC and Broadmeadow/ Swords SPA. A key issue for the future development of this area is the potential for ex-situ impacts where birds from the SPA use locations outside the SPA boundary for resting and feeding. This supporting habitat is important to the overall wellbeing of the bird populations and loss of these areas may result in adverse effects on the integrity of the European site. A clear understanding of how these populations interact with their surrounding areas will be needed at CDP level to properly inform decisions at CDP, LAP and SDZ level as well as project planning.

Isolated pockets of moderate sensitivity are related to both the Broad Meadow River and the Ward River. Both of these linear features are important ecological networks linking through to the coastal area and are direct pathways for impact to the European sites downstream. The Broadmeadow is at poor status for much of its length and parts of the Ward River are also under pressure although it has stretches of good status also. Protection of these rivers and associated riverine habitat in terms of their values to downstream protection of the receiving European sites and the benefits of maintaining flood plains in terms of flood elevation should be considered in development within this corridor.



### Environmental Sensitivities Along the Metro Link Corridor

Further south along the MetroLink corridor it is proposed to upgrade the Luas Green Line to Metro. Already there is significant development along the Luas Line extending out to Cherrywood, which is also serviced by the M50. The general area has moderate sensitivity associated with the aquifer vulnerability and also the presence of a number of rivers in the area. The Wicklow Mountains National Park is located to the south west and this is also an SAC and SPA. Increasing population along the Metro corridor may increase visitor pressure to this area and ongoing liaison with NPWS would necessary to manage sustainable access to this resource.

The Carrickmines Stream (Moderate ecological status) runs through the northern part of the SDZ and joins the Shanganagh River (Good status and a designated river for drinking water abstraction) which flows to the south of the Cherrywood lands. The river passes next to the Loughlinstown Woods pNHA before discharging to the Dalkey Coastal Zone and Killiney Hill pNHA and a number of Annex I habitats at the coastline: perennial vegetation of stony banks and tidal mudflats

Key potential impacts include:

- Changes to groundwater quantity or quality affecting groundwater dependant European sites;
- Discharge from developments in the area if there is not sufficient capacity in WwTP servicing the corridor. It is noted that there are proposals for a new WwTP in Fingal and upgrades to Ringsend however the timeline for delivery is not certain. .
- Recreational pressures from increased residential populations and as a result of improved transport links to the area, encouraging additional visitors with increased noise and also cycling, walking, dogs etc.;
- Disturbance from construction works and changes in water quality as a result of construction works.

## 7.5 ECONOMY AND EMPLOYMENT (CHAPTER 6 OF RSES)

Chapter 6 of the draft RSES identifies the Eastern and Midlands Region (EMR) as the epicentre of the country's economic progress, which drives national progress. The chapter is driven by the key principle of economic opportunity, whilst the draft RSES identifies a number of Regional Strategic Outcomes.

Key Policy Area	Assessment	Mitigation
Competitive and Resilient Economic Base	No potential for adverse effects from RPO 6.1 which is a supporting function for the region. It is noted however that the policy includes <i>guiding principles for strategic employment and investment prioritisation in placemaking for enterprise development</i> . These principles do not address protection of the environment or avoiding adverse effects on the integrity of the European sites within the region or those with connectivity to the region.	The region will develop and apply guiding principles for the protection of the Natura 2000 network and the avoidance of adverse effect on integrity of European sites.
Sustainable Development	No potential for adverse effects from RPO 6.2 which acknowledges the need to have regard to environmental and sustainability considerations and proper site/route selection of any new development. The RPO requires that LA examine environmental constraints including but not limited to biodiversity, flooding, landscape, cultural heritage, material assets, including the capacity of services to serve any new development.	Specific reference should be made to potential for adverse effects on European sites as one of the issues to examine in RPO 6.2
Unexpected Opportunities for Enterprise Development	No potential for adverse effects from RPO 6.3. All city and county development plans are subject to AA in their own right and the agility and flexibility called for will be in the context of the wider policy base which must meet the tests prescribed by AA at the CPD level.	None
Dublin-Belfast Corridor	Potential for adverse effects from RPO 6.4. As noted in Section 7.4 and 7.7 of this NIR, there are a number of European Sites along the Dublin Belfast Corridor. Proposals for growth centres at Dundalk and Drogheda have potential to adversely affected those European sites which are intersected or adjoin the conceptual corridor. See Section xx for further consideration.	See section 7.4. and 7.7
Rural Economy	No adverse effects on site integrity from RPO 6.5 to 6.7 which support the role for LECP in rural areas. RPO6.8 supports initiatives to enhance sectors such as agricultural and food, forestry, fishing and aquaculture, energy and extractive industries, the bio-economy and diversification into alternative on-farm and off-farm activities. Where such activities occur there can be significant potential for adverse impacts on site integrity across a range of protected habitats and species depending on location. The policy	Local economy and community plans are subject to AA when prepared. This will ensure avoidance of adverse effects in the first instance and mitigation measures if required.

Key Policy Area	Assessment	Mitigation
	<p>does reference sustainable economies and also notes the importance of maintaining and protecting the natural landscape and built heritage but is not explicit in acknowledging the potential negative effects of these activities or the need to protect European sites and avoid adverse effects.</p> <p>In developing such initiatives, each LA must consider the potential for the initiative to lead to likely significant effects and where necessary adverse effects on site integrity.</p>	
Retail Strategies and Retail Planning Guidelines	The preparation of retail strategies as identified in RPO6.9 and the application of the existing retail hierarchy in the region will not give rise to adverse effects on integrity of any European sites.	None
Town Centre Renewal	No adverse effects on European sites as a result of RPO11-RPO13	None
Natural and Cultural Tourism Assets	<p>Potential for adverse effects on site integrity as a result of this policy base if unmitigated as it seeks to encourage visitors to cultural and natural heritage assets in the region. These may include cultural and natural assets adjacent to or within European sites.</p> <p>Key impacts include:</p> <p>New or more intense disturbance to key species or habitats which are QIs or SCIs for the site or which support the QIs and SCIs of the site. Harnessing of tourism assets may also potentially lead to increased visitor numbers, along with associated recreational activities, within or adjacent to sensitive areas especially along coastal areas and rivers and lake which could lead to adverse impacts on the Natura 2000 network, if unmitigated. Disturbance of species supported by a European site is likely to increase where there is an increase in activity levels from recreation and amenity or from developments within or adjacent to designated areas. Sources of disturbance include noise, vibration, light, associated with construction and operation phases.</p> <p>Direct and indirect habitat loss and deterioration. Construction of supporting infrastructure may result in encroachment into designated sites and may include the removal of habitats or supporting features. This is particularly relevant to coastal or riverine cycle or walkways which may consider construction of linear infrastructure which leads to shading and or loss of habitat.</p>	<p>Visitor Experience Development Plans will specifically include a clear plan to avoid adverse effects on the integrity of European sites within the zone of influence of the plan including specific consideration of how supporting infrastructure like car parks and shops can influence the level of pressure on habitats and species the immediate vicinity.</p> <p>EMRA will support Local Authorities in the developing specific monitoring protocols for visitor pressure to ensure that tourism activities are maintained within sustainable limits for the European sites in the region.</p>

Key Policy Area	Assessment	Mitigation
	<p>Changes in key indicators of conservation concern. This may occur as a result alteration to the drainage regime in sensitive wetland areas; run-off of pollutants during construction, alterations to water quality and quantity for sites which are dependent on water quality and quantity (habitats and species), pollution events where temporary populations during “high” season may put unsustainable pressure on services.</p> <p>Spread of invasive species. This is a significant threat to European sites. It may occur particularly in relation to navigation and fishing activities within the region as visitors move boats and equipment from one navigation channel to another. In addition to spread of invasive species this can also increase the risk of spread of disease such as the Crayfish Plague which was evident in the Barrow river during the summer of 2018. This could lead to direct species mortality or changes in species assemblages which would impact on the conservation objectives of sites within the region. Linear infrastructure such as greenways and blueways may also act as conduits for the transfer of invasive species.</p>	
Identification of Destination Towns.	The identification of destination towns outlined in RPO 6.18 will not give rise to adverse effects on integrity of any European sites.	None
Marine Economy	<p>RPO 6.19 supports the preparation of the upcoming Maritime Spatial Plan. This will not give rise to adverse effects on integrity of any European sites.</p> <p>It is noted this plan will be subject to SEA and AA when prepared and will need to address the coastal and marine European sites in particular in developing a sustainable marine economy.</p>	None
Low Carbon and Circular Economy	RPO 6.20 will not give rise to adverse effects on the integrity of any European sites.	None
Skills and Talent	RPO 6.21 will not give rise to adverse effects on the integrity of any European sites.	It is recommended that RAPJs, LEOs and Local Authorities are supported by the Regional Assemblies in upskilling on compliance with AA obligations through the planning hierarchy.
Innovation	RPO 6.22 will not give rise to adverse effects on the integrity of any European sites.	None
ITechnology and innovation Poles	RPO 6.23 supports the development of sites where high-tech and high potential start-up can establish in conjunction with IoTs and	Robust feasibility and site selection, which includes explicit consideration of likely significant effects on

Key Policy Area	Assessment	Mitigation
	Universities. No specific sites are identified at this stage. RPO 6.23 will not give rise to adverse effects on the integrity of any European sites.	European sites and where relevant potential for adverse effects on the integrity of a European site will be carried out in advance of any site development.
Smart cities	RPO 6.24 supports the development of smart city initiatives and development of smart city programmes. RPO 6.24 will not give rise to adverse effects on the integrity of any European sites.	None
Innovation Capacity	RPO 6.25 will not give rise to adverse effects on the integrity of any European sites.	None
Ecosystem Performance	RPO 6.26 will not give rise to adverse effects on the integrity of any European sites.	None
Infrastructure Investment	RPO 6.27 will not give rise to adverse effects on the integrity of any European sites.	None
Branding	RPO 6.28 will not give rise to adverse effects on the integrity of any European sites	None
Bidding Capacity	RPO 6.29 will not give rise to adverse effects on the integrity of any European sites.	None
Shared Evidence Base	RPO 6.30 will not give rise to adverse effects on the integrity of any European sites.	None
Economic Risk Management System	RPO 6.31 will not give rise to adverse effects on the integrity of any European sites.	None
Anticipating Economic Structural Changes	RPO 6.232 will not give rise to adverse effects on the integrity of any European sites.	None

## 7.6 ENVIRONMENT (CHAPTER 7 OF RSES)

Chapter 7 of the draft RSES acknowledges that a clean, well-protected environment supports human health and wellbeing and provides a natural resource for agriculture and tourism industries. The drivers of the chapter are the key principles of healthy placemaking and climate action.

Four key Regional Strategic Outcomes have been identified as follows:

- The need to conserve and enhance the biodiversity of our protected habitats and species including landscape and heritage protection;
- To identify, protect and enhance our Green Infrastructure;
- To ensure the sustainable management of our natural resources; and
- To build climate resilience, to support the transition to a low carbon economy by 2050 and the protection of the healthy natural environment to ensure clean air and water for all.

The management of the environment is governed by various pieces of legislation at national, European and international level.

Key Policy Area	Assessment
<p align="center"><b>Integrated Land and Marine Planning</b></p>	<p>No potential for adverse effects from RPO's 7.1 to 7.6. Broadly speaking the RPOs for Integrated Land and Marine Planning relate to the growth of Ireland's marine sector, developing coastal erosion and flooding protection, develop fisheries and aquaculture and the protection of maritime heritage. Where such activities occur there can be significant potential for adverse impacts on site integrity across a range of protected habitats and species depending on location but in particular European Sites with coastal, estuarine and/or marine Conservation Objectives.</p> <p>It is noted that the RPOs aim to integrate and align with plans and directives which aim to protect marine waters in order and achieve effective integrated land and marine planning. Objectives will comply with the Marine Strategy Framework, the upcoming National Maritime Spatial Plan, Marine Spatial Planning and the Water Framework Directive. Coastal dynamics will be supported by Integrated Coastal Zone Management. RPO 7.2 aims to "achieve and maintain Good Ecological Status" for marine waters.</p>
<p><b>Mitigation:</b> Land and marine plans are subject to AA when prepared. This will ensure avoidance of adverse effects on the integrity of European Sites in the first instance and mitigation measures if required.</p>	

Key Policy Area	Assessment
<p align="center"><b>A Clean and Healthy Environment</b></p>	<p>No potential for adverse effects from RPO's 7.7 to 7.11. The RPOs for a clean and healthy environment are positive and relate to supporting improvements to air and water quality as well as reducing pollution from noise and light.</p> <p>It is noted that the RPOs will support various Environmental Directives in order to achieve a clean and healthy environment e.g. RPO 7.8 acknowledges incorporating the EU Environmental Noise Directive and RPO 7.10 supports the implementation of the Water Framework Directive.</p> <p>The RPOs 7.7-7.9 &amp; 7.11 requires the support and work of Local Authorities in order to implement improvements. In order to achieve policy objectives ongoing support for Local Authority implementation is required to ensure this positive impact is achieved.</p> <p>RPO 7.11 includes recognition of the need to deliver efficient wastewater facilities with sufficient capacity and thus contribute to improved water quality in the Region. The development of new infrastructure to support this RPO could to lead potential likely significant effects and where necessary adverse effects on site integrity which should be considered.</p>
<p><b>Mitigation:</b> Any plans relating to the development of wastewater facilities are subject to AA when prepared. This will ensure avoidance of adverse effects on the integrity of European Sites in the first instance and mitigation measures if required.</p>	



Key Policy Area	Assessment
<p><b>Flood Risk Management</b></p>	<p>No potential for adverse effects from RPO's 7.12 to 7.15. The RPOs for a flood risk management are broadly positive and relate to reducing flood risk and implementing flood risk management plans.</p> <p>Incorporating Strategic Flood Risk Assessments into future statutory landuse plans is acknowledged in order to avoid inappropriate land use zoning and development in areas at risk of flooding. Local Authorities will also take into account Flood Risk Management Plans (FRMP) during the development of local planning policies. In addition the recommendation from the Catchment Flood Risk Assessment and Management (CFRAM) programme is to be incorporated into flood risk management policies. FRMPs have been subject to Strategic Environmental Assessment (SEA), and Appropriate Assessment (AA)</p> <p>The integration of sustainable water management solutions will be directly positive to waters in relation to protection and conservation of water resources. In particular RPO 7.15 is positive which aims to enhance biodiversity and amenities and to ensure the protection of environmentally sensitive sites and habitats.</p> <p>RPO 7.13 in particular is important in the context of coastal squeeze which is unlikely to to dissipate given the requirements and potential of the coastal area in the EMR and the objectives that have been developed elsewhere in the RSES which aim to provide for the development in the coastal space.</p> <p>Any development in close proximity to coastal areas has the potential to impact upon coastal and marine European Sites in particular through habitat loss or change, fragmentation and disturbance, reduction in water quality and/or volume leading to loss of wetlands, species disturbance – in particular birds for which much of transitional and coastal territory has been designated and the introduction of alien and invasive species.</p> <p>Coastal erosion is also a significant concern with implications for Natura 2000 sites including degradation of protected habitats and species; reduction in habitat area, loss of supporting habitat function among others.</p>
<p><b>Mitigation:</b> Any plans such as those relating to local flooding solutions are subject to AA when prepared. This will ensure avoidance of adverse effects on the integrity of European Sites in the first instance and mitigation measures if required.</p>	

Key Policy Area	Assessment
<p><b>Biodiversity and Natural Heritage</b></p>	<p>No potential for adverse effects for RPO 7.16 and 7.19 which support the implementation of the Habitats Directive and designation of peatlands in the midlands as a national park.</p> <p>Potential for adverse effects from RPO's 7.18 and 7.20. These RPOs for are broadly positive however policies supporting development and facilities within European Sites have the potential for adverse effects.</p> <p>RPO 7.18 specifically relates to working with Local Authorities to</p>

	<p>promote the development of visitor experiences and facilities within Wicklow National Park which is intersected by the Wicklow Mountains SAC and SPA. RPO 7.20 specifically relates to the development of improved visitor experiences, nature conservation and sustainable development activities within the Dublin Bay Biosphere which adjoins or intersects a number of European Sites.</p>
<p><b>Mitigation:</b> Any plans for developments within European sites must be cognisant of the implications of increased visitor pressure upon QI/SCIs within the site.</p> <p>Any plans are subject to AA when prepared. This will ensure avoidance of adverse effects on the integrity of European Sites in the first instance and mitigation measures if required.</p>	

Key Policy Area	Assessment
<p><b>Green and Blue Infrastructure</b></p>	<p>No potential for adverse effects for RPO 7.21 to 7.24. The RPOs for green and blue infrastructure are broadly positive. RPO 7.21 relating to the inclusion of green infrastructure within Local Authority Development Plans and Local Area Plans and it is noted that regard should be given to the conservation of European sites.</p> <p>RPOs 7.23 and 7.24 promote and support the development of greenways, blueways and peatways as well as other cycling/walking infrastructure.</p> <p>Greenways and cycleways are generally positive from an environmental perspective acting as ecological corridors if designed appropriately. However, as with any linear infrastructure, there is potential for both direct and indirect negative impacts through habitat loss, habitat fragmentation, species disturbance from construction or visitor pressure, decrease in water quality, alteration to ecological processes and potential spread of invasive species. The sensitive siting and routing of this infrastructure is essential to ensuring there are no impacts on the integrity of the sites or on achievement of their conservation objectives.</p> <p>See RPO 4.7, 4.12, 4.32, 4.43, 4.46, 5.8 for further RPOs relating to greenways, blueways and peatways.</p>
<p><b>Mitigation:</b> Any development is supported by a quality site/route selection process that addresses environmental concerns such as landscape, cultural heritage and biodiversity as a minimum.</p> <p>Any future development of greenways, blueways, peatways, cycleways or walkways will include an assessment of any impacts that may arise from increased visitor pressures, in particular, on sensitive European sites and the design of the network will consider the provision of protective measures on sites sensitive to disturbance/visitor pressure.</p>	

Key Policy Area	Assessment
<p style="text-align: center;"><b>Landscape</b></p>	<p>No potential for adverse effect for RPO 7.25. While it is welcomed that a Regional Landscape Character Assessment will be prepared, it must be noted that a significant amount of development has occurred in the region in the absence of a National Landscape Character Assessment in the intervening years since the publication of the National Landscape Strategy. As such, greater clarity is needed on the actions needed to progress a Regional LCA and timelines established.</p> <p>Potential for adverse effects for RPO 7.26. The identification of high value agricultural land has potential for negative impacts through the further intensification of key areas located near sensitive habitats and/or species. Impacts can include further habitat loss, simplification of the landscape through monocultures, habitat fragmentation, habitat loss, species disturbance and degradation in water quality.</p> <p>It is noted this RPO promotes sustainable farming practice that maintain the quality of the natural environment, protect farm landscapes and support the achievement of climate targets.</p> <p>The RPO 7.27 for is broadly positive supporting policies and strategies such as Bord Na Mona Biodiversity Plan 2016-2021 and Climate Mitigation and Adaption Plans.</p>
<p><b>Mitigation:</b> In order implement sustainable farming practices and prevent adverse effects on European sites the RSES must align with other plans and directives such as the River Basin Management Plans, Water Framework Directive, Nitrates Directive, Nitrates Action Plan, National Biodiversity Action Plans, Climate Mitigation and Adaptation Plans, Flood Risk Management Plans and any other related plans.</p> <p>Any plans are subject to AA when prepared. This will ensure avoidance of adverse effects on the integrity of European Sites in the first instance and mitigation measures if required.</p>	

Key Policy Area	Assessment
<p style="text-align: center;"><b>Climate Change</b></p>	<p>No adverse impact for RPOs 7.28 to 7.42. The RPOs are broadly positive in supporting a transition to a low carbon, circular &amp; climate resilient region.</p> <p>A number of the RPOs place obligations on the Climate Action Regional Office and EMRA to inventory, monitor and report emissions and this monitoring and reporting function is welcomed. It is noted this has been added as a result of SEA recommendations as part of the iterative assessment process. Other objectives place obligations on the local authorities that will have positive and broader environmental impact only if successfully implemented. To this end, a set of guidelines and ongoing support for local authority implementation is required to ensure this positive impact is achieved consistently and comprehensively across the region and down through the planning hierarchy.</p>

	See Section 7.7.10 for further discussion on Climate impacts.
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<b>Mitigation:</b> Any plans are subject to AA when prepared prior to adoption. This will ensure avoidance of adverse effects on the integrity of European Sites in the first instance and mitigation measures if required.
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## 7.7 CONNECTIVITY (CHAPTER 8 OF RSES)

Chapter 8 of the draft RSES sets out Regional Policy Objectives in relation to the Transport and includes a number of RPOs for improved access, improved linkages (road and rail) and delivery of public transport and active transport options (greenways, walking routes, cycling routes) in addition to more specific reference to projects, some already in the planning process.

The delivery of any linear infrastructure has the potential for significant effects on European Sites including;

- Habitat loss or destruction during construction;
- Loss of key supporting habitats and ecosystem complexes during construction;
- Habitat fragmentation or degradation as a result of routing / siting
- Introduction of barriers to movement;
- Disturbance to habitats/species from noise, air light emissions;
- Species mortality from collision or resulting from disturbance of habitat;
- Alterations to water quality and/or water movement from drainage patterns;
- Alterations to air quality from transport related emissions especially road, air and sea transport;
- Introduction or spread of invasive species during construction and operation; and
- Alternations due to climate change from continued emissions of GHG.

Key Policy Area	Assessment	Mitigation
Integration of Transport and Landuse Planning	<p>RPO 8.1 – RPS 8.4 address integrated transport and land use planning. The policies present a list of guiding principles for integration of landuse and transport however none of the guiding principled explicitly deals with ecological matters, protection of the environment, European sites, protected habitats and species or the Natura 2000 network. While the guiding principles as presented will not impact on the integrity of any European site, it is acknowledged that they will inform decision making at lower planning levels and as such they offer an opportunity to increase awareness and protection of individual European sites and the Natura 2000 network as a whole.</p> <p>RPO 8.4 specifically references both the NTA's Transport Strategy for the GDA. This is currently undergoing SEA and AA and it</p>	<p>The guiding principles for integration of transport planning and land use planning should explicitly reference the protection of the Natura 2000 networks and the ecological linkages which support it.</p>

Key Policy Area	Assessment	Mitigation
	will be essential that the mitigation is applied through lower level land use plans once available.	
Local Transport Plans	RPO 8.5 requires the preparation of Local Transport Plans. There are no adverse effects on site integrity as a result of this policy. However given the subject matter of these plans it will be important to undertake AA to inform local solutions and mitigation measures which can avoid adverse impacts on site integrity through mitigation or compensation measures as appropriate.	AA of local transport plans will be required.
Rail Infrastructure	<p>Rail infrastructure has the potential to result in adverse effects on European sites through a number of pathways – see section 7.7.1 for discussion.</p> <p>It is noted that the rail projects supported in Table 8.2 of the RSES are supported, <i>subject to the outcome of appropriate environmental assessment and the planning process</i>. This qualification is welcomed as it clearly acknowledges that the proposals will require detailed consideration once project specific information is available.</p> <p>It is acknowledged that investment priorities for these strategic assets are administered by other agencies and departments and as such the reference in the draft RSES is subject to the outcome of appropriate environmental assessment and the planning process.</p> <p>Detailed and robust route and site selection will be required to inform decision making in relation to the rail projects listed. Chapter 3 of the draft RSES states the following:</p> <p><i>Feasibility studies will be carried out to support decision making in relation to policy base for this draft RSES and this will include an environmental appraisal which considers the potential effects on the wider environment, including specifically, the Natura 2000 Network. Furthermore, feasibility studies will be supported by robust site / route selection processes which consider a full range of alternative modes and technologies.</i></p>	As per the RPO, support for these projects is subject to <i>the outcome of appropriate environmental assessment and the planning process</i> . Furthermore as per commitments in Chapter 3 of the draft RSES Detailed and robust route and site selection will be required to inform decision making in relation to the rail projects listed.

Key Policy Area	Assessment	Mitigation
<p style="text-align: center;">Bus Infrastructure</p>	<p>Bus infrastructure has the potential to result in adverse effects on European sites through a number of pathways – see section 7.7.2 for discussion.</p> <p>It is noted that the bus projects supported in Table 8.3 of the RSES are supported, <i>subject to the outcome of appropriate environmental assessment and the planning process</i>. This qualification is welcomed as it clearly acknowledges that the proposals will require detailed consideration once project specific information is available.</p> <p>It is acknowledged that investment priorities for these strategic assets are administered by other agencies and departments and as such the reference in the draft RSES is subject to the outcome of appropriate environmental assessment and the planning process.</p> <p>Detailed and robust route and site selection will be required to inform decision making in relation to the rail projects listed. Chapter 3 of the draft RSES states the following:</p> <p><i>Feasibility studies will be carried out to support decision making in relation to policy base for this draft RSES and this will include an environmental appraisal which considers the potential effects on the wider environment, including specifically, the Natura 2000 Network. Furthermore, feasibility studies will be supported by robust site / route selection processes which consider a full range of alternative modes and technologies.</i></p>	<p>As per the RPO, support for these projects is subject to <i>the outcome of appropriate environmental assessment and the planning process</i>. Furthermore as per commitments in Chapter 3 of the draft RSES Detailed and robust route and site selection will be required to inform decision making in relation to the bus projects listed.</p>
<p style="text-align: center;">Investment in Improved Road Infrastructure</p>	<p>Road infrastructure has the potential to result in adverse effects on European sites through a number of pathways – see section 7.7.3 for discussion.</p> <p>It is noted that the bus projects supported in Table 8.3 of the RSES are supported, <i>subject to the outcome of appropriate environmental assessment and the planning process</i>. This qualification is welcomed as it clearly acknowledges that the proposals will require detailed consideration once project specific information is available.</p> <p>It is acknowledged that investment</p>	<p>As per the RPO, support for these projects is subject to <i>the outcome of appropriate environmental assessment and the planning process</i>. Furthermore as per commitments in Chapter 3 of the draft RSES detailed and robust route and site selection will be required to inform decision making in relation to the road projects listed.</p>

Key Policy Area	Assessment	Mitigation
	<p>priorities for these strategic assets are administered by other agencies and departments and as such the reference in the draft RSES is subject to the outcome of appropriate environmental assessment and the planning process.</p> <p>Detailed and robust route and site selection will be required to inform decision making in relation to the rail projects listed. Chapter 3 of the draft RSES states the following:</p> <p><i>Feasibility studies will be carried out to support decision making in relation to policy base for this draft RSES and this will include an environmental appraisal which considers the potential effects on the wider environment, including specifically, the Natura 2000 Network. Furthermore, feasibility studies will be supported by robust site/ route selection processes which consider a full range of alternative modes and technologies.</i></p>	
Dublin- Belfast Economic Corridor	<p>Rail and road infrastructure has the potential to result in adverse effects on European sites through a number of pathways. The EU TEN-T network as it relates to the Dublin Belfast Corridor has specific potential to adversely affect European sites as it passes adjacent to /over a number of European sites along the east coast including a number designated for birds– see section 7.7.4</p> <p>Chapter 3 of the draft RSES states the following:</p> <p><i>Feasibility studies will be carried out to support decision making in relation to policy base for this draft RSES and this will include an environmental appraisal which considers the potential effects on the wider environment, including specifically, the Natura 2000 Network. Furthermore, feasibility studies will be supported by robust site / route selection processes which consider a full range of alternative modes and technologies.</i></p>	<p>A specific development plan for this Dublin-Belfast corridor should be prepared in consultation with NI authorities. This should in turn be subject to AA once clear objectives and proposals are known.</p> <p><i>A feasibility study into the impact of high speed rail on the European sites along the corridor with particular attention to bird populations, between Belfast-Dublin-Cork will be required to inform decision making in relation to such a proposal.</i></p>
Rural Transport Programme	RPO 8.11 relates to the Rural Transport Network. No adverse effects on site integrity.	None
Park and Ride	Park and Ride infrastructure has the potential to result in adverse effects on	As per the RPO, support for these projects is subject to <i>the outcome</i>

Key Policy Area	Assessment	Mitigation
	<p>European sites through a number of pathways – see section 7.7.5 for discussion.</p> <p>It is noted that the bus projects supported in Table 8.5 of the RSES are supported, <i>subject to the outcome of appropriate environmental assessment and the planning process.</i> This qualification is welcomed as it clearly acknowledges that the proposals will require detailed consideration once project specific information is available.</p> <p>It is acknowledged that investment priorities for these strategic assets are administered by other agencies and departments and as such the reference in the draft RSES is subject to the outcome of appropriate environmental assessment and the planning process.</p> <p>Detailed and robust route and site selection will be required to inform decision making in relation to the rail projects listed. Chapter 3 of the draft RSES states the following:</p> <p><i>Feasibility studies will be carried out to support decision making in relation to policy base for this draft RSES and this will include an environmental appraisal which considers the potential effects on the wider environment, including specifically, the Natura 2000 Network. Furthermore, feasibility studies will be supported by robust site / route selection processes which consider a full range of alternative modes and technologies.</i></p>	<p><i>of appropriate environmental assessment and the planning process.</i> Furthermore as per commitments in Chapter 3 of the draft RSES detailed and robust route and site selection will be required to inform decision making in relation to the park and ride projects listed.</p>
Walking and Cycling	<p>Walking and cycling can impact both positively and negatively on European sites and this is addressed further in Section 1.1.6.</p> <p>Detailed and robust route and site selection will be required to inform decision making in relation to the rail projects listed. Chapter 3 of the draft RSES states the following:</p> <p><i>Feasibility studies will be carried out to support decision making in relation to policy base for this draft RSES and this will include an environmental appraisal which considers the potential effects on the wider</i></p>	<p>As per commitments in Chapter 3 of the draft RSES detailed and robust route and site selection will be required to inform decision making in relation to the walking and cycling infrastructure referenced with a view to identifying and subsequently avoiding high sensitivity feeding or nesting points for birds and other sensitive fauna.</p> <p>The mitigation measures provided for in the NIS for the National Cycle Plan and the GDA Cycle Network should be fully applied.</p>



Key Policy Area	Assessment	Mitigation
	<p><i>environment, including specifically, the Natura 2000 Network. Furthermore, feasibility studies will be supported by robust site / route selection processes which consider a full range of alternative modes and technologies.</i></p>	<p>The National Cycle Plan should undergo AA to align with the decision making applied to the GDA Cycle Network Strategy.</p>
International Connectivity	<p>RPO 8.13 and 8.14 support international gateways for Ireland. This broadly includes, ports, airports, road and rail connections. This infrastructure has potential to impact on site integrity. Pathways for impact of road and rail have been discussed above and for ports and airports they are discussed below.</p> <p>It is acknowledged that investment priorities for these strategic assets are administered by other agencies and departments.</p>	<p>As per the road and rail priorities listed elsewhere, support for investment in international gateways should be clearly linked to <i>the outcome of appropriate environmental assessment and the planning process</i>. Furthermore as per commitments in Chapter 3 of the draft RSES detailed and robust route and site selection will be required to inform decision making in relation to such projects.</p>
Dublin Airport	<p>RPO 8.15 has the potential for adverse effects on site integrity. Key pathways for impact are:</p> <ul style="list-style-type: none"> <li>▪ Noise disturbance of birds in SPAs along approach and landing paths to and from the airport;</li> <li>▪ Changes in water quality as a result of run-off and pollution events from actions such as de-icing;</li> <li>▪ In combination impacts from Metrolink and the other road and rail connections mentioned;</li> <li>▪ Changes in the habitat and conditions supporting European site function as a result of climate change.</li> </ul> <p>See section 7.7.7 for further discussion.</p> <p>Metrolink is in planning and will be subject to AA. The other references to rail and road connections will be subject to AA as part of planning when details are known.</p> <p>RPO 8.16 relates to a cycleway adjacent to the airport. No adverse effects on site integrity from this objective.</p> <p>RPO 8.17 – 8.18 relate to restrictions in</p>	<p>EMRA should seek to support an appraisal of the existing drainage systems in operation at Dublin Airport to ensure it is capturing pollutants to avoid downstream impacts on water quality which provides a direct link to European sites. An analysis of the drainage system for capacity to take increased air traffic movements associated with secondary hubbing proposals is also required to inform future planning.</p> <p>EMRA should seek to support a dedicated study into the impact of aircraft movements at Dublin Airport on European sites on landing and take-off flight paths to and from the airport to inform future project proposals and planning for strategic infrastructure at the airport.</p>

Key Policy Area	Assessment	Mitigation
	<p>planning for noise sensitive developments in the vicinity of noise and safety zones delineated around the airport. No adverse effects on site integrity from these objectives.</p>	
Ports	<p>Port infrastructure has the potential to result in adverse effects on European sites through a number of pathways – see <b>Section 7.7.8</b> for discussion.</p> <p>It is noted that the ports policy supported in Chapter 8 of the RSES is underpinned by RPO 8.22 which states that <i>EMRA supports the undertaking of feasibility studies to determine the carrying capacity of ports in relation to potential for likely significant effects on associated European sites including SPA and SAC</i>. This specific policy is welcomed as it clearly acknowledges the potential for port activities to adversely impact on the integrity of European sites within the zone of influence of the port.</p>	None
Communications Networks and Digital Infrastructure	<p>ICT infrastructure has the potential to result in adverse effects on European sites through a number of pathways – see section 7.7.9 for discussion.</p> <p>Detailed and robust route and site selection will be required to inform decision making in relation to the broadband roll out and other ICT infrastructure. Chapter 3 of the draft RSES states the following:</p> <p><i>Feasibility studies will be carried out to support decision making in relation to policy base for this draft RSES and this will include an environmental appraisal which considers the potential effects on the wider environment, including specifically, the Natura 2000 Network. Furthermore, feasibility studies will be supported by robust site / route selection processes which consider a full range of alternative modes and technologies.</i></p> <p>Consenting development of the broadband network at project level, the Local Authorities, or other Public Authorities/Competent Authorities where applicable, are responsible for ensuring that the installation or construction of the broadband network at local level will not</p>	The mitigation measures provided for in the NIS for the National Broadband Plan should be fully applied.

Key Policy Area	Assessment	Mitigation
	adversely affect the integrity of any European Sites. It is acknowledged that there is potential for likely significant effects on European Sites if a consistent and co-ordinated approach is not followed by the competent authorities for AA. As such the addition of RPO 8.24 is welcomed.	

### 7.7.1 Rail Infrastructure

It is noted that the rail projects supported in Table 8.2 of the RSES are supported, *subject to the outcome of appropriate environmental assessment and the planning process*. This qualification is welcomed as it clearly acknowledges that the proposals will require detailed consideration once project specific information is available.

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.

The DART, Luas and Metro lines proposed 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 through 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 (SPA), Malahide Estuary (SAC) and Rogerstown Estuary (SPA) where the rail line crosses directly through the European Sites, loss of protected habitat and habitat supporting QIs for these sites.

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. Proposed expansions to the Luas network will need to consider a wider remit of impact pathways as they move outward from the city confines. Any expansion to Bray for example will need to consider implications for Ballyman Glen SAC, which hosts priority habitat which is groundwater dependant. As identified in Table 8.2, appraisal is needed in the first instance to establish the feasibility of such an expansion. In line with the mitigation hierarchy, avoidance should be the first approach, and this necessitates details and robust route selection to inform such expansions. Key issues for the proposed Metro line will relate to surface water and groundwater pathways given the potential for underground sections.

The wider rail network at a regional scale also has potential for negative effects on the Natura 2000 network through support of commuter rails services in the midlands. While delivery of new / expanded 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. Emissions to air as a result of rail can give rise to NO<sub>x</sub>, SO<sub>x</sub> 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.

### 7.7.2 Bus Infrastructure

It is noted that the bus projects supported in Table 8.3 of the RSES are supported, *subject to the outcome of appropriate environmental assessment and the planning process*. This qualification is welcomed as it clearly acknowledges that the proposals will require detailed consideration once project specific information is available.

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.

No direct impacts to European sites from the proposed bus improvements identified. Potential for indirect effects as a result of temporary construction related effects from widening and / or resurfacing through drainage pathways.

### 7.7.3 Investment in Improved Strategic Road Connectivity

It is noted that the bus projects supported in Table 8.3 of the RSES are supported, *subject to the outcome of appropriate environmental assessment and the planning process*. This qualification is welcomed as it clearly acknowledges that the proposals will require detailed consideration once project specific information is available.

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 NO<sub>x</sub>, SO<sub>x</sub> 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<sub>2</sub> 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<sub>x</sub> 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<sup>-1</sup> yr<sup>-1</sup> (JNCC, 2011). Increases of up to 50% in canopy height at N-deposition rates of 45-50 kg N ha<sup>-1</sup> yr<sup>-1</sup> (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<sub>x</sub> 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<sub>10</sub>) 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<sub>2.5</sub>) (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).

The projects listed in Table 8.3 include a number which have potential for likely significant effects depending on the project solution proposed. This includes:

- M7 Naas to Newbridge project which is in proximity to Pollardstown Fen SAC and Maudes Bog SAC;
- N2 Slane which would require a crossing of the river Boyne and River Blackwater SAC and SPA;
- Laytown and Bettystown Link which is adjacent to the River Nanny Estuary and Shore SPA
- N4 Maynooth to Leixlip which is in proximity to the Ryewater Carton SAC
- N Mullingar to Longford which is directly adjacent to the Lough Owel SAC and SPA

Detailed and robust route and site selection will be required to inform decision making in relation to these road projects. These early stage assessments must consider initially potential for likely significant effects of the various routes / sites as part of multi-criteria assessment and where necessary criteria which address avoidance of adverse effects on integrity of European sites may be required as a differentiator in decision making if not clear low risk alternative presents itself. In this way the EMRA can support the delivery of sustainable solutions for transport which protect the integrity of European sites.

#### 7.7.4 Dublin Belfast Corridor

The corridor in question includes the Dublin Belfast rail line and M1/A1 Motorway as regionally significant transport infrastructure. Links to Dublin Airport and Belfast Port are also part of the EU TEN-T core network. This infrastructure intersects or is in proximity to the following sites:

- Rogerstown Estuary SPA and SAC
- Broadmeadow / Swords Estuary SPA
- Malahide Estuary SAC
- River Nanny Estuary and Shore SPA
- Boyne Coast and Estuary SAC
- Dundalk Bay SPA

In addition the corridor transport links passes close to the Boyne Estuary SPA and runs between the Stabannan-Braganstown SPA and Dundalk Bay SPA. Within NI jurisdiction the corridor is in proximity to Slieve Gullion SAC; Derryleckagh SAC; Mountloughs Moss SAC; Lough Neagh and Lough Beg SPA and Belfast Lough Open Water SPA.

No information is presented in relation to the nature of investment in transport infrastructure and services. Potential negative changes however could be anticipated in key indicators of conservation value including water and air quality; potential disturbance to key species; potential reduction of habitat area; and potential habitat or species fragmentation.

#### 7.7.5 Park and Ride

It is noted that the projects supported in Table 8.5 of the RSES are supported, *subject to the outcome of appropriate environmental assessment and the planning process*. This qualification is welcomed as it clearly acknowledges that the proposals will require detailed consideration once project specific information is available.

The provision of park and ride is positive, as it facilitates redirection of car travel toward more sustainable public transport options. These locations mentioned are not specific although several of the listed park and ride locations are near or adjacent to the coast; Woodbrook is approximately 3km north of Bray Head SAC and Greystones is located 1.2km south of the same European site. The NTA's indicative map of the proposed MetroLink Swords park and ride is located around the Seafield area, approximately a kilometre from Malahide Estuary SAC and Broadmeadow/Swords Estuary SPA. The Naas Road crosses the Grand Canal pNHA at Inchicore and Liffey Valley is directly adjacent to the Liffey Valley pNHA. As such there is potential for these proposals to impact indirectly on European sites through deterioration of habitats, disturbance of species, habitat fragmentation, deterioration of air and water quality locally etc. as a result of siting and drainage related issues. The extent of such potential cannot be determined at this stage.

Indirect impacts to European sites may also occur where park and ride facilities indirectly encourage recreational use of wild and protected areas in the wider area which could take in sensitive areas (e.g. Broadmeadow/Swords Estuary SPA is less than 1km from the proposed Seafield area proposed as a possible location for the MetroLink Swords Park and Ride as noted above). Understanding how customers will use the facilities beyond the basic concept will be an important element to avoiding unforeseen impacts. It may therefore be necessary to include design elements or incentivise customers to avoid sensitive habitats / locations as part of the design of these facilities.

### 7.7.6 Walking and Cycling

Climate change is a significant driver for negative impacts on European Sites therefore measures to reduce emissions should broadly be viewed as positive for the Natura 200 network as they contribute to improved air quality and reduced GHG emissions. However, promotion of smarter travel can result in direct and indirect likely significant effects on European Sites through land use change to develop greenways, cycleways or other cycling/walking infrastructure. This could include direct habitat loss, fragmentation or degradation to construct the infrastructure, species mortality during construction and operation, habitat and species disturbance due to increased human presence adjacent to or in close proximity to European Sites.

It is stated that policy measures outlined in the Connectivity Chapter have been prepared with regard to the *National Climate Change Mitigation Plan* and DTTAS's first adaptation plan for the transport sector, *Developing Resilience to Climate Change in the Irish Transport Sector* however it is not clear how a firm commitment to reducing GHG emissions is supported at regional level when no emission alternatives are not supported as RPOs.

Provision of cycleways is generally positive from an environmental perspective, but cycleways in proximity to sensitive sites and species may disturb wildlife, particularly feeding and nesting birds. Their construction may also impact on groundwater and surface water quality and quantity. The GDA Cycle Network Plan has undergone AA. It is noted within the AAs that some routes may have an impact on Natura 2000 sites and wider biodiversity. This is particularly the case along coastal sites and canal and river sites which by their linear nature can act as important links and stepping stones for biodiversity. The GDA plan notes that in all cases, avoidance of such impacts should be achievable, and details of the measures required to achieve this are given in that report. More detailed mitigation measures will be developed through the process of project-level Environmental Impact Assessment and Appropriate Assessment.

Provision of greenways and blueways may also result in indirect negative impacts; key issues for European Sites include the provision of support infrastructure such as slipways and quays, water pollution from fuel from boats, noise disturbance from 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. The policy base should include a clear objective to prevent the spread of IAS within the region. It is not clear if the national cycle plan has undergone AA.

### 7.7.7 Dublin Airport

Dublin Airport is not located within or adjacent to any European sites however there are a number of potential pathways for impact including emission to surface water, collision and noise disturbance. These have the potential for indirect negative impacts, particularly on downstream SAC and SPA in Dublin Bay and north and south of this. Those with hydrological connectivity and / or lie beneath an approach path include:

- Baldoyle Bay SAC
- Lambay Island SAC
- Rogerstown Estuary SAC
- Rockabill to Dalkey Island SAC
- Malahide Estuary SAC
- North Dublin Bay SAC
- South Dublin Bay SAC
- Baldoyle Bay SPA
- Lambay Island SPA
- Rogerstown Estuary SPA
- Broadmeadow/ Swords Estuary SPA
- Ireland's Eye SPA
- Howth Head Coast SPA
- North Bull Island SPA
- South Dublin Bay and River Tolka Estuary SPA

Water quality is known to be poor in a number of the rivers traversing the airport although it is acknowledged that a pollution control system is in place. RPO 8.15 supports the development of Dublin Airport as a secondary hub and it can be anticipated from this that it is proposed that more aircraft will land and take off at Dublin Airport. Activities such as de-icing, refuelling, general wear and tear of tyres etc. which generate pollutants along with run-off from the runways surface may also increase. In addition, there is significant development of lands around Dublin airport for residential, industrial and airport related functions as well as improved connectivity via road and rail proposals which is also changing the dynamics of rivers and streams in the catchment. An appraisal of the airport drainage system servicing the existing infrastructure at the airport is required to establish if it is adequately dealing with the existing emissions from the airport and associated infrastructure in a manner which achieves the Water Framework Objectives assigned to those water bodies. Further analysis is also required to determine how the increased capacity is to be achieved to facilitate growth of the airport as a secondary hub without adverse effects on the receiving waters and potentially the downstream European sites which have hydrological connectivity to the airport.

While there is no evidence to indicate that birds in the coastal SPAs on aircraft approach paths are disturbed by the aircraft movements, a dedicated study should be undertaken to inform future proposals at the airport, particularly in relation to any change to existing operations.



### 7.7.8 Ports

It is noted that the ports policy supported in Chapter 8 of the RSES is underpinned by RPO 8.22 which states that *EMRA supports the undertaking of feasibility studies to determine the carrying capacity of ports in relation to potential for likely significant effects on associated European sites including SPA and SAC*. This specific policy is welcomed as it clearly acknowledges the potential for port activities to adversely impact on the integrity of European sites within the zone of influence of the port.

A national ports policy was developed in 2013 to better address maritime transport services. The policy clearly delineated Tier 1 ports of international significance which includes Dublin Port, Tier 2 ports of national significance [none listed within EMR] and other ports of regional significance which include Drogheda, Dun Laoghaire Dundalk; Greenore and Wicklow.

All of these ports in the region are in or directly adjacent to European Sites and 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. Sources of impact at ports include:

- dredging (maintenance and / capital) resulting in changes in coastal processes and sediment budgets commercial shipping and associated noise and disturbance;
- emissions of to water and air [leading to reduced quality](#);
- waste generation and land reclamation;
- attraction of associated industrial development;
- traffic accessing the port
- contaminated land issues;
- [spread of invasive species](#); and
- construction activities.

These in turn give rise to pressures on adjacent SAC and SPA and potentially on other [European sites with connectivity including those in Northern Ireland](#). Key pressures include:

- Direct and indirect disturbance to QI/SCI habitats and/or species of European Sites from commercial shipping and associated noise and disturbance spread of invasive species
- Loss / disturbance to feeding or nesting areas for Annex bird species as a result of expansion of activities and land reclamation;
- Disruption of feeding resources for Annex bird species as a result of expansion of activities and land reclamation and encroachment;
- Underwater noise disturbance leading to behavioural change and/ or physical injury in marine mammals as a result of piling and other engineering activity.
- Deterioration in water quality result in deterioration of wetland, marine and coastal habitats with respect to their water quality and favourable conservation status as a result of suspended sediments and/or contaminants escaping into the marine environment during marine engineering construction.

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 must adhere to these guidelines in order to protect the European Sites.

RPO 6.19 supports Dublin Port as a Tier 1 port and references expansion and improved transport links. An AA has been completed on the revised Dublin Port Masterplan 2040 and this identified the key pathways for impact as:

- Water quality and habitat deterioration
- Underwater noise and disturbance
- Aerial noise and visual disturbance
- Habitat loss

The NIS for the Dublin Port Masterplan noted potential *adverse effects on the integrity of the South Dublin Bay and River Tolka Estuary SPA to occur at project stage as a result of bringing forward some development options in the medium term of the Masterplan to provide new deepwater Lo-Lo and multipurpose berths in a location incompatible with the existing tern breeding site on the ESB dolphin. A negative assessment of the implications for this SPA must meet the requirements of Article 6(4) of the Habitats Directive by demonstrating an absence of alternative solutions and imperative reasons of overriding public interest including those of a social or economic nature, if a consent is to be granted.*

Any plans to facilitate growth and port access must first ensure that it will not have any adverse effects on the integrity of the site(s) and if necessary meet the requirements of Article 6(4) of the Habitats Directive. This is supported by RPO 8.22.

It is also noted that there is uncertainty in relation to the effects of Brexit on level of activity at Dublin Port which is a link for distribution of goods from Northern Ireland to the UK.

### 7.7.9 Communications Networks and Digital Infrastructure

Impacts to European Sites arising from communications networks and digital infrastructure differ depending on the type of technology used. For example, stringing cables onto existing overhead telecommunications infrastructure typically occurs alongside the road network, as this is the existing location of much of the telecommunications infrastructure. However, existing overhead electricity infrastructure typically transverses rural countryside and therefore stringing cables onto this infrastructure involves carrying out works in off-road areas and carries an increased likelihood of having access to European Sites.

Where existing utilities infrastructure is used for roll-out of communications networks and digital infrastructure, potential for likely significant effects on European Sites can arise from installation, operation and maintenance of same. The main effects on European Sites associated with this include:

- Direct habitat loss of European Sites if infrastructure is constructed within the Sites;
- Direct or indirect habitat loss or fragmentation through loss of small patches of habitat within a larger European Site to facilitate access/installation of infrastructure if the existing utilities infrastructure was already 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 or treelines through small scale clearance to facilitate access/installation of the broadband network.
- Destruction of species and habitat within and outside of European Sites during installation of the network e.g. destruction of Otter holts along 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 installation and maintenance of the network.
- Potential direct loss of species through collision with the network e.g. birds colliding with overhead wires or masts. It should be noted that the existing utilities over ground network may have collision impacts already associated with it which could lead to cumulative collision impacts.
- 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;
- Potential alteration to ground water movement through installation of underground cable routes and masts which could impact water dependent habitats and species; and
- Direct and indirect disturbance to QI/SCI habitats and/or species of European Sites<sup>12</sup> located in the vicinity during installation and operation/maintenance of the infrastructure e.g. via noise or human disturbance.
- Impacts on water quality both ex-situ and in-situ arising from installation/construction works, such as sedimentation and release nutrients from soil which could impact water dependent habitats and species. This is also relevant to the maintenance/operation of the network.
- 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 installation and operation/maintenance of the network or materials required for construction and operation/maintenance of the network.

#### 7.7.10 Climate Change Impacts on Biodiversity and the Natura 2000 Network

Global warming and climate change are recognised threats to biodiversity, and specifically European sites. It is acknowledged that climate change can have both positive and negative impacts on biodiversity which poses complex problems for planning and particularly nature conservation policy and practice which is seeking to mitigate and adapt to climate change. Numerous studies have been conducted in Ireland and the UK investigating the impacts of climate change on biodiversity and the conservation status of European sites.

In Ireland, the EPA funded research investigating the impacts of climate change on the nature conservation resources of Ireland, through the use of ecological modelling as part of their 2007-2013 research programme<sup>13</sup>. 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.).

This is also acknowledged in the National Biodiversity Action Plan 2017-2021 which also highlights negative impacts on a suite of species from climate change.

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<sup>12</sup> Including potential transboundary impacts on European Sites in Northern Ireland for which there is a pathway of connectivity as a result of the implementation of the Intervention Strategy.

<sup>13</sup> EPA Climate change Research Programme (CCRP) 2007-2013 Report Series No. 19. *Winners and Losers: Climate change impacts on Biodiversity in Ireland.*

## Habitats and Vegetation

Peatlands i.e. raised bogs, blanket bogs and fens, cover c. 21% of Ireland's land cover (NPWS, 2015). Peat-forming bogs (i.e. active bogs) act as important long-term carbon sinks. Although their distribution is limited to approximately 2-3% of the earth's land surface (Heijmans et al., 2008), peat accumulation has resulted in vast quantities of carbon being stored in bogs; equating to approximately 20% of the global carbon store held in terrestrial ecosystems (Gorham 1991). Bogland species typically consist of Sphagnum (the main peat forming species) and other vascular plant species. A study using ecological modelling found that areas dominated by Sphagnum, at the expense of vascular plants, typically exhibit higher carbon sequestration rates. This study further highlighted that Sphagnum growth rate typically increases when exposed to increased ambient CO<sub>2</sub> concentrations. This is due to this species being less nutrient-limited than other vascular plant species typically found on bogs and therefore gaining competitive advantage. It is also linked to the increased water use efficiency of Sphagnum (Heijmans et al., 2008). These findings indicate towards the close relationship between atmospheric carbon concentrations and peat-formation rates and highlight the possible effects that changing atmospheric carbon concentrations could have on the future of peatlands and their associated biodiversity.

A national study (BOGLANDS) carried out from 2007 to 2013 on the peatlands of Ireland (EPA, 2011) highlighted the importance of climate change in relation to peatlands and the impacts it has on peatland biodiversity. Elevated air temperatures due to global warming has resulted in the "melting of permafrost peatlands" (Camill, 2005) and altered vegetation patterns in temperate peatlands (Chapman et al., 2001; Gunnarsson et al., 2002). As part of the BOGLANDS study, climate change scenario data was analysed to investigate future projections of climate change and the sensitivity of different Irish peatlands. These analyses outputs showed that predicted changes will affect low Atlantic blanket bogs in the West of Ireland the least. The outputs also showed that these predicted changes in climate are likely to place peatlands under severe stress resulting in significant impacts on the peatland carbon store, GHG fluxes and biodiversity (EPA, 2011).

Other studies have been conducted investigating the impacts of elevated atmospheric carbon dioxide on peatland vegetation and some show that plant productivity increases with increasing carbon dioxide levels (Kang et al., 2001; Saarnio et al., 2003), leading to a subsequent increase in soil respiration (Norby, 1997) and methane emissions (Dacey et al., 1994; Saarnio and Silvola, 1999). This alteration of the soil habitat and floral composition is likely to affect the biodiversity of the peatland habitat.

Peatlands worldwide act as a major sink of carbon, naturally mitigating anthropogenic rises in atmospheric carbon dioxide. However, degraded peatlands, where there is drawdown of the water table and a drying-out of the peat, release the stored carbon as carbon dioxide emissions. As a result of this, the situation in Ireland is thought to differ from the sink scenario, due to the high levels of degradation of Irish peatlands. The areas of degraded peat are emitting greater amounts of carbon dioxide than the areas which are sequestering this GHG (Wilson, 2008) resulting in a source scenario, rather than a sink. This further exacerbates the impacts of elevated atmospheric carbon and likely results in declines in peatland biodiversity.

A modelling study carried out by the Irish EPA as part of their 2007-2013 research programme<sup>14</sup> investigated the impacts of climate change on biodiversity in Ireland. Modelling outputs suggested that "species representative of Arctic-montane, boreal-montane and boreo-arctic montane biomes will be most vulnerable" to the impacts of climate change as these species in Ireland will not have

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<sup>14</sup> EPA Climate change Research Programme (CCRP) 2007-2013 Report Series No. 19. *Winners and Losers: Climate change impacts on Biodiversity in Ireland.*

higher altitudes and latitudes to move to. Whereas, species with “disjunct and narrow distributions are projected to experience the largest range changes, contracting and expanding, respectively”. Some of the key messages from this study were that widespread changes are already occurring in natural ecosystems and these will continue, but will accelerate in scope and scale in the coming decade due to GHG already in the atmosphere. However, it also outlines that the scale and extent of changes will continue to accelerate over longer timescales if GHGs emissions continue or increase.

Montane heath habitats (comparable to the protected ‘Alpine & Subalpine heath’ habitats found in Ireland) are also experiencing impacts on their biodiversity due to climate change caused by GHGs; due to montane species limited adaptability they are extremely vulnerable to the effects of climate change (Berry et al., 2003), such as elevated temperature and ambient carbon dioxide concentrations. This results in intensified pressure on montane biodiversity (Perrin et al., 2009).

Climate change can impact different habitats in varying ways. Although indications suggest that protected areas are likely to retain ‘climatic suitability’ for species more so than unprotected/undesigned areas, studies have shown that in fact European Sites retain climatic suitability no more or no better than unprotected areas and sometimes are even less effective than unprotected areas (Araújo et al., 2011).

Coll et al. (2012) suggest that policy initiatives in Ireland, aimed at reducing climate change impacts on biodiversity need to focus on two key habitat types:

- The first type are that of ‘displaced refugia’ where ‘species are able to find suitable habitats after they have been displaced by climate change from their original location’; and
- The second areas are ‘regions of high connectivity that allow species to track climate changes through dispersal’.

They therefore surmise that efforts are needed to integrate protected/designated areas into wider landscapes, seascapes and sectors. This can be achieved through the use of connectivity measures, i.e. development of ecological networks and corridors. In addition to this, restoration of already degraded habitats is essential to addressing climate change impacts and increasing the habitats resilience to climate change (Coll et al., 2012). This is more appropriately addressed through climate change adaptation strategies more so than mitigation; mitigation dealing with the causes of climate change and adaptation dealing with the impacts of climate change.

The effects of climate change going forward will have major consequences for the species which European sites are designated. Impacts on species will differ greatly and may result in alterations of the species composition which define the habitats on which site designation is based upon. Future designation of sites will therefore need to incorporate projected climate change impacts. Management of current sites will also need to take account of projected climate change impacts and appropriate adaptation strategies must be developed. In order for this to occur, dynamic systems for designating sites may be required as species ranges change (Coll et al., 2012).

Climate change can impact the biodiversity of terrestrial sites through impacts on vegetation also. One example of such an impact is the effect of elevated CO<sub>2</sub> on plant responses; elevated atmospheric CO<sub>2</sub> can influence plant responses to various stressors, such as water availability (Cowling and Sykes, 1999; Farquhar and Sharkey, 1982). Short-term measurements showed that under elevated CO<sub>2</sub> conditions, plants showed reduced transpiration rates and exhibited increased water use efficiency (WUE) (Farquhar and Sharkey, 1982). This alteration of plant responses can alter

the plants vulnerability to the impacts of climate change and the varying environmental conditions that can occur.

In recent geological time (the Pleistocene era), atmospheric CO<sub>2</sub> concentrations were 25–50% below the current level (Cowling and Sykes, 1999; Sage and Coleman, 2001). It is known that photosynthetic productivity of certain plants (known as C3 plants) is significantly reduced at these low CO<sub>2</sub> levels, which is further compounded by higher temperatures and during stress. Photosynthesis may have acclimated to these reduced CO<sub>2</sub> concentrations in order to compensate for this inhibition. However, plants have limited control of Rubisco (an enzyme involved in carbon fixation) and other photosynthetic protein production following CO<sub>2</sub> reduction. Therefore, it is postulated that low CO<sub>2</sub> levels resulted in the evolutionary selection of plants adapted to CO<sub>2</sub> deficiency. Sage and Coleman (2001) postulated that adaptations to low CO<sub>2</sub> concentrations may still exist in plants and therefore may constrain responses to rising CO<sub>2</sub> concentration, resulting from ever increasing anthropogenic emissions. This response formed the basis for their prediction that low atmospheric CO<sub>2</sub> would have had a greater impact on vegetation in mid-latitude, warm-temperature climates than cold habitats. This study found that reducing ambient CO<sub>2</sub> from 360ppm to 180ppm caused a plant biomass decline of 50%, potentially due to a decline in productivity. This study highlights the unlikely scenarios that can occur as a result of reducing GHG's; plant production may actually decline in response to reducing anthropogenic emissions, thereby reducing atmospheric CO<sub>2</sub> levels.

A phenomenon known to occur under elevated CO<sub>2</sub> concentrations is known as the “nitrogen dilution effect” (Veteli, 2003). This phenomenon describes the scenario where plants commonly have decreased foliar nitrogen concentrations when grown under elevated CO<sub>2</sub>, i.e. an increase in the C:N ratio. Lincoln et al. (1993) stated that this effect is dependent on; the carbon fixation pathway of the plant species (i.e. C3 or C4 plant); the plant species and community; and the availability of other resources. This phenomenon has been observed for agricultural and non-domesticated species in many habitats (Lincoln et al., 1993; Bezemer and Jones, 1998). In nearly all studies which investigated this phenomenon it was found that nitrogen concentrations had decreased by an average of 15% (Bezemer and Jones, 1998).

### Coastal and Estuarine Habitats

Increasing levels of GHGs and primarily CO<sub>2</sub>, are of particular concern when considering the biodiversity within coastal, estuarine and marine habitats. Ireland is home to numerous coastal, estuarine and marine protected habitats, with many also designated as priority habitats under Annex I of the Habitats Directive (92/43/EEC), e.g. coastal lagoons, fixed dunes (grey dunes), decalcified dune heath and machair. Coastal, estuarine and marine habitats are particularly sensitive to elevated atmospheric carbon inputs due to the multitude of impacts that occur as a result, such as:

- Increased water temperature due to global warming effects;
- Ocean acidification;
- Decreased shellfish calcification (Gazeau et al., 2007); and
- Altered thermal stratification patterns of lagoons.

Approximately one third of the world's anthropogenic CO<sub>2</sub> emissions are stored in the Earth's oceans, at a rate of approximately 22 million tonnes of carbon dioxide a day (Feeley et al., 2006), which has resulted in a decline in pH (Orr *et al.*, 2005) and is predicted to further decline in the future (Caldeira and Wickett, 2003). Ocean acidification has been noted occurring in the offshore

coastal areas of Ireland (ICES, 2014); the recent State of the Environment Report 2016 (EPA, 2016) noted ocean acidification of Irish waters as potentially “very damaging” to marine organisms and further stated that it is a concern worldwide, due to increasing climate change.

A report by the EU Commission (COM, 2009) assessing the impacts of climate change on water, coasts and marine systems in Europe predicted that marine ecosystems and marine biodiversity will in the future continue to be impacted by elevated atmospheric CO<sub>2</sub>, through ocean acidification; impacts to biodiversity will occur through alterations to species fecundity, feeding patterns and distribution, increased frequency of algal blooms and altered distributions of planktonic organisms.

Declining ocean pH has many direct and indirect impacts on biodiversity. One such negative impact is the decreased calcification of many shellfish species. Ocean acidification results in decreased pH of the waters and a consequent decrease in calcium carbonate saturation. This decreased availability of calcium carbonate in the water impacts calcareous organisms greatly as they depend on soluble calcium carbonate to synthesis their protective shells. Experiments have shown that at elevated CO<sub>2</sub> coralline algae, coccolithophorids and foraminifera exhibit reduced size and reduced calcification (Agegian, 1985; Bijma et al., 1999; Leclercq et al., 2000; Riebesell et al., 2000; Langdon and Atkinson, 2005) and a more recent study also exhibited this effect in relation to two common bivalves; the edible mussel (*Mytilus edulis*) and Pacific oyster (*Crassostrea gigas*) showed a negatively correlated linear relationship between calcification and CO<sub>2</sub> concentration. These declines in such shellfish species can have significant impacts on “coastal biodiversity and ecosystem functioning and services” (Gazeau et al., 2007).

The direct impacts of decreased calcification on calcifying marine organisms is evident, however a number of indirect impacts can occur also; in response to reduced calcium carbonate saturation in oceans, calcifying organisms may adapt to this change by shifting their spatial distribution and moving to areas of higher carbonate ion concentrations (Doney et al., 2009). This may result in significant negative impacts on the associated flora and fauna (Burns, 2008). Another indirect impact is the potential loss of important habitats such as cold-water coral reefs (found along the west coast of Ireland) and/or maërl beds which would likely result in reduced local biodiversity (Ní Longphuirt et al., 2010).

Juvenile bivalves are extremely sensitive to the impacts of ocean acidification; a link has been observed between high mortality of juveniles and calcium carbonate dissolution (Green et al., 2004). This impact can result in a loss of juvenile stages of many bivalve species resulting in reduced biodiversity.

Some marine organisms are also at risk of hypercapnia (excessive CO<sub>2</sub> in the blood) and acidosis (serious condition resulting from hypercapnia) due to ocean acidification (Findlay et al., 2008; Pörtner et al., 2004, Shirayama & Thornton 2005, Miles et al., 2007). This increased rate of hypercapnia and acidosis can result in increased mortality thereby reducing the biodiversity of marine habitats experiencing elevated CO<sub>2</sub> or CO<sub>2</sub> saturation.

### **Impacts on Species**

Ireland currently plays host to 61 species (flora and fauna) protected under Annex II of the EU Habitats Directive 92/43/EEC13. Responses to climate change and elevated atmospheric CO<sub>2</sub> in particular are species-specific (as seen above with calcifying marine organisms) and must therefore be investigated individually. Although broad observations can be made for various faunal (birds, fish, mammals) or floral (angiosperms, gymnosperms, algae, bryophytes) groups, investigations at species level elicit more accurate predictions of future impacts to species, with increasing carbon dioxide

concentrations. For the purposes of this report, a number of species will be discussed in detail with regard to the impact of climate change and elevated atmospheric CO<sub>2</sub> concentrations on their populations and inferences will be made as to the impacts this has on the biodiversity of their corresponding habitats.

It is known that as concentrations of atmospheric CO<sub>2</sub> increase forage quality typically decreases and this may affect the foraging habits of grazing and browsing animals (Dukes, 2000). Although cattle farmers may be able to maintain livestock populations at current levels (i.e. under current concentrations of atmospheric CO<sub>2</sub>) by supplementing the livestock feed with nutritional additives, the growth and reproduction of wild fauna is likely to experience a decline due to deterioration of foraging habitat (Owensby et al. 1996).

The European Commission conducted a modelling and analyses study into the impacts of climate change on 212 species of Community Interest for which model data was available, within the Natura 2000 Network in Europe (EC, 2009). The study “assessed the direct impacts of climate change on the Natura 2000 network and also related the results of the species vulnerability assessments to the Natura 2000 network”.

The findings of the study were as follows:

- For breeding birds one out of the 149 species assessed was seen to react positively to climate change. However, in European Sites in the Mediterranean biogeographic region, about 78% of species fall into the top four vulnerability categories; extremely critically vulnerable, critically vulnerable, very highly vulnerable and highly vulnerable;
- Vascular plants did not show large numbers of highly vulnerable species; and
- Protected butterfly species in European Sites exhibit low or moderate vulnerability to climate change.

The Waxwing (*Bombycilla garrulous*) nests in northern Scandinavia and winters in central Europe. Although small numbers of Waxwings are seen in Ireland each winter, unusually high numbers of the species have been sighted in Ireland in winter 2017 (Holland, 2017). This is thought to be due to the abnormally low temperatures occurring across central Europe, an occurrence that may be attributed to climate change. The Waxwing feeds almost exclusively on berries during the winter months. However due to the freezing temperatures across central Europe their food supply has been depleted and therefore it is thought that birds are moving towards Ireland in search of a more plentiful supply of berries. Flocks of up to 400 birds have been observed in Ireland. Thus the species range may be altering due to effects of climate change.

### **Positive Impacts of Elevated Carbon Dioxide on Biodiversity**

Although elevated atmospheric carbon dioxide is largely thought to have solely negative impacts on vegetation and botanical biodiversity it has been shown that elevated CO<sub>2</sub> can sometimes positively impact vegetation.

Numerous studies have been conducted to investigate the impact of elevated CO<sub>2</sub> on plant productivity, primarily due to concerns over food security and crop yields. In over 1000 studies it was conclusively shown that a doubling in the atmospheric concentration of CO<sub>2</sub> resulted in a c. 33% increase in C3 crop yields and a c. 10% increase in C4 crop yields (Kimball, 1985; Cure and Acock, 1986). Other studies have also shown that plants grown at elevated CO<sub>2</sub> concentrations exhibit increased water use efficiency (Dukes and Mooney, 1999), which is preferential should drought



events increase in frequency with climate change. This highlights the potentially negative impact that reducing atmospheric CO<sub>2</sub> may have on plant productivity, which may have knock-on effects such as reduced crop yields and food shortages.

As plants typically increase their water use efficiency in response to growth under elevated CO<sub>2</sub> concentrations, this is likely to allow some species, annual grasses for example, to extend their ranges further into drier, more arid regions. However, in more mesic areas, grassland dominant species increasing in water use efficiency will likely increase deep water percolation. This will benefit shrubs and other deep-rooting species. This may result in rapid population increases in leguminous shrubs due to their deep-rooting patterns and increased N fixation, as rising CO<sub>2</sub> concentration stimulates N fixation (Dukes, 2000).

A number of insect species have been shown to benefit from increased atmospheric concentrations of carbon dioxide. Some studies investigating aphid populations suggest that populations could increase under elevated CO<sub>2</sub> concentration, due to increased fecundity and longer settling time on foliage (Awmack *et al.* 1996; Smith 1996). However, it is thought that this effect may be dependent on the host plant species. For example, the potato aphid (*Aulacorthum solani*) population levels respond quite differently to elevated CO<sub>2</sub> concentration dependent on whether it is feeding on bean (*Vicia faba*) or tansy (*Tanacetum vulgare*) (Awmack *et al.*, 1997).

Light-bellied brent goose (*Branta bernicla hrota*) is a long distance Arctic migratory species that winters in Ireland, utilising the many grasslands and estuaries as feeding grounds. This species is amber-listed as the largest proportion of the global population winter at less than ten sites in Ireland, thereby making the Irish population internationally significant. A recent study was published in the UK (Cleasby *et al.*, 2016) which looked at the impacts of climate change on the species. The primary focus of this study was the potential impact climate change is having on the reproductive rates of females and the survival rates of males and females and possible links between these rates. It is known that migratory species such as the Brent goose are particularly sensitive to climate impacts due to the various climatic conditions they must endure throughout their annual cycle.

The study was conducted using integrated population models (IPM) and demonstrated that climatic conditions, when experienced at the start of the breeding season, exerted the most influence on survival and fecundity and resulted in these rates occurring in opposite directions (Cleasby *et al.*, 2016), and therefore were the biggest driver of population vital rates, which has previously been concluded in other studies also (Boyd, 1987; Gaston *et al.*, 2005). Because climatic conditions appear to have “opposing effects on different demographic rates” (Cleasby *et al.*, 2016; Oudenhove *et al.*, 2014) the interactions between these rates is likely important and should not be ignored in future studies of climate change impacts.

Another interesting finding of this study related to the survival rates of male brent geese versus female and the influence of climate. It was found that when June North Atlantic Oscillation (NAO) values were negative (negative NAO indices during the summer represent favourable environmental conditions for breeding) female survival rates declined. However, this correlation was not seen for male geese (Cleasby *et al.*, 2016; Oro *et al.*, 2010). Therefore, it could be reasoned that female survival rates are lowest in years when productivity rates are highest. This led the researchers to the conclusion that the most likely cause of this relationship between survival rate and climatic conditions is that it is driven by a “classic life-history trade-off between investing in reproduction versus self-maintenance” (Williams, 1966), partly influence by environmental conditions. It is thought that decreased survival rates during increased productivity years is due to increased predation rates (Hagen *et al.*, 2007) as female birds are spending longer sitting on nests, leaving them more vulnerable to predators. The take-home message from this report is that climate change

has the potential to affect population dynamics in this species (Cleasby et al., 2016) and therefore affect biodiversity of a number of geographical locations due to the numerous habitats the geese utilise during their annual cycle.

In the Japanese beetle (*Popillia japonica* Newman) elevated atmospheric carbon dioxide and the resultant increase in ambient temperature are known to effect herbivory rates in native and agricultural communities (Niziolek et al., 2012). Niziolek et al. (2012) investigated the impacts of elevated carbon dioxide and elevated temperature on soybean crops and on the herbivory rates of the Japanese beetle which feeds upon it. Elevated CO<sub>2</sub> and elevated temperature were investigated individually and in conjunction. It was known, from previous studies, that when soybeans were exposed to levels of CO<sub>2</sub> predicted to occur by 2050, the damage to foliage greatly increased due to increased chewing by insects, the Japanese beetle in particular (Coviella & Trumble, 1999; Hamilton et al., 2005; Dermody et al., 2008). It was also known that when the beetle fed on foliage grown under elevated CO<sub>2</sub> conditions the survivorship of the beetles increased (O'Neill et al., 2008). However, Niziolek et al. (2012) found that when elevated CO<sub>2</sub> was applied simultaneously with elevated temperature (as would occur under such conditions in the troposphere), the effect of temperature on leaf damage appeared stronger than the effect of elevated CO<sub>2</sub>. This was thought to be likely due to the direct effect of the temperature increase on insect metabolism. This response may indicate that under elevated temperature and CO<sub>2</sub> concentration, as the climate warms from anthropogenic impacts, soybean may experience greater foliage damage.

This study showed that with elevated temperature Japanese beetles will spend more time feeding, along with an increase in herbivory rate and will not experience a decline in overall survivorship, given that there are no other changes in beetle behaviour and physiology (Niziolek et al., 2012). This exhibits how elevated carbon dioxide and elevated temperature, conditions predicted under climate change, can benefit a species. However, this is with consequent impacts to the food plant, the soybean.

While much of the research discussed above includes habitats and species wider than the Irish context, it illustrates the extent of potential impacts associated with biodiversity as a result of climate change. The EPA Climate Change Research Report on the winners and losers in Irish biodiversity 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.

## **7.8 QUALITY OF LIFE (CHAPTER 9 OF RSES)**

Chapter 9 of the draft RSES sets out the RPOs in relation to both quality of life and placemaking. It is the acknowledgement that the place or environment in which we live or work, including its physical nature and social environment or community, has a profound impact on physical and mental health wellbeing, and quality of life.

Placemaking is an essential link between spatial planning and facilitating improvements in people's quality of life, and Irish culture has a longstanding identification with place. The goal of this is to use

placemaking to improve quality of life through, *inter alia*, planning and integration, availability and access to services.

Key Policy Area	Assessment
<p><b>RPOs</b>  <b>Promoting Healthy and Attractive Communities</b></p>	<p>RPO 9.1 and 9.2 relate to initiatives to improve special integration. No potential for adverse effects on the integrity of any European Sites.</p>
<p><b>Mitigation:</b> None required</p>	

Key Policy Area	Assessment
<p><b>RPOs</b>  <b>Housing</b></p>	<p>RPO 9.3, 9.4, 9.5 and 9.6 relate to supporting policies for housing development, specifically, the provision of affordable, appropriate and adaptable accommodation, also reflecting the strategic outcomes and policy objectives of the NPF. No potential for adverse effects on the integrity of any European Sites.</p> <p>See also Section 7.3 for further consideration.</p>
<p><b>Mitigation:</b> None required</p>	

Key Policy Area	Assessment
<p><b>RPOs</b>  <b>Placemaking</b></p>	<p>RPO 9.7 and 9.8 relate to urban placemaking and transforming the spaces between buildings into vibrant urban spaces that offer comfort, safety and inspiration. The objective of these RPOs is to improve human wellbeing and enhance the attractiveness of places for business investment, visitors, workers and shoppers. This will be achieved through ongoing improvements to the physical and social infrastructure of urban centres. No potential for adverse effects on the integrity of any European Sites.</p> <p>See also Section 7.3 for further consideration.</p>
<p><b>Mitigation:</b> None required</p>	

Key Policy Area	Assessment
<p><b>RPOs</b>  <b>Compact Urban Development Targets</b></p>	<p>RPO 9.9 relates to the need for compact growth in line with one of the key elements of the NPF. To achieve this, the approach taken will be the regeneration of infill and brownfield sites, for sustainable compact growth and revitalisation of existing settlements to ensure they achieve their full potential. No potential for adverse effects on the integrity of any European Sites.</p> <p>See also Section 7.3 for further consideration.</p>
<p><b>Mitigation:</b> None required</p>	

Key Policy Area	Assessment
<b>RPOs Regeneration</b>	<p>RPO 9.10 supports the National Land Development Agency in co-ordinating strategically located landbanks, particularly publicly owned lands, in city and town centres that require consolidation and aggregation of land to enable regeneration. This is a supporting policy objective that will not result in potential adverse effects on the integrity of any European Site.</p> <p>RPOs 9.11 and 9.12 are also supporting policies relating to working with Local Authorities in their promotion of urban development and regeneration in line with the Guiding Principles set out in the draft RSES. No potential for adverse effects on the integrity of any European Sites. These are supporting policy objectives that will not result in potential adverse effects on the integrity of any European Site.</p> <p>RPO 9.13 relates to the exploration of ways to effectively deal with waste and contamination relating to brownfield generation and as such there is no potential for adverse effects on the integrity of European Sites.</p> <p>See also Section 7.3 for further consideration.</p>
<b>Mitigation:</b> None required	

Key Policy Area	Assessment
<b>RPOs Social Inclusion</b>	<p>RPO 9.14 relates to the integration of all persons in a community in an equal manner. This is in line with the Economic Strategy of the draft RSES which seeks to promote the creation of quality jobs that support a decent standard of living and afford economic security. No potential for adverse effects on the integrity of any European Sites.</p>
<b>Mitigation:</b> None required	

Key Policy Area	Assessment
<b>RPOs Childcare, education and lifelong learning</b>	<p>RPO 9.15 supports investment in the sustainable development of childcare services as an integral part of regional infrastructure, while RPO 9.16 relates to the provision of accessible schools in areas where significant new housing is proposed. There is no potential for adverse effects on the integrity of any European Sites.</p> <p>These RPOs relate to the development of key settlement areas. See also Section 7.3 for further consideration.</p>
<b>Mitigation:</b> None required	

Key Policy Area	Assessment
<b>RPOs Access to Social Infrastructure</b>	RPO 9.17 supports the role of LCEPs in planning for social infrastructure needs. RPO 9.18 ensures that new social infrastructure developments are accessible and inclusive. No potential for adverse effects on the integrity of any European Sites.  See also Section 7.3 for further consideration.
<b>Mitigation:</b> None required	

Key Policy Area	Assessment
<b>RPOs Recreation and Open Space</b>	RPO 9.19 and 9.20 are supporting policies for the provision of easily accessible social, community, cultural and recreational facilities to meet the needs of the communities they serve. This includes the objectives of the National Sports Policy to increase sport and physical activity participation levels locally. The function is to support the provision of improved opportunities for recreation and the creation of attractive green spaces, rich in biodiversity in order to contribute to improved physical and mental health. No potential for adverse effects on the integrity of any European Sites.  See Section 7.3 for further consideration.
<b>Mitigation:</b> None required	

Key Policy Area	Assessment
<b>RPOs Provision of Health Services</b>	RPO 9.21 and 9.22 are support the objectives of public health policy and facilitate the development of healthcare facilities to cater for the specific needs of an ageing population. This will be achieved in accordance with draft RSES settlement strategy and core strategies of development plans.  See Section 7.3 for further consideration.
<b>Mitigation:</b> None required	

Key Policy Area	Assessment
<b>RPOs Arts, Culture and Heritage</b>	RPO 9.23 relates to the promotion of the role of arts and culture and harnessing its potential for economic development through a unique cultural tourism offering.  RPO 9.24 promotes cultural and heritage led urban and rural regeneration.  RPO 9.25 relates to supporting the clustering of the film and audio visual sector in the Dublin and Wicklow areas in addition to supporting the training of people in that industry and exploiting opportunities within the industry outside of these hubs.  RPO 9.26 seeks to promote historic towns in the Region in the practice

	<p>of heritage led regeneration through appropriate reuse of historic building stock and industrial structures. This will be carried out with the aim of strengthening their capability to draw down European and national funding.</p> <p>RPO 9.27 is a supporting policy for the implementation of language plans for the Region’s Gaeltachts.</p> <p>RPO 9.28 supports the designation of UNESCO candidate sites in the region for the protection of cultural heritage resources.</p> <p>No potential for adverse effects on the integrity of any European Sites.</p>
<p><b>Mitigation:</b> None required</p>	

## 7.9 INFRASTRUCTURE (CHAPTER 10 OF RSES)

Chapter 10 of the draft RSES relates to the provision of services and infrastructure in a plan led manner to ensure that there is adequate capacity to support future development. The draft RSES has identified a number of key Regional Strategic Outcomes which are discussed below, in relation to the sustainable management of water and other resources, supporting the transition to a low carbon economy by 2050 and building climate resilience.

Key Policy Area	Assessment
<p><b>RPOs</b> <b>Water Supply</b></p>	<p>A key priority for the Region is to ensure that water supply needs are met by new national projects to enhance the supply. Contingency plans will be considered to address any potential delays in the delivery of projects to ensure the resilience of the water supply for the Region.</p> <p>The current major water supply capacity issue relates to the provision of a new water supply for the Eastern &amp; Midland Region in order to service current and future growth on a regional scale.</p> <p>RPO 10.1 outlines the need for Local Authorities to include proposals in Development Plans to ensure the efficient and sustainable use and development of water resources and water services infrastructure. The delivery of these services and infrastructure are essential for the management and conservation of water resources, particularly in light of economic development. There is potential for any development in relation to water management to impact on water dependent habitats and species (e.g. hydromorphological impacts) within European sites and also for potential adverse impacts via infrastructural development which could result in qualitative changes to water resources. See Section 7.3 for further consideration.</p> <p>RPO 10.2 supports the delivery of the following strategic water services projects: the Water supply project for the Eastern and Midlands Region, the Vartry Water Supply Scheme, Irish Water’s National Programme of Investment to tackle leakage through find and fix and water mains rehabilitation and the Rural Water Programme. These projects have direct pathways for impact on European sites including potential negative changes in key indicators of conservation value (water quality etc.); and potential</p>

	<p>disturbance to key habitats and species.</p> <p>The Water supply project for the Eastern and Midlands Region includes a proposal to transfer water from one catchment to another. The suitability of this solution will be dependent on the project being able to demonstrate no adverse effects on the integrity of any European site. Indirect pathways are also noted as improvements to water availability will encourage population growth with potential to result in habitat or species fragmentation, reduction in habitat area, disturbance to key species.</p> <p>The Vartry project has been the subject of planning and certain elements remain at appeal stage. The project will only be delivered subject to being able to demonstrate no adverse effects on the integrity of any European site. An AA determination will be made by the planning authority in due course.</p> <p>RPOs 10.3 and 10.4 are supporting policies for the provision of the necessary infrastructure to increase capacity in order to service settlements in accordance with the settlement strategy of the RSES and Local Authority Core Strategies, and for reducing leakage in the Region which will minimise demand for capital investment.</p> <p>Population growth will result in increased demand on water supply and therefore there is potential for increased abstractions leading to changes/pressures on existing hydrological/hydrogeological regimes. This could result in adverse impacts on the integrity of water dependent European sites.</p> <p>There is potential for in-combination impacts with Dublin City and Suburb, Regional Growth Centres and Key Growth Settlements, in the form of multiple pressure points on interrelated European Sites.</p>
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**Mitigation:**

Delivery of these services will be *subject to appropriate environmental assessment and the planning process*.

Phasing of services in terms of growth and settlement is essential to avoid adverse impacts on the integrity of the Natura 2000 network.

In order to meet the increased demands on the water supply and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources (e.g. hydromorphological pressures).

Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.

A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.

Key Policy Area	Assessment
<p><b>RPOs</b></p> <p><b>Waste Water Treatment</b></p>	<p>The sustainable growth of the Region requires the provision of infrastructure and services in a plan led manner to ensure there is capacity for future development. High-quality infrastructure provides essential functions and services that support, <i>inter alia</i>, environmental systems.</p> <p>It is recognised that improvements are required in water and waste water</p>

practices within Ireland and steps have been taken through the provision of a single utility provider. 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, and compliance with the Urban Waste Water Treatment Directive.

The EPA Sewage Treatment Maps<sup>15</sup> indicate that there are 29 urban areas within the Region that are on the EPA Priority List because they fall under one or more of the following criteria: Failing to meet EU sewage treatment standards; discharging raw sewage because there is no treatment plant; key pressure on rivers or lakes; impacting on bathing water; improvement needed to protect Pearl Mussels; or improvement needed to protect Shellfish Waters.

It is essential that untreated discharges in the EMR are eliminated and that a strategic approach for the development of the treatment of wastewater in the Region is taken, in order to future-proof treatment capacity for long-term growth. This will include the development of a new rural settlement investment approach, with the inclusion of specific policies for sustainable management of waste water in smaller towns, villages and communities, as well as outside the networks served by Irish Water. This is in line with RPO 10.5 supports both Irish Water and Local Authorities in achieving these goals and increasing compliance with the UWWTD. See Section 7.3 for further consideration.

RPO 10.6 supports the delivery of the following wastewater treatment infrastructure, subject to appropriate environmental assessment and the planning process: The Greater Dublin Drainage, Ringsend WWTP Project, the Athlone Main Drainage Project and the Upper Liffey Valley Sewerage Scheme. These projects and schemes have direct pathways for impact on European sites including potential negative changes in key indicators of conservation value (water quality etc.); potential disturbance to key terrestrial and marine habitats and species; and potential for reduction in habitat area. All listed projects are subject to planning and an AA determination will be made by the planning authority in due course. The suitability of the solutions put forward will be dependent on the project being able to demonstrate no adverse effects on the integrity of any European site.

There is potential for in-combination impacts with Dublin City and Suburb, Regional Growth Centres and Key Growth Settlements, in the form of multiple pressure points on interrelated European Sites.

RPO 10.7 supports strategic wastewater treatment infrastructure in Development Plans in line with the above stated requirements. As such, the potential for adverse impacts discussed for the above projects are applicable to all future projects.

RPO 10.8 is a supporting policy for the extraction of energy and other resources from sewerage sludge. Any transport or infrastructural requirements to achieve this objective may have the potential to impact on European sites.

RPO 10.9 relates to the servicing of rural villages in order to provide an alternative to one-off housing in the countryside. As discussed above, the

<sup>15</sup> <https://gis.epa.ie/EPAMaps/SewageTreatment>



	delivery of wastewater treatment infrastructure provides pathways that have the potential to adversely impact on European Sites.
<p><b>Mitigation:</b></p> <p>Delivery of these services will be <i>subject to appropriate environmental assessment and the planning process</i>.</p> <p>Phasing of services in terms of growth and settlement is essential to avoid adverse impacts on the integrity of the Natura 2000 network.</p> <p>For the management of wastewater, increasing population growth should be planned on a phased basis in collaboration with Irish Water and the Local Authorities to ensure that the assimilative capacity of the receiving environment is not exceeded and that increased wastewater discharges from population growth does not contribute to degradation of water quality.</p> <p>Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.</p> <p>A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.</p>	

Key Policy Area	Assessment
RPOs Surface Water	<p>For the management of surface waters, the incorporation of Sustainable Urban Drainage (SuDS) in all public and private developments in urban areas is recommended, as is the need for diversion of storm water from combined sewers. This management should have a positive impact on water quality, biodiversity and flooding. The management of SuDS includes control structures and strategies designed to efficiently and sustainably drain surface water, while minimising pollution. These practices ultimately manage any potential impacts on surface water bodies.</p> <p>Flood mitigation measures seek to mitigate the potential adverse impacts of climate change; however these measures can have adverse environmental impacts. See Section 7.6 for further consideration.</p> <p>The draft RSES includes a number of guiding principles to be incorporated into Development Plans and LAPs. Notably, these include:</p> <p><i>'Take opportunities to enhance biodiversity and amenity and to ensure the protection of environmentally sensitive sites and habitats, including where flood risk management measures are planned. Plans and projects that have the potential to negatively impact on Natura 2000 sites should be subject to the requirements of the Habitats Directive.'</i></p> <p>and</p> <p><i>'Seek to reduce the extent of hard surfacing and paving as well as requiring the use of sustainable drainage techniques. Where possible, consideration should be given to measures that have benefits for both WFD and flood risk management objectives, such as natural water retention measures, and also for biodiversity and potentially other objectives.'</i></p> <p>These guiding principles ensure that plans and projects will be subject to AA, whilst consideration being given to WFD objectives will also indirectly benefit European sites, as an objective of the WFD dictates that there will be no deterioration in the status of water bodies.</p> <p>RPOs 10.10, 10.11 and 10.12 relate to supporting relevant bodies in the</p>

	<p>improvement of storm water infrastructure to improve sustainable drainage and reduce flood risk, and the implementation of policies and recommendations outlined in the Greater Dublin Strategic Drainage Study (including SuDS). The implementation of such will have a positive impact in terms of water quality and flooding, however there is potential for adverse impacts on European sites as discussed, particularly in relation to flood risk management. This could occur through direct and indirect impact on water dependant SACs/SPAs due to changes in water quality or hydromorphology and loss/disturbance of Annex habitats as a result of infrastructure provision.</p> <p>RPO 10.13 states that Local Authorities shall ensure adequate surface water drainage systems are in place which meet the requirements of the WFD and the associated RBMP, the objectives of which seek to improve the quality of surface and groundwaters and prevent any degradation.</p>
<p><b>Mitigation:</b></p> <p>As stated in the guiding principles of the draft RSES, <i>‘Plans and projects that have the potential to negatively impact on Natura 2000 sites should be subject to the requirements of the Habitats Directive.’</i></p> <p>See mitigation in relation to flood risk management in Section 7.6</p>	

Key Policy Area	Assessment
<p><b>RPOs</b> <b>Energy Infrastructure</b></p>	<p>The RPOs supporting energy infrastructure are grounded in increased use of renewables. This has long term positive impacts for biodiversity in general and European sites, as it contributes to Irelands obligations in terms of reduction of GHG emissions and climate change. However this policy base is likely to require new grid and generation infrastructure e.g. wind farms on and offshore; wave; tidal; overhead lines and underground/ sub-sea cables, all of which have potential for direct and indirect adverse effects on European sites.</p> <p>Key issues include:</p> <ul style="list-style-type: none"> <li>▪ Alteration to water quality from construction activities;</li> <li>▪ Permeant and temporary loss of habitat from construction / operation of new infrastructure;</li> <li>▪ Spread of invasive species;</li> <li>▪ Mortality from collisions;</li> <li>▪ Disturbance from surface and sub-sea noise generation during construction;</li> <li>▪ Reduced fecundity;</li> <li>▪ Reduction in available feeding area / roosting sites as a result of exclusion;</li> <li>▪ Changes to migration paths.</li> </ul> <p>Planning of any energy infrastructure, including upgrades will require careful consideration of all potential impacts at project level. It is acknowledged that RPO 10.15 notes that development of electricity and gas supply and associated infrastructure are subject to subject to <i>appropriate environmental assessment and the planning process.</i></p> <p>RPO 10.17 addresses enforcement and strengthening of the electricity transmission and distribution network within the island and through to</p>

	<p>Europe. Key issues in relation to European sites include: bird strikes; deterioration of water quality from construction including loss of suspended solids with direct and indirect impact on water dependant SAC/ SPA; loss / disturbance of Annex habitats as a result of infrastructure provision; impact on marine mammals from disturbance during construction, loss of feeding and resting areas, alteration to migration paths etc., loss or disturbance of marine habitats. Detailed and robust route and site selection will be required to inform decision making in relation to the projects listed. Chapter 3 of the draft RSES states the following: <i>Feasibility studies will be carried out to support decision making in relation to policy base for this draft RSES and this will include an environmental appraisal which considers the potential effects on the wider environment, including specifically, the Natura 2000 Network. Furthermore, feasibility studies will be supported by robust site / route selection processes which consider a full range of alternative modes and technologies.</i></p> <p>RPO 10.18 also notes that delivery of EirGrid’s Grid IP and TDP and any subsequent plans is supported <i>subject to</i> appropriate environmental assessment and the outcome of the planning process.</p> <p>RPO 10.19 references sustainable development of offshore resources. Bird collisions; disturbance or collision with marine mammals; loss of designated habitats are all risks associated with offshore development. Landfall can also be a significant constraint in this regard. Coastal habitats; coastal bird populations in particular are at risk from landfall activities and from construction activities for offshore development. It is acknowledged that SEA and AA has been completed for the OREDP and the mitigation contained therein shall be implemented to achieve sustainable development of the offshore resource.</p>
<p><b>Mitigation:</b></p> <p>RPO 10.14: the enabling new Smart Grids and Smart Cities Action Plan should be subject to AA to ensure that connections, grid balancing, energy management and micro grid development do not adversely affect site integrity of any European sites.</p> <p>RPO 10.19 should be amended to include the following text in line with the other RPOs in the section: <i>subject to appropriate environmental assessment and the outcome of the planning process</i></p>	

Key Policy Area	Assessment
<p><b>RPO</b> <b>Waste</b> <b>Management</b></p>	<p>RPO 10.20 promotes circular economy and reduction of waste. Adopting a circular economy model to waste management is likely to have direct and indirect positive impacts on biodiversity, and by extension the Natura 2000 network, as waste and its associated potential ecological impacts are reduced.</p>
<p><b>Mitigation:</b></p> <p>Ensure proper site selection of any proposed storage space which includes criteria to avoid likely significant effects on European sites and if necessary avoids adverse effects on site integrity.</p>	

## 7.10 ALL ISLAND COHESION (CHAPTER 11 OF RSES)

Chapter 11 of the draft RSES sets out the RPO in relation to an ‘All Ireland Approach’ which recognises the strong links between our Region and Northern Ireland. It recognises the need to work together for mutual advantage in areas such as economic development and promotion, co-ordination of social and physical infrastructure provision and environmental management.

### All Ireland Approach

**RPO 11.1:** *In co-operation with relevant departments in Northern Ireland, the Eastern and Midlands Regional Assembly will support mutually beneficial policy development and activity in the areas of spatial and infrastructure planning and related spheres.*

#### Assessment:

There is a strong link between our region and Northern Ireland; therefore there is a requirement to work together for mutual advantage in areas such as economic development and promotion, co-ordination of social and physical infrastructure provision and environmental management. In preparing the draft RSES, the Regional Assembly engaged in collaboration with Local Authorities and Government agencies in Northern Ireland.

Implementation of the RSES in tandem with the Regional Development Strategy (RDS) for Northern Ireland will require collaborative work which will be supported by the Framework for Co-operation on Spatial Strategies between Ireland and Northern Ireland.

As Ireland shares a land boundary with Northern Ireland, there is potential for environmental impact on water quality and biodiversity which are transboundary. The protection of shared assets such as European Sites, biodiversity and the water network are a crucial element of the draft RSES. In recognition of this, the potential for adverse transboundary effects on European Sites must be considered in the context of the “source –pathway-receptor” approach.

The **source** relates to the policy measures outlined in the draft RSES which have the potential to adversely impact European Sites e.g. regeneration and development. The **pathways** by which draft RSES policy measures can impact European Sites include changes in land use, habitat loss/fragmentation, emissions to air and via hydrological or hydrogeological connections. The **receptors** in this instance will be the European Sites, potentially including those transboundary sites with Northern Ireland for which there is a pathway of connectivity as a result of the implementation of the draft RSES.

The potential for transboundary impacts to those European Sites that intersect both regions is relatively simple. By comparison, when hydrological and hydrogeological pathways are considered, this increases the number of European Sites that could be affected. Typically a buffer of 15 km is used during Appropriate Assessment however potential contaminants can travel beyond this buffer when conveyed by the water network or mobile species.

Dublin Belfast Corridor has been identified in the draft RSES as a regional growth enabler, and is the largest economic agglomeration on the island of Ireland. Further consideration is given in Chapters 5 and 8. This needs to be supported through targeted investment in transport infrastructure and services in connecting major urban centres and international gateways. The investment and development in this corridor has the potential for adverse impacts on transboundary European Sites.

In addition, there is a strategy to support the co-operation with relevant Departments in Northern Ireland to provide enhanced transport connectivity between Ireland and Northern Ireland, which will include cross-border road and rail, cycling and walking routes, as well as blueways, greenways and peatways. Furthermore there are projects of common interest such as the need for a new Interconnector between electricity grids to enhance energy security and resilience in the future; the development of stable, innovative and secure digital communications and services infrastructure on an all-island basis; and enhanced tourism strategy. These developments could result in the potential

**All Ireland Approach**

for significant adverse effects on European Sites in the absence of adequate co-ordination.

In recognition that national and other administrative boundaries do not reflect the transboundary nature of the environment and its stewardship, the draft RSES seeks to ensure effective management of shared landscapes, heritage, water catchments, habitats, species and transboundary issues in relation to environmental policy in co-operation with relevant Departments in Northern Ireland, with due consideration given to the policy objectives of the RDS. Catchment based strategies which address the hydrological and hydrogeological linkages between jurisdictions will be essential for effective management of transboundary issues. Currently, the WFD already requires that Member States co-ordinate their efforts in relation to international river basin districts. This co-ordinated approach must also account for the management of all transitional and coastal water bodies surrounding the island of Ireland, transboundary rivers, lakes and groundwater bodies.

There is potential for in-combination impacts between Ireland and Northern Ireland, in the form of multiple pressure points on interrelated European Sites.

Cross border co-operation will be required in order to address potential pressures in a coherent manner. There is potential for impact through lack of integration between jurisdictions.

**Mitigation:**

Co-ordination and integration of plans and programmes with the relevant bodies in both jurisdictions to ensure that the potential for adverse effects is addressed in a coherent manner (e.g. catchment based strategies).

Any plans or programmes that stem from all island cohesion will be subject to appropriate environmental assessment.

**7.11 IMPLEMENTATION AND MONITORING (CHAPTER 12 OF RSES)**

Chapter 12 of the draft RSES sets out Regional Policy Objectives to support the implementation and monitoring of the delivery of the EM RSES.

**Assessment and Discussion of Implementation and Monitoring**

The inclusion of implementation and monitoring objectives is broadly positive as it provides opportunities to audit effectiveness of objectives and to monitor unforeseen impacts from across a wide policy base.

Frequency for IM4 would provide additional strength to this commitment. It is recommended that at a minimum, the update of baseline data coincides with the EPA State of the Environment Reporting which is published on a 4-yearly cycle and the NPWS Article 12 and Article 17 reporting in relation to the status and condition of SAC and SPA. This takes place on a 6-yearly cycle with the next reporting period due in 2019.

Two particular baseline data issues which will be required to inform decision making in relation to the RSES relate to bird data and visitor pressure. For both aspects there is often a deficit of information at the project level which can lead to significant delays at planning as data needs to be collected.

The commitment for corrective action in IM5 is positive however the mechanism for how this can be applied is not clear and should be developed in consultation with relevant agencies such as NPWS and EPA.

**Mitigation Measures and Recommendations:**

- A regional working group should be established to improve the coherence of European Site protection and management and to address cross-boundary site and species

**Assessment and Discussion of Implementation and Monitoring**

protection.

- A repository for NIS and NIR documents should be established to facilitate data sharing and exchange on transboundary sites.
- Consideration should be given to requiring planning permissions, particularly for large infrastructure in the region, to provide raw data in a readily searchable format to improve the evidence base available for decision makers at planning authority level.

## 7.12 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 policy and framework within which the Draft RSES is being developed and to identify at this early stage any possible in-combination effects of the Draft RSES with other plans and projects. 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, outlined in **Table 7.2**, 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 7.2 – In-Combination Impacts with Other Plans and Strategies**

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
<p><b>Northern and Western RSES and Southern RSES (In prep)</b></p> <p>Regional strategies are being prepared for the other two regional assembly areas. Similar objectives in terms of delivering on the NPF but with regional rather than national focus.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>These plans are subject to AA. Potential for in-combination effects as activity and development in these areas may have indirect impacts on land use, population growth and scale of development outside their administrative boundary. 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.</p>
<p><b>National Planning Framework (Ireland 2040 Our Plan)</b></p> <p>The National Planning Framework is a long-term strategy for the next 20 years and it will focus on ensuring compatibility between future growth of cities/ towns within Ireland alongside environmental sustainability. It is intended that the National Planning Framework will both provide the focus to guide and inform future planning and set the framework for integrated investment decisions. It is intended that the national policy will be detailed through the Regional Spatial and Economic Strategies in order to set out long term national, regional and local development frameworks from within which sectors will work together to ensure proper planning and sustainable development. Both the National Planning Framework and the Regional Spatial and Economic are being subject to the AA process.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Alteration to air quality;</li> <li>▪ Disturbance.</li> </ul>	<p>Potential for in-combination effects as it sets the policy framework on which RSES is based. However, it is a policy<sup>16</sup> of the National Planning Framework to ensure the resilience of our natural resources and cultural assets. Linkage to wider policies such as for European Sites under the Birds and Habitats Directives and the Water Framework Directive is recognised and the need to set high level planning policies in protecting and making responsible use of our natural environment. The plan has been subject to AA.</p>
<p><b>National Development Plan 2018-2027</b></p> <p>The National Development Plan sets out the investment priorities that will underpin the implementation of the National Planning Framework (NPF). This will guide national, regional and local</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to water quality and/or water</li> </ul>	<p>The NDP is a high level budgetary and finance document which identifies priorities for capital investment. Given the nature of the capital investment the majority of the projects referenced and funded under the NDP have been or will be subject to EIA/AA. The NDP does not confer planning, it identifies strategic need.</p>

<sup>16</sup> [http://www.housing.gov.ie/sites/default/files/publications/files/towards\\_a\\_national\\_planning\\_framework\\_december\\_2015.pdf](http://www.housing.gov.ie/sites/default/files/publications/files/towards_a_national_planning_framework_december_2015.pdf), Appendix II – Page 2



Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
<p>planning and investment decisions in Ireland over the next two decades, to cater for an expected population increase of over 1 million people.</p>	<p>movement; and</p> <ul style="list-style-type: none"> <li>▪ Introduction or spread of invasive species</li> </ul>	
<p><b>Water Services Strategic Plan</b></p> <p>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 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</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>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.</p>
<p><b>Catchment Flood Risk Assessment and Management (CFRAM) Programme, under the Floods Directive</b></p> <p>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</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Disturbance;</li> </ul>	<p>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</p>

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
<p>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 Flood Risk Management Plans have been prepared. These plans have been subject AA.</p>	<ul style="list-style-type: none"> <li>▪ In-combination impacts within the same scheme</li> </ul>	<p>favourable conservation status of water bodies. The establishment where flooding is occurring is an important consideration for the RSES 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.</p>
<p><b>Culture 2025</b> 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.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Disturbance of species; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>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.</p>
<p><b>Healthy Ireland – a Framework for Improved Health and Wellbeing 2015-2025</b> 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.</p>	<ul style="list-style-type: none"> <li>▪ Species disturbance.</li> </ul>	<p>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 RSES 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.</p>
<p><b>Towards Nearly Zero Energy Buildings in Ireland – Planning for 2020 and Beyond</b></p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> </ul>	<p>This framework includes a number of aims which are linked to the aims under the RSES related to climate change and the transition to a low-carbon economy. Potential in-combination impacts relate</p>

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
<p>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.</p>	<ul style="list-style-type: none"> <li>▪ Species mortality;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to air quality;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>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.</p>
<p><b>Climate Action Plan 2019</b></p> <p>The plan focusses on energy, transport, waste, agriculture and buildings. The plan includes new governance structures necessary to implement changes and sets out specific targets for each sector.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Species mortality;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to air quality;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Introduction or spread of invasive species</li> </ul>	<p>Potential for in-combination effects as it sets out actions which directly relate to RSES through land use planning energy and transportation in particular. Many of the consolidation policies already identified through the NPF and further elaborated in the RSES are aligned with the actions promoted through the CAP. The main thrust of the plan is positive and would not be expected to conflict with any aspects of the RSES but to positively influence it going forward.</p>
<p><b>National Climate and Energy Plan (in prep)</b></p> <p>The plan brings together energy and climate planning and describes how Ireland will achieve the EUs main climate targets. The plan must cover the key areas of (i) energy security; (ii) internal energy market; (iii) energy efficiency; (iv) decarbonisation; and (v) research, innovation and competitiveness.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Alterations to water quality and/ or water movement;</li> <li>▪ Disturbance;</li> <li>▪ In-combination impacts within the same scheme</li> </ul>	<p>The first draft of the plan has been subject to public consultation and will continue to evolve over the short term. Supporting decarbonisation and as such the main thrust of the plan is positive as it addresses climate change aspects however renewable energies such as wind energy have potential for adverse effects on European sites and protected species. In the short to medium term, the move toward electrification of transport and heat will still rely on non-renewable sources of electricity generation.</p> <p>The Plan will be subject to SEA and AA screening.</p>
<p><b>The Energy Performance of Buildings Directive (2002/91/EC recast by Directive 2010/31/EU)</b></p> <p>Contains a range of provisions to improve the energy 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</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Species mortality;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to air quality;</li> <li>▪ Alterations to water quality and/or water</li> </ul>	<p>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.</p>

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
2018).	movement; and <ul style="list-style-type: none"> <li>▪ Introduction or spread of invasive species.</li> </ul>	
<p><b>National Energy Efficiency Action Plan (NEEAP)</b></p> <p>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.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Species mortality;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to air quality;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>This plan would not be expected to conflict with any aspects of the RSES but to positively contribute to it going forward subject to AA of the 4<sup>th</sup> review.</p>
<p><b>National Climate Change Adaptation Framework 2012</b></p> <p>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. There is a requirement for each government department to prepare sectoral plans. With the establishment of the Climate Action and Low Carbon Development Act 2015 there is now a statutory basis on which National Climate Change Adaptation Frameworks and Sectoral Adaptation Plans are to be established. It is expected that the National Climate Change Adaptation Framework will be finalised later in 2017 followed by the development of sectoral adaptation plans. The policies and measures developed by the Adaptation Framework are likely to focus on infrastructural measures which have the potential to impact on hydromorphology which has specific relevance for the RSES and Natura Directives. In addition, a climate Mitigation Plan is also being prepared by the DCCAIE and this too will contain</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Alterations to water quality and/ or water movement;</li> <li>▪ Disturbance;</li> <li>▪ In-combination impacts within the same scheme</li> </ul>	<p>Ireland will have to adhere to the goals and targets set by the EU in relation to climate and energy and the National Policy Position on climate action sets a fundamental national objective to achieve the transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050. The policy states that greenhouse gas mitigation and adaptation to the impacts of climate change are to be addressed in parallel national strategies, through a series of National Mitigation Plans and a series of National Climate Change Adaptation Frameworks respectively.</p> <p>Alongside the focus towards reducing greenhouse gas emissions Ireland also needs to increase its share of renewable energy. Renewable energy sources include a range of possibilities, although to date much of the focus has been on wind energy and the focus is often in remote and upland areas including peatlands and forestry. In both cases, environmental sensitivities which relate to water dependant habitats and species can be a significant issue at project level and this must be part of broader considerations on the inter-dependency of national policy positions, especially where defined targets have been set. As part of policies and frameworks being developed going forward, consideration should be given to these sensitive areas and guidance developed in terms of future development.</p>

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
<p>specific measures to mitigate against climate change. The focus in this plan is the transport, energy, built environment and agriculture sectors.</p>		
<p><b>European Framework Policy's Seventh Action Programme and Roadmap to a Resource Efficient Europe</b></p> <p>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 <i>"to decouple economic growth from resource use and its environmental impacts, and proposed a long-term vision, 2020 milestones and a number of short-term actions to start the transition"</i>.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Alterations to air quality;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Disturbance to habitats/ species.</li> </ul>	<p>The RSES shares common goals with these European lead programmes; a reduction in climate change impacts and increasing energy efficiency. Therefore, they are complimentary to the RSES and as such no significant in-combination effects are envisaged.</p>
<p><b>Energy 2020 – A strategy for competitive, sustainable and secure energy</b></p> <p>Sets out three key requirements of energy supply; security, competitiveness and sustainability. Also sets out the following targets;</p> <ul style="list-style-type: none"> <li>▪ Increase the share of renewable energy in the EU's energy mix to at least 20% of consumption; and</li> <li>▪ Improve energy efficiency by at least 20%.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Alterations to air quality;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Disturbance to habitats/ species.</li> </ul>	<p>The RSES shares common goals with Energy 2020; including 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.</p>
<p><b>The Renewable Energy Directive (2009/28/EC)</b></p> <p>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).</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Species mortality;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to air quality;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>The RSES 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 RSES but to positively influence it going forward.</p>

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
<p><b>The EU Policy Framework for Climate and Energy in the period from 2020 to 2030</b></p> <p>Sets targets for the period 2020 to 2030:</p> <ul style="list-style-type: none"> <li>▪ Target of 27% renewable energy in the EU;</li> <li>▪ Increase energy efficiency by 27% by 2020; and</li> <li>▪ Reaching electricity interconnection target of 15% between EU countries by 2030.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Species mortality;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to air quality;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>This policy framework underwent impact assessment before publishing. This framework includes a number of aims which are linked to the RSES. 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.</p>
<p><b>Energy Roadmap 2050</b></p> <p>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 levels by 2050.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Species mortality;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to air quality;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>The key aim of the Roadmap is a guide to a low carbon Europe. This plan will be complimentary to the RSES and as such no significant in-combination impacts are envisaged.</p>
<p><b>The National Renewable Electricity Policy and Development Framework</b> (in prep)</p> <p>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.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Species mortality;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Alterations to air quality; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>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.</p>
<p><b>The National Renewable Energy Action Plan (NREAP)</b></p> <p>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</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Species mortality;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to water quality and/or water</li> </ul>	<p>This plan was not subject to AA, but some actions arising out of it have since been subject to AA owing to judicial review.</p> <p>The plan is positive in that its aims are to accelerate the uptake on renewable energy, thereby reducing the dependence on fossil fuels. The RSES will contribute to reaching the targets set in the</p>

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
<i>and heating and cooling in 2020”.</i>	movement; <ul style="list-style-type: none"> <li>▪ Alterations to air quality; and</li> <li>▪ Introduction or spread of invasive</li> </ul>	NREAP and as such the plans are complementary.
<p><b>Offshore Renewable Energy Development Plan (OREDPA)</b></p> <p>The OREDPA 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 OREDPA sets out key principles, policy actions and enablers for delivery of Ireland’s significant potential in this area. In this way, the OREDPA provides a framework for the sustainable development of Ireland’s offshore renewable energy resources.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Species mortality;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>This plan was subject to AA. No significant in-combination impacts are envisaged at plan level. Projects arising from the OREDPA, and successors to the OREDPA, will be required to undergo AA Screening which will ensure no in-combination effects further down the planning hierarchy.</p>
<p><b>Harnessing our Ocean Wealth - an Integrated Marine Plan for Ireland 2012</b></p> <p>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</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Hydromorphological impacts through infrastructure expansion;</li> <li>▪ Alterations to water quality</li> <li>▪ Disturbance to habitats and/or species; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>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 RSES 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.</p>

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
economy to exceed €6.4bn by 2020.		
<p><b>White Paper 'Ireland's Transition to a Low Carbon Energy Future (2015 – 2030)</b></p> <p><i>"A complete energy policy update, which sets out a framework to guide policy between now and 2030".</i></p> <p>This instrument ensures supplies of energy to the public and private sector remain secure, affordable and competitive.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Alterations to water quality;</li> <li>▪ Alterations to air quality;</li> <li>▪ Disturbance to habitats and/or species; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>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. The RSES is also seeking to address GHG emissions at the regional level. No likely significant in-combination effects are envisaged.</p>
<p><b>Grid25 Implementation Programme 2011-2016 and Ireland's Grid Development Strategy, Your Grid Your Tomorrow</b></p> <p>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.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance.</li> </ul>	<p>There is potential for in-combination effects with the RSES in terms of infrastructure requirements resulting in habitat loss, fragmentation and degradation and the associated ecological impacts. These plans are subject to AA therefore no significant in-combination impacts are envisaged at plan level.</p>
<p><b>National Policy Framework on Alternative Fuels Infrastructure in Transport 2017-2030</b></p> <p>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.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Species mortality;</li> <li>▪ Alterations to air quality;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>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 RSES but to positively contribute to it going forward.</p>
<p><b>The Bioenergy Plan (draft)</b></p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> </ul>	<p>This plan is currently undergoing its own AA but it is not yet</p>



Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
<p>Aims to develop cost-effective harnessing of sustainable, indigenous, renewable energy resources. Also aims to reduce harmful emissions from traditional fuels.</p> <p>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. Note this is now to be subsumed into National Energy and Climate Plan.</p>	<ul style="list-style-type: none"> <li>▪ Habitat degradation or fragmentation;</li> <li>▪ Species mortality;</li> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Alteration to air quality; and</li> <li>▪ Disturbance to habitats and/or species;</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>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 RSES but to positively influence/inform it going forward.</p>
<p><b>National Peatlands Strategy (NPS) and Raised Bog SAC Management Plans</b></p> <p>Establishes principles in relation to Irish peatlands in order to guide Government policy. Aims to provide a 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.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Alteration to air quality;</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>The Raised Bog SAC Management Plan was subject to its own AA. The RSES will ensure protection of peatlands in terms of land use utilisation. This plan would not be expected to conflict with any aspects of the RSES but to positively interact with it and outline a series of considerations in relation to peatlands. Therefore there are no likely significant in-combination effects foreseen.</p>
<p><b>Food Wise 2025</b></p> <p>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.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Land use change or intensification</li> <li>▪ Water pollution</li> <li>▪ Nitrogen deposition</li> <li>▪ Disturbance to habitats/ species</li> </ul>	<p>Growth is to be achieved through sustainable intensification to maximise production efficiency whilst minimising the effects on the environment however there is increased risk of nutrient discharge to receiving waters and in turn a potential risk to biodiversity and Europe Sites if not controlled. With the required mitigation in the Food Wise Plan, no significant in-combination impacts are predicted. Mitigation measures included cross compliance with 13 Statutory Management Requirements, EIA Agricultural Regulations 2011, GLAS, and Screening for AA of licencing and permitting in the forestry and seafood sectors.</p>
<p><b>The Common Agricultural Policy (CAP)</b></p> <p>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</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Species mortality;</li> </ul>	<p>Spatial planning under the RSES 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</p>

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
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.	<ul style="list-style-type: none"> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Alterations to air quality; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	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 in-combination impacts as the rural economy is promoted under the RSES.
<p><b>Action Plan for Rural Development</b></p> <p>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.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Species mortality;</li> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Alterations to air quality; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	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 RSES and other agricultural plan and policies. AA screening of the Action Plan is required to offset the potential for in-combination effects.
<p><b>Rural Development Programme 2014-2020</b></p> <p>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</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Species mortality;</li> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Alterations to air quality; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	The RDP for 2014 – 2020 has been subject to SEA <sup>17</sup> , and AA <sup>18</sup> . The AA assessed the potential for impacts from the RDP measures e.g. for the GLAS scheme to result in inappropriate management prescriptions; minimum stocking rates under the Areas of Natural Constraints measure leading to overgrazing in sensitive habitats with dependent species, and TAMS supporting intensification. Mitigation included project specific AA for individual building, tourism or agricultural reclamation projects, consultations with key stakeholders during detailed measure development, and site-based monitoring of the effects of RDP measures. With such measures in place, it was concluded that there would be no significant in-combination impacts on European sites.
<p><b>Forestry Programme 2014-2020</b></p> <p>Provides Ireland's proposals for 100% state aid</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> </ul>	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

<sup>17</sup><https://www.agriculture.gov.ie/media/migration/ruralenvironment/ruraldevelopment/ruraldevelopmentprogramme2014-2020/StrategEnvironmAssessSumState090615.pdf>

<sup>18</sup><https://www.agriculture.gov.ie/media/migration/agarchive/ruralenvironment/preparatoryworkfortherdp2014-2020/RDP20142020DraftAppropriateAssessmentReport160514.pdf>

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
<p>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”.</p> <p>The Programme identifies the needs of the Forestry sector as:</p> <ul style="list-style-type: none"> <li>▪ Increase forest cover</li> <li>▪ Increase the production of forest biomass to meet renewable energy targets</li> <li>▪ Support forest holders to actively manage their plantations</li> </ul>	<ul style="list-style-type: none"> <li>▪ Disturbance to habitats/species;</li> <li>▪ Species mortality;</li> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Alterations to air quality; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>the Forestry Programme, alongside the mitigation in the RSES, no significant in-combination impacts are predicted.</p>
<p><b>Nitrates Directive (91/676/EEC) and Nitrates Action Programme (currently being updated)</b></p> <p>This Directive has the objective of reducing water pollution caused or induced by nitrates from agricultural sources and preventing further pollution. The NAP is Ireland’s response to implementing the directive.</p>	<ul style="list-style-type: none"> <li>▪ Habitat degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Nutrient enrichment; and</li> <li>▪ Alteration to air quality.</li> </ul>	<p>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.</p>
<p><b>The EU Sustainable Development Strategy (EU SDS) and Our Sustainable Future: A Framework for Sustainable Development in Ireland (2012)</b> (national)</p> <p>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, <b>Our Sustainable Future: A Framework for Sustainable Development in Ireland (2012)</b> has followed the model used in the EU SDS.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Species mortality;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>There is potential for in-combination effects with the RSES 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 RSES but to positively influence it going forward.</p>
<p><b>National Mitigation Plan 2017</b></p> <p>Plan outlining the measures and actions of four</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> </ul>	<p>The NMP was subject to its own SEA and AA. The framework supports climate change mitigation. No risk of likely significant in-</p>

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
specific sectors to mitigate climate change in the areas of transport, energy, the built environment and agriculture.	<ul style="list-style-type: none"> <li>▪ Alterations to water quality and/or water movement;</li> <li>▪ Disturbance; and</li> <li>▪ In-combination impacts within the same scheme.</li> </ul>	combination effects.
<p><b>Smarter Travel ‘A New Transport Policy for Ireland’ 2009-2020</b></p> <p>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.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Species mortality;</li> <li>▪ Alterations to air quality;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	There is potential for in-combination effects with the RSES 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 RSES going forward.
<p><b>Water Framework Directive (2000/60/EC)</b></p> <p>The primary purpose of this Directive and the various pieces of national legislation that have enacted through the implementation of River Basin Management Plans, is to achieve good status for all water bodies, with no deterioration in water body status.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	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 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.
<p><b>Marine Strategy Framework Directive (2008/56/EC)</b></p> <p>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</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>The MSFD Programme of Measures<sup>19</sup> 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.</p> <p>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</p>

<sup>19</sup> [http://www.housing.gov.ie/sites/default/files/public-consultation/files/outcome/msfd\\_poms\\_summary\\_report.pdf](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
<p>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.</p> <p>The Marine Spatial Planning Directive obliges all coastal Member States to establish maritime spatial plans as soon as possible and at the latest by 31<sup>st</sup> 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.</p>		<p>planning.</p>
<p><b>EU Groundwater Directive (2006/118/EC)</b></p> <p>This Directive establishes a regime, which sets groundwater quality standards and introduces measures to prevent or limit inputs of pollutants into groundwater.</p>	<ul style="list-style-type: none"> <li>▪ Habitat degradation;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>No risk of likely significant in-combination effects will result as the primary purpose of the Directive is to improve environmental quality.</p>
<p><b>The Integrated Pollution Prevention Control Directive (96/61/EC)</b></p> <p>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.</p>	<ul style="list-style-type: none"> <li>▪ Habitat degradation;</li> <li>▪ Alterations to air quality;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	<p>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.</p>
<p><b>European Union Biodiversity Strategy to 2020</b></p> <p>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.</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Alterations to air quality;</li> <li>▪ Disturbance to habitats/species;</li> </ul>	<p>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</p>

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
	<ul style="list-style-type: none"> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	implementation of the RSES to assist in achieving the objectives of the Strategy through consideration and integration of environmental issues throughout the spatial planning hierarchy.
<p><b>Prioritised Action Framework for Natura 2000 (2014-2020)</b></p> <p>This plan identifies the range of actions needed to help improve the status of Ireland's habitats and wildlife.</p>	<ul style="list-style-type: none"> <li>▪ Alterations to air quality;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Introduction or spread of invasive species.</li> </ul>	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.
<p><b>Biodiversity Action Plan 2017-2021</b></p> <p>Ireland's third iteration of the Biodiversity Action Plan (BAP), for conserving and restoring Ireland's biodiversity covering the period 2017 to 2021.</p> <p>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.</p>	<ul style="list-style-type: none"> <li>▪ Improved habitat and species protection</li> </ul>	As the BAP is aimed at environmental protection, there are no in-combination effects.
<p><b>Dublin Port Masterplan and Review</b></p> <p>Plan is proposed to guide the development of Dublin Port for the period from 2012 to 2040 with the Dublin Port Masterplan. The Masterplan 2040 is intended to update and refine the infrastructure development options for Dublin Port and, in doing this, to ensure that the Dublin Port Masterplan continues to provide the best solution for the future sustainable development of Dublin Port through to 2040</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Alterations to air quality;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to water quality and/or water movement; and</li> <li>▪ Introduction or spread of invasive species</li> </ul>	Dublin port masterplan identifies expansion and growth which is supported by RSES. Other proposals in RSES for infill and brownfield may also increase pressure in the Dublin port area. The masterplan has been subject to AA. Includes identification of key limitations for bird populations in adjacent SPA. This is recorded in the AA for the RSES.
<p><b>National Transport Strategy</b></p> <p>The NTA's Transport Strategy for the Greater Dublin Area (GDA) provides a framework for the planning and delivery of transport infrastructure and services</p>	<ul style="list-style-type: none"> <li>▪ Habitat loss or destruction;</li> <li>▪ Habitat fragmentation or degradation;</li> <li>▪ Alterations to air quality;</li> <li>▪ Disturbance to habitats/species;</li> <li>▪ Alterations to water quality and/or water</li> </ul>	This Transport Strategy has informed the RSES. The RSES is required by legislation to be consistent with the National Transport Authority's Transportation Strategy for the Greater Dublin Area. The strategy has undergone AA.

Plan/ Programme/ Policy	Key Types of Impacts	Potential for In-combination Effects and Mitigation
over the period 2016 - 2035.	movement; and ▪ Introduction or spread of invasive species	

## 7.13 CHANGES MADE TO DRAFT RSES BY COUNCILLOR MOTION

Following the main assessment of the draft RSES [see above] a number of councillor Motions were made prior to publication. These were assessed as part of this NIR.

Chapter	Changes Made
<b>Chapter 2: Strategic Vision</b>	<p>Discussion text added on key challenges facing the region, namely the transition to a low carbon society:</p> <p><i>Insert on page 17: A key challenge facing the Region, along with all other regions, is the transition to a low carbon society. For the RSES this means five primary areas of transition which are at the core of the Strategy:</i></p> <ul style="list-style-type: none"> <li>▪ <i>spatial development patterns which reduce transport demand and encourage low</i></li> <li>▪ <i>carbon transport modes;</i></li> <li>▪ <i>sustainable transport systems (people and freight);</i></li> <li>▪ <i>carbon storing and sequestering land uses;</i></li> <li>▪ <i>energy efficient buildings and industry; and</i></li> <li>▪ <i>renewable energy.</i></li> </ul>
<b>Assessment</b>	<i>No changes to the assessment.</i>
<b>Proposed Mitigation</b>	<i>None proposed.</i>

Chapter	Changes Made
<b>Chapter 4: People and Place</b>	<p>Discussion text added on taking account of existing plans, headroom discussion taking account of the NPF Roadmap, and measuring delivery through active land management.</p> <p>Under the preceding discussion text for RPO 4.47 and 4.48 for Portlaoise, text has been inserted relating to the need for job creation in zoned land.</p>
<b>Assessment</b>	No changes to the assessment
<b>Proposed Mitigation</b>	None proposed

Chapter	Changes Made
<b>Chapter 5: Dublin Metropolitan Area Strategic Plan (MASP)</b>	Table 5.1 and Table 5.2 have had minor text deletions/ sentence reordering in terms of greenfield/ brownfield named sites, and the timing of LUAS extension (medium to long term). Reference to other industry in the MASP area has been added.
<b>Assessment</b>	<i>No changes to the assessment.</i>
<b>Proposed Mitigation</b>	<i>None proposed.</i>



Chapter	Changes Made
<p><b>Chapter 7: Environment</b></p>	<p>The discussion under Section 7.4, <i>Flood Risk Management Plans (FRMPs)</i>, now includes a reference to Appendix H to the RSES which lists the flood relief schemes in the region.</p> <p>Under the discussion for Section 7.6, <i>Development of Greenways, Blueways and Peatways</i>, the list of named greenways has been added to with a reference to the Blessington Greenway, and the reference to the Barrow Way clarified by the naming of a specific stretch of the way, from Lowtown to Graiguecullen/Carlow.</p> <p>Under Section 7.8, <i>Climate Change</i>, a discussion paragraph has been added which outlines the need for the region to assess transport demand and understand its regional greenhouse gas emissions, through informing decision-making in the core strategies of development plans. An additional guiding principle for Integration of Land Use and Transport has been added to outline that: <i>“The predicted impact of the potential land use and transport infrastructure on modal split and transport greenhouse gas emissions should be assessed to deliver on national and regional targets.”</i></p>
<p><b>Assessment</b></p>	<p>The schemes listed in Appendix H have been identified under the relevant CFRAMs which has been subject to AA. In due course, as schemes are rolled out at project level further assessment will be applied to inform the design solution.</p> <p>The impacts associated with greenways and blueways have been assessed under Chapter 7 Environment and Chapter 8 Connectivity. A greenway in the vicinity of Blessington will need to consider connectivity with surrounding sites including Red Bog SAC and particularly Poulaphouca Reservoir SPA. Increased visitor pressure in this location may give rise to adverse effects on site integrity. As such, proper site selection will be essential to avoid adverse effects.</p> <p>The additional text under Section 7.8 is supportive of progressing a method of greenhouse gas emissions assessment and in consultation with key stakeholders. The inclusion of this is welcome and positive overall as climate change is a significant threat to the Natura network.</p>
<p><b>Proposed Mitigation</b></p>	<p><i>Robust feasibility and route selection will be required for all greenways to avoid adverse effects. These preliminary studies will need to consider do nothing as well as do something options.</i></p>

Chapter	Changes Made
<p><b>Chapter 8: Connectivity</b></p>	<p><b>Policy Changes</b></p> <p>The first two points of RPO 8.6 has been updated with minor word revisions:</p> <p><b>RPO 8.6:</b> The RSES supports delivery of the rail projects set out in Table 8.2, subject to the outcome of appropriate environmental assessment and the planning process;</p> <p>Delivery of DART Expansion Programme - delivery of priority elements including investment in new train fleet, new infrastructure and electrification of existing lines. Provide fast, high-frequency electrified services to Drogheda on the Northern Line, Celbridge/Hazelhatch on the Kildare Line, Maynooth and M3 Parkway on the Maynooth/Sligo Line, while continuing to provide improve DART services on the South-Eastern Line as far south as Greystones.</p> <p>Provide for an appropriate level of commuter rail service in the Midlands and <a href="#">South-East</a>.</p> <p><b>RPO 8.8:</b> The RSES supports appraisal and or delivery of the road projects set out in Table 8.4 subject to the outcome of appropriate environmental assessment and the planning process.</p> <p>A number of significant regional road schemes will also be supported, including those listed below, and local relief roads will be brought forward as a means of reallocating existing road space in urban areas to public transport, walking and cycling in accordance</p>

Chapter	Changes Made
	<p>with guiding principles of this draft Strategy, subject to the outcome of appropriate environmental assessment and the planning process.</p> <p>Significant Regional Road Schemes:</p> <ul style="list-style-type: none"> <li>• Adamstown and Nangor Road Improvements;</li> <li>• Portlaoise Southern Distributor Road;</li> <li>• Laytown to Bettystown Link Road;</li> <li>• Athy Southern Distributor Road;</li> <li>• Portlaoise Southern Distributor Road.</li> <li>• N80 Improvements <a href="#">including inter regional and intra-regional accessibility</a>.</li> <li>• <a href="#">N81 Tallaght to Hollywood scheme including linkage roads from Baltinglass and Dunlavin to N9 from N81</a>.</li> </ul> <p><b>RPO 8.14:</b> Support the improvement and protection of the TEN-T network to strengthen access routes to Ireland’s ports, including investment in the ongoing development of the <a href="#">N11/M11</a> to improve connectivity to Rosslare <a href="#">and improvements to the Dublin-Wexford Rail line</a>.</p>
<b>Assessment</b>	<p><b>RPO 8.6:</b> Minor text changes; no changes to assessment.</p> <p><b>RPO 8.8:</b> The improvements to the N80 has now been added to referencing inter- and intra-regional connectivity. A new regional road scheme, N81 Tallaght to Hollywood, has been added to the list of regional schemes. The impacts of road schemes in general has been assessed previously, and it is noted that the policy stipulates “subject to the outcome of appropriate environmental assessment and the planning process”, which is appropriate at the regional level, recognising that site selection and assessments will be required at the project level.</p> <p><b>RPO 8.14:</b> Minor text changes, clarifying the N11/M11, and now including reference to improvements to the southern commuter/intercity railway lines. The impacts of rail improvements have been assessed previously and no change to the assessment.</p>
<b>Proposed Mitigation</b>	<i>None proposed.</i>

Chapter	Changes Made
<b>Chapter 9: Quality of Life</b>	Under Section 9.8, <i>Healthy Communities</i> , the discussion text for RPO now includes a reference to including the recommendations of the Trauma Steering Group – A Trauma System for Ireland in reference to meeting growing healthcare needs.
<b>Assessment</b>	<i>No changes to assessment.</i>
<b>Proposed Mitigation</b>	<i>None proposed.</i>

## 8 MATERIAL AMENDMENTS TO THE DRAFT RSES

### 8.1 PROPOSED MATERIAL AMENDMENTS TO DRAFT RSES

The draft EM RSES went on public display in Q4 of 2018. Following the end of the consultation period in Q1 2019, the EMRA reviewed all of the submissions received. This is recorded in the Directors Report on Submissions to the Draft RSES which can be viewed on at <https://emra.ie/draft-rese-submissions/>.

On foot of this review of submissions, a series of proposed *Material Amendments* to the draft plan were identified. To inform the proposed Material Amendment stage of the RSES, the amendments were screened for likely significant effects and where necessary assessed for adverse impacts on the integrity of European sites in accordance with Section 24 of the Planning and Development Act 2000 (as amended).

The reporting in relation to the assessment is included in **Appendix I** to this NIR. In summary, the majority of proposed material amendments were considered to have no additional likely significant effects (either positive or negative) from that already identified in the draft RSES [**Chapter 7** of this NIR] having regard to the suite of relevant RPOs included in the draft RSES

In a limited number of cases, additional assessment was considered necessary. Specifically this included new RPOs which had not previously been considered and significant amendments with potential for further environmental impacts. In one example, the proposed amendment which included a new RPO to: *Support development of underused lands along the River Barrow* was recommended for removal in light of the environmental sensitivities already identified in the area. This assessment was put on public display alongside the proposed Material Amendments. These documents were put on display from 15<sup>th</sup> March 2019 - 12<sup>th</sup> April 2019.

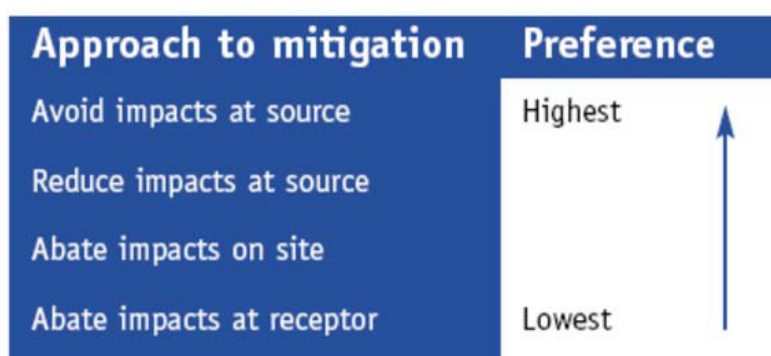
### 8.2 MINOR MODIFICATIONS TO MATERIAL AMENDMENTS

Following the end of the second consultation period in April 2019, EMRA reviewed all of the submissions received. This is recorded in the Directors Report on Proposed Material Amendments to the EMRA Draft RSES 2019-2301 which can be viewed at <https://emra.ie/material-amendments-directors-report/>.

In many instances, the amendments previously assessed were confirmed following consultation and, in several cases, minor non-material amendments were proposed to address issues of consistency and other minor matters. The NIR has assessed these changes for likely significant effects and this is also recorded in **Appendix I**. In summary, none of the proposed minor modifications were considered to have potential for likely significant effects.

## 9 MITIGATION MEASURES / RECOMMENDATIONS

The section sets out the strategic approach to mitigation to address potential adverse effects on the integrity of Natura 2000 sites within the EMR. Mitigation measures are aimed at minimising or cancelling the potential adverse effects of a plan or project on a European site, during or after completion, and form an integral part of the specifications of the project (EC, 2000). In addition, they must ensure the continuity of biological processes and protect the overall coherence of the Natura 2000 network (EC, 2011). Mitigation is defined in the Commission services guidance document 'Managing Natura 2000 sites: The provisions of Article 6 of the "Habitats" Directive 92/43/EEC' as 'measures aimed at minimising or even cancelling the negative impact of a plan or project, during or after its completion' (paragraph 4.5.2). The research for this guidance document suggests that mitigation measures should be considered in accordance with a hierarchy of preferred options as illustrated in **Figure 9-1** below. The overall objective is to avoid sensitivities.



**Figure 9-1 – Hierarchy of Preferred Mitigation Options**

### 9.1 OVERALL MITIGATION STRATEGY

It is noted that actions arising out of the RSES shall be required to conform to the relevant regulatory provisions aimed at preventing pollution or other environmental effects likely to adversely affect the integrity of European Sites, where applicable and appropriate. In addition, all lower level plans and projects arising from the implementation of the RSES will themselves be subject to screening for AA and where relevant, AA.

The mitigation proposed is aligned with, and has been drawn up in parallel with, the allied SEA Environmental Report. The overall strategy responds to the level of detail available at the RSES level and the role for other inter-related plans and programmes which have defined competent authorities which interact with the RA. The overarching mitigation strategy is therefore that potential Likely Significant Effects (LSE) or Adverse Effects on Site Integrity (AESI) will be considered fully at project level during pre-planning design and AA, when the specific effects of a development option can be reduced or eliminated through targeted project-specific surveys and iterative design, in order to limit the potential for LSEs or AESI.

Targeted and 'appropriate' evaluation and analysis will be undertaken at initially CDP level and ultimately at project stage, supported where necessary with site-specific or project-specific surveys or studies. Project-level screening for appropriate assessment and if applicable, Natura Impact Statements, shall be prepared for all projects falling out of the RSES as required by Chapter 3 of the draft RSES.

### 9.1.1 Protective Measures Incorporated into the RSES through Iterative Discussion

A number of policy objectives and guiding principles have been included in the proposed final RSES, alongside commitments by EMRA with respect to the proposed mitigation/ recommendations below.

#### Regional Strategic Objectives (RSO's)

In the first instance, the overarching Regional Strategic Objective **RSO 11** commits to: promoting co-ordinated spatial planning to conserve and enhance the biodiversity of protected habitats and species including landscape and heritage protection. This is supported by relevant **RSO 1** relating to sustainable growth, **RSO 4** relating to clean air and water for healthy communities, **RSO 7** addressing sustainable management of environmental resources, **RSO's 8 and 9** addressing our transition to a low carbon and climate resilient society, **RSO 10** promoting green infrastructure and **RSO 16** promoting collaboration and partnership.

#### Regional Policy Objectives (RPO's)

Further to the RSO's there are also a number of Regional Policy Objectives (RPO's) which give further support to these RSO's, specifically:

**RPO 3.4:** Ensure that all plans, projects and activities requiring consent arising from the Regional Spatial and Economic Strategy are subject to the relevant environmental assessment requirements including SEA, EIA and AA as appropriate. In addition, the future strategic development of settlements throughout the Region will have full cognisance of the legal requirements pertaining to sites of International Nature Conservation Interest.

**RPO 3.5:** Identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.

**RPO 3.6:** City and county development plans shall undergo assessment of their impact on carbon reduction targets and shall include measures to monitor and review progress towards carbon reduction targets.

**RPO 3.7:** Local Authorities shall have regard to environmental and sustainability considerations for meeting sustainable development targets and climate action commitments, in accordance with the National Adaptation Framework. In order to recognise the potential for impacts on the environment, Local Authorities shall address the proper site/route selection of any new development and examine environmental constraints including but not limited to biodiversity, flooding, landscape, cultural heritage, material assets, including the capacity of services to serve any new development.

**RPO 4.2:** Infrastructure investment and priorities shall be aligned with the spatial planning strategy of the RSES. All residential and employment developments should be planned on a phased basis in collaboration with infrastructure providers so as to ensure adequate capacity for services (e.g. water supply, wastewater, transport, broadband) is available to match projected demand for services and that the assimilative capacity of the receiving environment is not exceeded.

**RPO 4.56** Support enhancement and expansion of Wicklow port and harbour, to expand commercial berthing and pleasure craft capacity subject to a feasibility study with particular focus on avoiding adverse impacts on the integrity of adjacent European Sites.

**RPO 6.17:** Support the maintenance of, and enhanced access to state and semi-state lands such as National Parks, Forest Parks, Waterways, etc., together with Monuments and Historic Properties, for recreation and tourism purposes. Access should be planned and managed in a sustainable manner that protects environmental sensitivities, ecological corridors, and the ability of local infrastructure to support increased tourism.

**RPO 6.18:** Support the preparation and implementation of Local Authority Tourism Strategies and Diaspora Strategies. All tourism strategies and plans should include clear monitoring protocols to monitor the ongoing effect of tourism on sensitive features with particular focus on natural and built heritage assets.

**RPO's 7.7, 7.8 and 7.9** respectively relate to: reducing harmful emissions and to achieve and maintain good air quality; to avoid, mitigate and minimise noise where likely to have harmful effects; and for local authorities to consider measures to minimise harmful light pollution, including a requirement that new developments are lit appropriately and to ensure that environmentally sensitive areas are protected.

**RPO 7.10:** Support the implementation of the Water Framework Directive in achieving and maintaining at least good environmental status for all water bodies in the Region and to ensure alignment between the core objectives of the Water Framework Directive and other relevant Directives, River Basin Management plans and Local Authority land use Plans.

**RPO 7.11:** For water bodies with 'high ecological status' objectives in the Region, local authorities shall incorporate measures for both their continued protection and to restore those water bodies that have fallen below high ecological status and area 'At Risk' into the development of local planning policy and decision making any measures for the continued protection of areas with high ecological status in the Region and for mitigation of threats to waterbodies identified as 'At Risk' as part of a catchment-based approach in consultation with the relevant agencies. This shall include recognition of the need to deliver efficient wastewater facilities with sufficient capacity and thus contribute to improved water quality in the Region.

**RPO's 7.12, 7.13, 7.14 and 7.15** deal specifically with the requirements around Flood Risk to ensure compliance with national guidelines and in respect of managing and reducing flood risk and the protection of environmentally sensitive sites and habitats.

**RPO 7.15:** Local Authorities shall take opportunities to enhance biodiversity and amenities and to ensure the protection of environmentally sensitive sites and habitats, including where flood risk management measures are planned.

**RPO 7.16:** Support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the Region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and Local Authority Development Plans.

**RPO 7.17:** Facilitate cross boundary co-ordination between Local Authorities and the relevant agencies in the Region to provide clear governance arrangements and coordination mechanisms to support the development of ecological networks and enhanced connectivity between protected sites whilst also addressing the need for management of alien invasive species and the conservation of native species.

**RPO 7.20:** Promote the development of improved visitor experiences, nature conservation and sustainable development activities within the Dublin Bay Biosphere in cooperation with the Dublin Bay UNESCO Biosphere Partnership.

**RPO 7.21:** Local authorities shall promote an Ecosystem Services Approach<sup>20</sup> in the preparation of statutory land use plans.

**RPO 7.22:** Local authority Development Plan and Local Area Plans, shall identify, protect, enhance, provide and manage Green Infrastructure in an integrated and coherent manner and should also have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species.

**RPO 7.24:** Promote the development of a sustainable Strategic Greenway Network of national and regional routes, with a number of high capacity flagship routes that can be extended and /or linked with local Greenways and other cycling and walking infrastructure, notwithstanding that capacity of a greenway is limited to what is ecologically sustainable.

**RPO 7.25:** Support local authorities and state agencies in the delivery of sustainable strategic greenways, blueways, and peatways projects in the Region under the Strategy for the Future Development of National and Regional Greenways.

**RPO 7.26:** Support the development of guidance for assessment of proposed land zonings in order to achieve appropriate riparian setback distances that support the attainment of high ecological status for water bodies, the conservation of biodiversity and good ecosystem health, and buffer zones from flood plains.

**RPO 7.28:** Work with local authorities and relevant stakeholders, to identify areas of high value agricultural land and to ensure food security in the Region and to promote sustainable farming practices that maintain the quality of the natural environment, protect farm landscapes and support the achievement of climate targets.

**RPO 7.29:** Support collaboration between Local Authorities, the Bord na Móna Transition Team and relevant stakeholders and the development of partnership approaches to integrated peatland management for a just transition that incorporate any relevant policies and strategies such as the Bord na Móna Biodiversity Plan 2016-2021 and the national Climate Mitigation and Adaptation Plans. This shall include support for the rehabilitation and/or re-wetting of suitable peatland habitats.

**RPO 8.24:** EMRA supports the undertaking of feasibility studies to determine the carrying capacity of ports in relation to potential for likely significant effects on associated European sites including SPAs and SACs.

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<sup>20</sup> See Appendix G Glossary in the EMRA RSES for definition and sources.

**RPO 10.6:** Delivery and phasing of services shall be subject to the required appraisal, planning and environmental assessment processes and shall avoid adverse impacts on the integrity of the Natura 2000 network.

**RPO 10.7:** Local Authority Core Strategies shall demonstrate compliance with DHPLG Water Services Guidelines for Planning Authorities and demonstrate phased infrastructure-led growth that is commensurate with the carrying capacity of water services and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network.

**RPO 12.5:** EMRA will carry out a regular update of baseline data for monitoring purposes and will make this data publicly available to facilitate evidence-based policy making and evaluation in the Region.

**RPO's 4.17, 4.25, 4.45, 4.47, 8.8, 8.9, 8.10, 8.14, 10.2, 10.6 and 10.11** infrastructure proposals are all subject to the outcome of appropriate environmental assessment and the planning process.

### Guiding Principles

The RSES also includes *Guiding Principles* with key environmental considerations at the forefront to improve and protect ecological connectivity including principles relating to the preparation of Green Infrastructure Strategies, principles relating to consideration of development on peatland areas and urban infill and brownfield development as an example). As such, Guiding Principles which include the following environmental considerations have been included in the Final RSES:

- Under Vision Statement: One of the three Key Principles relates to Climate Action, and as part of this, recognising the role of natural capital and ecosystem services in achieving this.
- For Peatlands: Includes consideration of climate change adaptation and mitigation, habitats and species, amenity use, ecosystem services and development without impacting on water quality.
- Under Integration of Land Use and Transport: to ensure the protection of Natura 2000 networks and associated ecological linkages, and where plans/projects have potential for negative impacts, to be subject to Habitats Directive requirements.
- Regarding urban and Brownfield Regeneration/Infill: that proposals for such sites be accompanied by a risk statement and waste plan for disposal of materials, including hazardous/contaminated waste, as well as exploration of opportunities for biodiversity enhancement to improve ecological connectivity.
- In relation to Green Infrastructure: Local Authorities shall promote interconnection of GI assets, including wildlife corridors between high biodiversity areas and development of greenways. Blueways and peatways. Local Authorities shall also consider the ecological impacts of greenways and the need to strategically plan, deliver and manage GI networks to reduce environmental impacts. Local authorities shall also integrate an ecosystem services approach to address biodiversity protection, water management and climate action in planning and managing green spaces (roadside hedges, wildflower meadows, SUDS etc.)
- In relation to Surface Water: For Development Plans to take opportunities to enhance biodiversity and amenity and to ensure the protection of environmentally sensitive habitats and species. As for land use and transport, where such plans/projects have the potential to negatively impact on Natura 2000 sites that they be subject to the requirements of the Habitats Directive. Consideration is also to be given to measures that have benefits for both WFD and flood risk management objectives.



- In relation to Provision of Energy Networks: That designs achieve the least environmental impacts and that identified impacts have mitigation included.

### Key Supporting Narrative

The RSES explicitly states that feasibility studies will be carried out to support decision making in relation to policy base for this RSES and this will include an environmental appraisal which considers the potential effects on the wider environment, including specifically the Natura 2000 Network (See Chapter 3 Growth Strategy - Assessment of Possible Impacts – Environmental Assessment). The narrative explicitly states that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect. This statement is accompanied by **RPO 3.4** and **RPO 3.5**.

**Table 9.1 – How Mitigation Measures/Recommendations have been Addressed in the Final RSES**

Chapter Ref.	Proposed Mitigation Measures / Recommendations	How Has this Been Addressed in the Final Plan
<p><b>Chapter 2: Strategic Vision</b></p>	<ul style="list-style-type: none"> <li>▪ An explicit RSO should be included to protect and manage the Natura 2000 network.</li> <li>▪ The requirements of Article 10 of the Habitats Directive are not specifically considered under the AA process (except in so far as they support a qualifying feature) but it is recommended that the EMRA includes a specific RSO which addresses the ensures that ecological connectivity within the Plan area is maintained or improved, which will in turn improve the coherence of the Natura 2000 network.</li> <li>▪ Develop an ecological resource map for the region.</li> </ul>	<p>The RSES sets out 16 Regional Strategic Outcomes (RSOs) informed by and closely aligned and supportive with the National Strategic Outcomes (NSOs) of the National Planning Framework and the UN Strategic Development Goals. These have also been developed in iteration with the Strategic Environmental Outcomes of the SEA process. In this regard, RSO 11 ‘Biodiversity and Natural Heritage’ (aligning with NSO 7 and 8) “promotes co-ordinated spatial planning to conserve and enhance the biodiversity of our protected habitats and species including landscape and heritage protection”. In addition to the RSO, there are a number of key Regional Policy Objectives (RPO’s) which give specific support and protection to biodiversity and these are set out in Section 7.5. In particular, RPO 7.16 states: “Support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and Local Authority Development Plans.”</p> <p>Further, the RSES has developed suites of Guiding Principles with key environmental considerations at the forefront to improve and protect ecological connectivity (Guiding Principles in the preparation of Green Infrastructure Strategies, Guiding Principles in the consideration of development on peatland areas). RSO 11, its corresponding RPOs and Guiding Principles encapsulates the commitment of the RSES to biodiversity protection in line with international, EU and national policy.</p> <p>RPO 7.17 states: <i>Facilitate cross boundary co-ordination between Local Authorities and the relevant agencies in the Region to provide clear governance arrangements and coordination mechanisms to support the development of ecological networks and enhanced connectivity between protected sites whilst also addressing the need for management of alien invasive species and the conservation of native species.</i></p>
<p><b>Chapter 3 &amp; 4: Growth and Settlement</b></p>	<p><u>Athlone</u></p> <ul style="list-style-type: none"> <li>▪ The Joint Area Action Plans should explicitly consider potential for impact pathways in relation to European sites and the</li> </ul>	<p>The Joint Area Action Plans will be subject to their own environmental assessments which will have regard to the necessary environmental legislation, as what is required similar to a Local Area Plan.</p>

Chapter Ref.	Proposed Mitigation Measures / Recommendations	How Has this Been Addressed in the Final Plan
<p><b>Strategy - Regional Growth Centres</b></p>	<p>potential for ex-situ impacts. Action plans will ensure no adverse effects on the integrity of any European site as a key objective.</p> <ul style="list-style-type: none"> <li>▪ Phasing of services in tandem with growth and settlement is essential to avoid adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network.</li> <li>▪ In order meet the increased demands on the water supply and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources e.g. hydromorphological pressures.</li> <li>▪ Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.</li> <li>▪ A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.</li> <li>▪ Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</li> </ul> <p><u>Drogheda</u></p> <ul style="list-style-type: none"> <li>▪ Phasing of services in terms of growth and settlement is essential to avoid adverse impacts on the integrity of the Natura 2000 network.</li> <li>▪ In order meet the increased demands on the water supply and</li> </ul>	<p>The RSES recognises that where other strategies and plans undergo review or changes to reflect the national and regional policy objectives and outcomes of both the NPF, and subsequently the RSES, they should also consider any relevant environmental requirements. The RSES explicitly states that feasibility studies will be carried out to support decision making in relation to policy base for this RSES and this will include an environmental appraisal which considers the potential effects on the wider environment, including specifically the Natura 2000 Network (See Chapter 3 Growth Strategy - Assessment of Possible Impacts – Environmental Assessment).</p> <p>The narrative explicitly states that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect. This statement is accompanied by RPOs 3.4 and 3.5 detailing the requirements for environmental assessment of all plans, projects and activities including SEA, EIA and AA as appropriate and that identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.</p> <p>Further, the RSES includes an Appendix identifying key aspects of the environmental profile of the Regional Growth Centres which will inform future decision-making for projects/plans.</p> <p>RPO 7.16 states: Support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the Region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and Local Authority Development Plans.</p> <p>RPO 4.2 states: Infrastructure investment and priorities shall be aligned with the spatial planning strategy of the draft RSES. All residential and</p>

Chapter Ref.	Proposed Mitigation Measures / Recommendations	How Has this Been Addressed in the Final Plan
	<p>prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources (e.g. hydromorphological pressures).</p> <ul style="list-style-type: none"> <li>▪ Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.</li> <li>▪ A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.</li> <li>▪ Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</li> </ul> <p><u>Dundalk</u></p> <ul style="list-style-type: none"> <li>▪ The Dundalk wastewater treatment plant is operating within its design capacity and is considered to have sufficient headroom. The plant, however, is listed as a Priority Urban Area and is failing more stringent treatment standards. As such, population growth needs to be phased alongside improvements to wastewater treatment.</li> <li>▪ The expansion of activities associated with ports and marinas such as identified for Dundalk will require a feasibility study to be undertaken in the first instance and recognition that in the absence of coastal zone management, there is potential negative impacts to European sites.</li> <li>▪ An Urban Area Action Plan, which is cognisant of</li> </ul>	<p>employment developments should be planned on a phased basis in collaboration with infrastructure providers so as to ensure adequate capacity for services (e.g. water supply, wastewater, transport, broadband) is available to match projected demand for services and that the assimilative capacity of the receiving environment is not exceeded.</p> <p>RPOs 7.12, 7.13, 7.14 and 7.15 deal specifically with the requirements around flood risk to ensure compliance with national guidelines and in respect of managing and reducing flood risk and the protection of environmentally sensitive sites and habitats.</p> <p>In addition, a suite of Guiding Principles in the RSES further aid plan preparation and decision making in the region. With respect to Core Strategies Local Authorities are required to have due regard to the settlement typology of towns in the region and carefully consider the phasing of development lands to ensure that towns grow at a sustainable level appropriate to their position in the hierarchy. RPO 4.2 provides that Infrastructure investment and priorities shall be aligned with the spatial planning strategy of the draft RSES. All residential and employment developments should be planned on a phased basis in collaboration with infrastructure providers so as to ensure adequate capacity for services (e.g. water supply, wastewater, transport, broadband) is available to match projected demand for services and that the assimilative capacity of the receiving environment is not exceeded.</p> <p>RPO 3.7 states that Local Authorities shall have regard to environmental and sustainability considerations for meeting sustainable development targets and climate action commitments, in accordance with the National Adaptation Framework. In order to recognise the potential for impacts on the environment, Local Authorities shall address the proper site/route selection of any new development and examine environmental constraints including but not limited to biodiversity, flooding, landscape, cultural heritage, material assets, including the capacity of services to serve any new development.</p>

Chapter Ref.	Proposed Mitigation Measures / Recommendations	How Has this Been Addressed in the Final Plan
	<p>transboundary Local Government Authorities in Northern Ireland (Newry, Mourne and Down) should explicitly consider potential for impact pathways in relation to European sites and the potential <i>ex-situ</i> impacts.</p> <ul style="list-style-type: none"> <li>▪ Phasing of services in tandem with growth and settlement is essential to avoid adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network.</li> <li>▪ In order meet the increased demands on the water supply and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources e.g. hydromorphological pressures.</li> <li>▪ Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.</li> <li>▪ The areas within lands zoned future residential and employment hubs identified within the predicted Flood Zone A &amp; B require site specific flood risk assessments to no ensure no adverse flood risk impacts. The Justification Test applies to applications within these areas.</li> <li>▪ A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.</li> <li>▪ Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</li> </ul>	<p>In terms of water quality RPO 7.11 states: For water bodies with 'high ecological status' objectives in the Region, Local Authorities shall incorporate measures for both their continued protection and to restore those water bodies that have fallen below high ecological status and are 'At Risk' into the development of local planning policy and decision making any measures for the continued protection of areas with high ecological status in the Region and for mitigation of threats to water bodies identified as 'At Risk' as part of a catchment-based approach in consultation with the relevant agencies. This shall include recognition of the need to deliver efficient wastewater facilities with sufficient capacity and thus contribute to improved water quality in the Region.</p> <p>In terms of water supply: RPO 10.6: Delivery and phasing of services shall be subject to the required appraisal, planning and environmental assessment processes and shall avoid adverse impacts on the integrity of the Natura 2000 network. RPO 10.7: Local Authority Core Strategies shall demonstrate compliance with DHPLG Water Services Guidelines for Planning Authorities and demonstrate phased infrastructure led growth to meet demands on the water supply, suitability of new and/or existing drinking water sources (for example hydromorphological pressures) and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network.</p> <p>In terms of port development: RPO 8.24 states: EMRA supports the undertaking of feasibility studies to determine the carrying capacity of ports in relation to potential for likely significant effects on associated European sites including SPAs and SACs.</p> <p>With regards to urban infill and brownfield sites Guiding Principles deal with the complexities of these sites including development capacity, constraints, site risks and contamination.</p> <p>All plans are subject to AA when prepared. This will ensure avoidance of adverse effects on the integrity of European Sites in the first instance and</p>

Chapter Ref.	Proposed Mitigation Measures / Recommendations	How Has this Been Addressed in the Final Plan
<p><b>Chapter 3 &amp; 4: Growth Strategy and People &amp; Places - Key Growth Towns</b></p>	<p><u>Swords</u></p> <ul style="list-style-type: none"> <li>▪ Phasing of services and development in terms of growth and settlement is essential to avoid adverse impacts on the integrity of the Natura 2000 network.</li> <li>▪ Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.</li> <li>▪ In considering specific developments for the Swords area, it is important that consideration of the wider MASP objectives, which may not be under the control of the Local Authority are taken on board, particularly with respect to in-combination impacts.</li> <li>▪ In order meet the increased demands on the water supply and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of existing drinking water sources (e.g. hydromorphological pressures).</li> <li>▪ A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.</li> <li>▪ Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</li> </ul> <p><u>Maynooth</u></p> <ul style="list-style-type: none"> <li>▪ The primary emission point for the Maynooth wastewater is elsewhere as part of the Lower Liffey Valley Regional</li> </ul>	<p>mitigation measures if required.</p> <p>The RSES recognises that where other strategies and plans undergo review or changes to reflect the national and regional policy objectives and outcomes of both the NPF, and subsequently the RSES, they should also consider any relevant environmental requirements. The RSES explicitly states that feasibility studies will be carried out to support decision making in relation to policy base for this RSES and this will include an environmental appraisal which considers the potential effects on the wider environment, including specifically the Natura 2000 Network (See Chapter 3 Growth Strategy - Assessment of Possible Impacts – Environmental Assessment).</p> <p>The narrative states that, at the project consent stage, if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated, then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect. This statement is accompanied by RPO’s 3.4 and 3.5 detailing the requirements for environmental assessment of all plans, projects and activities including SEA, EIA and AA as appropriate and that identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.</p> <p>Further, the RSES includes an Appendix identifying key aspects of the environmental profile of all the Key Growth Towns which will inform future decision-making for projects/plans.</p> <p>RPO 7.16 states: Support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the Region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and Local Authority Development Plans.</p> <p>RPO 4.2 states: Infrastructure investment and priorities shall be aligned with the spatial planning strategy of the RSES. All residential and</p>

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	<p>Sewerage Scheme. However there is storm water overflow to the Rye water, a river whose WFD status is poor and at risk. Increasing population growth in Maynooth should be planned on a phased basis in collaboration with Irish Water and the local authority to ensure that the assimilative capacity of the receiving environment is not exceeded and that increased wastewater discharges from population growth does not contribute to cumulative degradation of water quality.</p> <ul style="list-style-type: none"> <li>▪ Phasing of services and development in terms of growth and settlement is essential to avoid adverse impacts on the integrity of the Natura 2000 network.</li> <li>▪ Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.</li> <li>▪ In order meet the increased demands on the water supply and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network, due consideration in consultation with Irish Water should be given to the suitability of existing drinking water sources (e.g. hydromorphological pressures).</li> <li>▪ A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.</li> <li>▪ Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</li> </ul> <p><u>Bray</u></p>	<p>employment developments should be planned on a phased basis in collaboration with infrastructure providers so as to ensure adequate capacity for services (e.g. water supply, wastewater, transport, broadband) is available to match projected demand for services and that the assimilative capacity of the receiving environment is not exceeded.</p> <p>RPOs 7.12, 7.13, 7.14 and 7.15 deal specifically with the requirements around Flood Risk to ensure compliance with national guidelines and in respect of managing and reducing flood risk and the protection of environmentally sensitive sites and habitats.</p> <p>In addition, a suite of Guiding Principles in the RSES further aid plan preparation and decision making in the region. With respect to Core Strategies Local Authorities are required to have due regard to the settlement typology of towns in the region and carefully consider the phasing of development lands to ensure that towns grow at a sustainable level appropriate to their position in the hierarchy.</p> <p>RPO 3.7 states that Local Authorities shall have regard to environmental and sustainability considerations for meeting sustainable development targets and climate action commitments, in accordance with the National Adaptation Framework. In order to recognise the potential for impacts on the environment, Local Authorities shall address the proper site/route selection of any new development and examine environmental constraints including but not limited to biodiversity, flooding, landscape, cultural heritage, material assets, including the capacity of services to serve any new development.</p> <p>In terms of water quality RPO 7.11 states: For water bodies with 'high ecological status' objectives in the Region, Local Authorities shall incorporate measures for both their continued protection and to restore those water bodies that have fallen below high ecological status and are 'At Risk' into the development of local planning policy and decision making any measures for the continued protection of areas with high ecological status in the Region and for mitigation of threats to water</p>

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	<ul style="list-style-type: none"> <li>▪ Phasing of services and development in terms of growth and settlement is essential to avoid adverse impacts on the integrity of the Natura 2000 network.</li> <li>▪ Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.</li> <li>▪ In order meet the increased demands on the water supply and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network, due consideration in consultation with Irish Water should be given to the suitability of existing drinking water sources (e.g. hydromorphological pressures).</li> <li>▪ A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.</li> <li>▪ Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</li> </ul> <p><u>Navan</u></p> <ul style="list-style-type: none"> <li>▪ The primary emission point for the Navan wastewater treatment plant is noted to discharge to a section of the River Boyne which is at Moderate WFD status and At Risk of not meeting WFD objectives, and is also a designated Nutrient Sensitive River as a result of the wastewater outfall. Increasing population growth should be planned on a phased basis in collaboration with Irish Water and the local authority to ensure that the assimilative capacity of the receiving</li> </ul>	<p>bodies identified as ‘At Risk’ as part of a catchment-based approach in consultation with the relevant agencies. This shall include recognition of the need to deliver efficient wastewater facilities with sufficient capacity and thus contribute to improved water quality in the Region.</p> <p>In terms of water supply:                      RPO 10.6: Delivery and phasing of services shall be subject to the required appraisal, planning and environmental assessment processes and shall avoid adverse impacts on the integrity of the Natura 2000 network.                      RPO 10.7: Local Authority Core Strategies shall demonstrate compliance with DHPLG Water Services Guidelines for Planning Authorities and demonstrate phased infrastructure led growth to meet demands on the water supply, suitability of new and/or existing drinking water sources (for example hydromorphological pressures) and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network.</p> <p>In terms of port development:                      RPO 8.24 states: EMRA supports the undertaking of feasibility studies to determine the carrying capacity of ports in relation to potential for likely significant effects on associated European sites including SPAs and SACs. Specifically in relation to harbour development at Wicklow, RPO 4.56 states: Support enhancement and expansion of Wicklow port and harbour, to expand commercial berthing and pleasure craft capacity subject to a feasibility study with particular focus on avoiding adverse impacts on the integrity of adjacent European Sites.</p> <p>With regards to urban infill and brownfield sites Guiding Principles deal with the complexities of these sites including development capacity, constraints, site risks and contamination.</p> <p>All plans are subject to AA when prepared. This will ensure avoidance of adverse effects on the integrity of European Sites in the first instance and mitigation measures if required.</p>



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	<p>environment is not exceeded and that increased wastewater discharges from population growth does not contribute to degradation of water quality.</p> <ul style="list-style-type: none"> <li>▪ Any development within the River Boyne and Blackwater SAC/SPA and pNHA as part of the Boyne Greenway should consider all likely significant effects. It is noted that the RPO for the extension of the Boyne Greenway state that this is subject to the outcome of the planning process and environmental assessments.</li> <li>▪ Phasing of services in tandem with growth and settlement is essential to avoid adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network.</li> <li>▪ In order meet the increased demands on the water supply and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources e.g. hydromorphological pressures.</li> <li>▪ Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.</li> <li>▪ A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.</li> </ul> <p><u>Naas</u></p> <ul style="list-style-type: none"> <li>▪ Population growth targets within the catchment areas being served by the Upper Liffey Valley Sewerage Scheme/Oberstown Wastewater Plant, which includes Naas as well as other towns, should have regard to the status and progress of the planned upgrades to the plant and other</li> </ul>	

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	<p>network elements, which will be subject to the outcomes of the planning process, to ensure the protection of the environment and water quality.</p> <ul style="list-style-type: none"> <li>▪ Phasing of services in tandem with growth and settlement is essential to avoid adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network.</li> <li>▪ In order meet the increased demands on the water supply and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources e.g. hydromorphological pressures.</li> <li>▪ Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.</li> <li>▪ A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.</li> <li>▪ Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</li> </ul> <p><u>Wicklow-Rathnew</u></p> <ul style="list-style-type: none"> <li>▪ With regard to the enhancement and expansion of Wicklow port and harbour, to expand commercial berthing and pleasure craft capacity, a study will be undertaken on its feasibility, with particular focus on avoiding adverse impacts</li> </ul>	

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	<p>on the integrity of adjacent European Sites.</p> <ul style="list-style-type: none"> <li>▪ Phasing of services in terms of growth and settlement is essential to avoid adverse impacts on the integrity of the Natura 2000 network.</li> <li>▪ In order meet the increased demands on the water supply and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources (e.g. hydromorphological pressures).</li> <li>▪ Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.</li> <li>▪ A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.</li> <li>▪ Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</li> </ul> <p><u>Longford</u></p> <ul style="list-style-type: none"> <li>▪ Phasing of services in terms of growth and settlement is essential to avoid adverse impacts on the integrity of the Natura 2000 network.</li> <li>▪ In order meet the increased demands on the water supply and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or</li> </ul>	

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	<p>existing drinking water sources (e.g. hydromorphological pressures).</p> <ul style="list-style-type: none"> <li>▪ Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.</li> <li>▪ A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.</li> <li>▪ Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</li> </ul> <p><u>Mullingar</u></p> <ul style="list-style-type: none"> <li>▪ Mullingar treatment is noted to be currently operating within capacity. Increasing population growth should be planned on a phased basis in collaboration with Irish Water and the local authority to ensure that the assimilative capacity of the receiving environment is not exceeded and that increased wastewater discharges from population growth does not contribute to degradation of water quality.</li> <li>▪ Phasing of services in tandem with growth and settlement is essential to avoid adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network.</li> <li>▪ In order meet the increased demands on the water supply and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or</li> </ul>	

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	<p>existing drinking water sources e.g. hydromorphological pressures.</p> <ul style="list-style-type: none"> <li>▪ Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.</li> <li>▪ A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.</li> <li>▪ Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</li> </ul> <p><u>Tullamore</u></p> <ul style="list-style-type: none"> <li>▪ The primary emission point for the Tullamore wastewater treatment plant is noted to discharge to a section of the River Tullamore which is at Poor WFD status and At Risk of not meeting WFD objectives, and is also a designated Nutrient Sensitive River as a result of the wastewater outfall. Increasing population growth should be planned on a phased basis in collaboration with Irish Water and the local authority to ensure that the assimilative capacity of the receiving environment is not exceeded and that increased wastewater discharges from population growth does not contribute to degradation of water quality.</li> <li>▪ Phasing of services in tandem with growth and settlement is essential to avoid adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network.</li> </ul>	

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	<ul style="list-style-type: none"> <li>▪ In order meet the increased demands on the water supply and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources e.g. hydromorphological pressures.</li> <li>▪ Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.</li> <li>▪ A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.</li> <li>▪ Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</li> </ul> <p><u>Portlaoise</u></p> <ul style="list-style-type: none"> <li>▪ Phasing of services in terms of growth and settlement is essential to avoid adverse impacts on the integrity of the Natura 2000 network.</li> <li>▪ With regard to the management of wastewater, increasing population growth should therefore be planned on a phased basis in collaboration with Irish Water and the local authorities to ensure that the assimilative capacity of the receiving environment is not exceeded and that increased wastewater discharges from population growth does not contribute to degradation of water quality.</li> <li>▪ In order meet the increased demands on the water supply and</li> </ul>	

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	<p>prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources (e.g. hydromorphological pressures).</p> <ul style="list-style-type: none"> <li>▪ Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.</li> <li>▪ A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.</li> <li>▪ Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</li> </ul> <p><u>Carlow (Graiguecullen)</u></p> <ul style="list-style-type: none"> <li>▪ With respect to the co-ordinated cross-boundary joint UAP by Carlow and Laois County Councils, regard shall be had to the respective housing, retail and other Local Authority strategies that may be in place.</li> <li>▪ Phasing of services in terms of growth and settlement is essential to avoid adverse impacts on the integrity of the Natura 2000 network.</li> <li>▪ With regard to the management of wastewater, increasing population growth should therefore be planned on a phased basis in collaboration with Irish Water and the local authorities to ensure that the assimilative capacity of the receiving environment is not exceeded and that increased wastewater</li> </ul>	

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	<p>discharges from population growth does not contribute to degradation of water quality.</p> <ul style="list-style-type: none"> <li>▪ In order meet the increased demands on the water supply and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources (e.g. hydromorphological pressures).</li> <li>▪ Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.</li> <li>▪ A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.</li> <li>▪ Policy wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</li> </ul>	
<p><b>Chapter 5: Dublin Metropolitan Area Strategic Plan (MASP)</b></p>	<ul style="list-style-type: none"> <li>▪ RPO 5.6: The RPO should stipulate that the identification of suitable employment sites shall be supported by a quality site selection process that addresses environmental concerns which shall include the potential for likely significant effects on European sites</li> <li>▪ RPO: 5.8: The NTA Cycle Network Plan has assessed the potential adverse effect of the routes identified and mitigation measures have been developed to address negative effects. The RSES should stipulate that support for these routes is subject to compliance with the mitigation measures as outlined in the NIS for the NTA strategy.</li> </ul>	<p>The RSES explicitly states that feasibility studies will be carried out to support decision making in relation to policy base for the RSES and this will include an environmental appraisal which considers the potential effects on the wider environment, including specifically the Natura 2000 Network (Chapter 3 Growth Strategy - Assessment of Possible Impacts – Environmental Assessment).</p> <p>The narrative explicitly states that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse</p>



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		<p>effect. This statement is accompanied by RPO 3.4 and RPO 3.5 detailing the requirements for environmental assessment of all plans, projects and activities including SEA, EIA and AA as appropriate.</p> <p>RPO 3.5 states that identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.</p> <p>All plans and projects are subject to AA when prepared as has been the case for the NTA Cycle Network Plan. While the EM_RSES does not stipulate that support for the routes in the cycle plan is subject to compliance with the mitigation measures as outlined in the NIS for the NTA Cycle Network Plan, it is acknowledged that the compliance of the strategy and subsequent development of the routes proposed therein is bound by the commitments made by NTA in support of their AA determination.</p>
<p><b>Chapter 6: Economy and Employment</b></p>	<ul style="list-style-type: none"> <li>▪ Economic Base: The region will develop and apply guiding principles for the protection of the Natura 2000 network and the avoidance of adverse effect on integrity of European sites.</li> <li>▪ Sustainable Development: Specific reference should be made to potential for adverse effects on European sites as one of the issues to examine.</li> <li>▪ Rural Economy: Local economy and community plans are subject to AA when prepared. This will ensure avoidance of adverse effects in the first instance and mitigation measures if required.</li> <li>▪ Tourism Assets                         <ul style="list-style-type: none"> <li>○ Visitor Experience Development Plans will require AA.</li> <li>○ Visitor Experience Development Plans will specifically include a clear plan to avoid adverse effects on the integrity of European sites within the zone of influence of the plan including specific consideration of how supporting infrastructure like car parks and shops can influence the level of pressure on habitats and species the immediate vicinity.</li> <li>○ EMRA will support Local Authorities in the developing</li> </ul> </li> </ul>	<p>Guiding principles for the location of strategic employment includes the following amendment: Suitable locations (depending on the extent to which an enterprise is people or space intensive <b>or subject to environment constraints</b>).</p> <p>The RSES has developed suites of Guiding Principles with key environmental considerations at the forefront to improve and protect ecological connectivity (Guiding Principles in the preparation of Green Infrastructure Strategies, Guiding Principles in the consideration of development on peatland areas).</p> <p>RPO 3.7 states: Local Authorities shall have regard to environmental and sustainability considerations for meeting sustainable development targets and climate action commitments, in accordance with the National Adaptation Framework. In order to recognise the potential for impacts on the environment, Local Authorities shall address the proper site/route selection of any new development and examine environmental constraints including but not limited to biodiversity, flooding, landscape, cultural heritage, material assets, including the capacity of services to serve any new development.</p> <p>The RSES explicitly states that feasibility studies will be carried out to support decision making in relation to policy base for this RSES and this will</p>

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	<p>specific monitoring protocols for visitor pressure to ensure that tourism activities are maintained within sustainable limits for the European sites in the region.</p> <ul style="list-style-type: none"> <li>▪ Skills and Talent: It is recommended that RAPJs, LEOs and Local Authorities are supported by the Regional Assemblies in upskilling on compliance with AA obligations through the planning hierarchy.</li> <li>▪ Technology and Innovation: Robust feasibility and site selection, which includes explicit consideration of likely significant effects on European sites and where relevant potential for adverse effects on the integrity of a European site will be carried out in advance of any site development.</li> </ul>	<p>include an environmental appraisal which considers the potential effects on the wider environment, including specifically the Natura 2000 Network (Chapter 3 Growth Strategy – Growth Enablers for the Region – Environmental Assessment).</p> <p>The narrative explicitly states that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect. This statement is accompanied by RPOs 3.4 and 3.5 detailing the requirements for environmental assessment of all plans, projects and activities including SEA, EIA and AA as appropriate. RPO 3.5 states that identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.</p> <p>With regard to tourism and visitor pressures, RPO 6.18 states: Support the preparation and implementation of Local Authority Tourism Strategies and Diaspora Strategies. All tourism strategies and plans should include clear monitoring protocols to monitor the ongoing effect of tourism on sensitive features with particular focus on natural and built heritage assets.</p> <p>With regards to RAPJs, LEOs and Local Authorities upskilling on compliance with AA obligations, it is not considered that upskilling on necessary statutory legislative requirements is a matter to be added to the Guiding Principles for Enterprise development.</p>
<p><b>Chapter 7: Environment and Climate</b></p>	<ul style="list-style-type: none"> <li>▪ Land and marine plans are subject to AA when prepared. This will ensure avoidance of adverse effects on the integrity of European Sites in the first instance and mitigation measures if required.</li> <li>▪ Any plans relating to the development of wastewater facilities are subject to AA when prepared. This will ensure avoidance of adverse effects on the integrity of European Sites in the first instance and mitigation measures if required.</li> <li>▪ Any plans such as those relating to local flooding solutions are</li> </ul>	<p>In terms of alignment with other plans and directives, the RSES and its 16 Regional Strategic Outcomes has been aligned with International EU and national policy and which in turn sets the framework for City and County Development Plans.</p> <p>All plans will be subject to AA; the narrative also explicitly states that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for</p>

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	<p>subject to AA when prepared. This will ensure avoidance of adverse effects on the integrity of European Sites in the first instance and mitigation measures if required.</p> <ul style="list-style-type: none"> <li>▪ Biodiversity and Natural Heritage: Any plans for developments within European sites must be cognisant of the implications of increased visitor pressure upon QI/SCIs within the site.</li> <li>▪ Any plans are subject to AA when prepared. This will ensure avoidance of adverse effects on the integrity of European Sites in the first instance and mitigation measures if required.</li> <li>▪ Green and Blue Infrastructure: Any development is supported by a quality site/route selection process that addresses environmental concerns such as landscape, cultural heritage and biodiversity as a minimum.</li> <li>▪ Any future development of greenways, blueways, peatways, cycleways or walkways will include an assessment of any impacts that may arise from increased visitor pressures, in particular, on sensitive European sites and the design of the network will consider the provision of protective measures on sites sensitive to disturbance/visitor pressure.</li> <li>▪ In order implement sustainable farming practices and prevent adverse effects on European sites the RSES must align with other plans and directives such as the River Basin Management Plans, Water Framework Directive, Nitrates Directive, Nitrates Action Plan, National Biodiversity Action Plans, Climate Mitigation and Adaptation Plans, Flood Risk Management Plans and any other related plans.</li> <li>▪ Landscape: Any plans are subject to AA when prepared. This will ensure avoidance of adverse effects on the integrity of European Sites in the first instance and mitigation measures if required.</li> <li>▪ Climate Change: Any plans are subject to AA when prepared prior to adoption. This will ensure avoidance of adverse effects on the integrity of European Sites in the first instance and mitigation measures if required.</li> </ul>	<p>the level and location of development for which it can be concluded that there will be no adverse effect.</p> <p>Guiding Principles developed in relation to Green Infrastructure state that Local Authorities shall promote interconnection of GI assets, including wildlife corridors between high biodiversity areas and development of greenways. Blueways and peatways. Local Authorities shall also consider the ecological impacts of greenways and the need to strategically plan, deliver and manage GI networks to reduce environmental impacts. Local authorities shall also integrate an ecosystem services approach to address biodiversity protection, water management and climate action in planning and managing green spaces (roadside hedges, wildflower meadows, SUDS etc.)</p> <p>The Guiding Principles for Peatlands includes consideration of peatlands and climate change adaptation and mitigation, habitats and species, amenity use, ecosystem services and development without impacting on water quality.</p> <p>RPO 7.21 states: Local Authorities shall promote an Ecosystem Services Approach in the preparation of statutory land use plans.</p> <p>RPO’s 7.12, 7.13, 7.14 and 7.15 deal specifically with the requirements around flood risk to ensure compliance with national guidelines and in respect of managing and reducing flood risk and the protection of environmentally sensitive sites and habitats.</p> <p>In relation to accessing state lands and visitor pressures, RPO 6.17 states: Support the maintenance of, and enhanced access to state and semi-state lands such as National Parks, Forest Parks, Waterways, etc., together with Monuments and Historic Properties, for recreation and tourism purposes. Access should be planned and managed in a sustainable manner that protects environmental sensitivities, ecological corridors, and the ability of local infrastructure to support increased tourism. In addition, RPO 6.18 states: Support the preparation and implementation of Local Authority Tourism Strategies and Diaspora Strategies. All tourism strategies and plans should include clear monitoring protocols to monitor the ongoing effect of</p>

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		<p>tourism on sensitive features with particular focus on natural and built heritage assets.</p> <p>RPO 7.10 supports the implementation of the WFD and alignment with other relevant directives and plans such as the RBMP. RPO 7.11 states that local authorities take a catchment-based approach in consultation with relevant agencies in the development of local planning policy and decision-making for the protection of areas with High ecological status, and for those water bodies identified as being At Risk.</p> <p>In relation to farming, RPO 7.28 commits to working with local authorities and relevant stakeholders to, amongst other things, promoting sustainable farming practices that maintain the quality of the natural environment.</p> <p>In relation to climate change commitments, RPO 3.7 states that Local Authorities shall have regard to environmental and sustainability considerations for meeting sustainable development targets and climate action commitments, in accordance with the National Adaptation Framework. In order to recognise the potential for impacts on the environment, Local Authorities shall address the proper site/route selection of any new development and examine environmental constraints including but not limited to biodiversity, flooding, landscape, cultural heritage, material assets, including the capacity of services to serve any new development.</p> <p>Any climate plans will also be subject to the provision of RPO’s 3.4 and 3.5, detailing the requirements for environmental assessment of all plans, projects and activities including SEA, EIA and AA as appropriate.</p>
<p><b>Chapter 8: Connectivity</b></p>	<ul style="list-style-type: none"> <li>▪ The guiding principles for integration of transport planning and land use planning should explicitly reference the protection of the Natura 2000 networks and the ecological linkages which support it.</li> <li>▪ AA of local transport plans will be required.</li> <li>▪ Rail Infrastructure: As per the RPO, support for these projects is subject to the outcome of appropriate environmental assessment and the planning process. Furthermore as per commitments in Chapter 3 of the draft RSES Detailed and robust route and site selection will be required to inform decision making in relation to the rail projects listed.</li> </ul>	<p>The protection of the Natura 2000 network and the ecological linkages that support it have been addressed through relevant RPO’s, supporting narrative and guiding principles.</p> <p>In particular the following RPO’s have been included: Environmental Assessment (RPO 3.4 and 3.5), Settlement Strategy RPO 4.2 provides that Infrastructure investment and priorities shall be aligned with the spatial planning strategy of the RSES. All residential and employment developments should be planned on a phased basis in collaboration with infrastructure providers so as to ensure adequate capacity for services (e.g. water supply, wastewater, transport, broadband) is available to match projected demand for services and that the assimilative capacity of the</p>

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	<ul style="list-style-type: none"> <li>▪ Bus Infrastructure: As per the RPO, support for these projects is subject to the outcome of appropriate environmental assessment and the planning process. Furthermore as per commitments in Chapter 3 of the draft RSES Detailed and robust route and site selection will be required to inform decision making in relation to the bus projects listed.</li> <li>▪ Road Infrastructure: As per the RPO, support for these projects is subject to the outcome of appropriate environmental assessment and the planning process. Furthermore as per commitments in Chapter 3 of the draft RSES detailed and robust route and site selection will be required to inform decision making in relation to the road projects listed.</li> <li>▪ A specific development plan for this Dublin-Belfast corridor should be prepared in consultation with NI authorities. This should in turn be subject to AA once clear objectives and proposals are known.</li> <li>▪ A feasibility study into the impact of high speed rail on the European sites along the corridor with particular attention to bird populations, between Belfast-Dublin-Cork will be required to inform decision making in relation to such a proposal.</li> <li>▪ Park and Ride: As per the RPO, support for these projects is subject to the outcome of appropriate environmental assessment and the planning process. Furthermore as per commitments in Chapter 3 of the draft RSES detailed and robust route and site selection will be required to inform decision making in relation to the park and ride projects listed.</li> <li>▪ As per commitments in Chapter 3 of the draft RSES detailed and robust route and site selection will be required to inform decision making in relation to the walking and cycling infrastructure referenced with a view to identifying and subsequently avoiding high sensitivity feeding or nesting points for birds and other sensitive fauna.</li> <li>▪ The mitigation measures provided for in the NIS for the National Cycle Plan and the GDA Cycle Network should be fully</li> </ul>	<p>receiving environment is not exceeded.</p> <p>Sustainable Growth RPO 3.7 states that Local Authorities shall have regard to environmental and sustainability considerations for meeting sustainable development targets and climate action commitments, in accordance with the National Adaptation Framework. In order to recognise the potential for impacts on the environment, Local Authorities shall address the proper site/route selection of any new development and examine environmental constraints including but not limited to biodiversity, flooding, landscape, cultural heritage, material assets, including the capacity of services to serve any new development.</p> <p>Biodiversity and Natural Heritage RPO 7.16 states: Support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the Region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and Local Authority Development Plans. RPO 7.17 commits to cross boundary co-ordination between Local Authorities and the relevant agencies in the Region to provide clear governance arrangements and coordination mechanisms to support the development of ecological networks and enhanced connectivity between protected sites whilst also addressing the need for management of alien invasive species and the conservation of native species.</p> <p>A new guiding principle under Integration of Land Use and Transport has also been included as follows: Ensure the protection of Natura 2000 networks and associated ecological linkages. Plans and projects that have the potential to negatively impact on Natura 2000 sites should be subject to the requirement of the Habitats Directive.</p> <p>In addition the RSES explicitly states that feasibility studies will be carried out to support decision making in relation to policy base for this RSES and this will include an environmental appraisal which considers the potential effects on the wider environment, including specifically the Natura 2000 Network (See Chapter 3 Growth Strategy – Growth Enablers for the Region – Environmental Assessment).</p> <p>The narrative explicitly states that at the project consent stage if it appears</p>

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	<p>applied.</p> <ul style="list-style-type: none"> <li>▪ The National Cycle Plan should undergo AA to align with the decision making applied to the GDA Cycle Network Strategy.</li> <li>▪ As per the road and rail priorities listed elsewhere, support for investment in international gateways should be clearly linked to the outcome of appropriate environmental assessment and the planning process. Furthermore as per commitments in Chapter 3 of the draft RSES detailed and robust route and site selection will be required to inform decision making in relation to such projects.</li> <li>▪ EMRA should seek to support an appraisal of the existing drainage systems in operation at Dublin Airport to ensure it is capturing pollutants to avoid downstream impacts on water quality which provides a direct link to European sites. An analysis of the drainage system for capacity to take increased air traffic movements associated with secondary hubbing proposals is also required to inform future planning.</li> <li>▪ EMRA should seek to support a dedicated study into the impact of aircraft movements at Dublin Airport on European sites on landing and take-off flight paths to and from the airport to inform future project proposals and planning for strategic infrastructure at the airport.</li> <li>▪ The mitigation measures provided for in the NIS for the National Broadband Plan should be fully applied.</li> </ul>	<p>that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect. This statement is accompanied by RPO 3.4 and RPO 3.5 detailing the requirements for environmental assessment of all plans, projects and activities including SEA, EIA and AA as appropriate and that identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.</p> <p>The NTA Cycle Network Plan has been subject to AA. While the EM_RSES does not stipulate that support for the routes in the cycle plan is subject to compliance with the mitigation measures as outlined in the NIS for the NTA Cycle Network Plan, it is acknowledged that the compliance of the strategy and subsequent development of the routes proposed therein is bound by the commitments made by NTA in support of their AA determination.</p> <p>With regards to Dublin Airport, any expansion of activities as part of plans or projects will be subject to individual environmental assessment and would be the appropriate opportunity to undertake more focused assessments and inform decision making at the project level.</p> <p>All plans are subject to AA when prepared. This will ensure avoidance of adverse effects in the first instance and mitigation measures if required. Any mitigation measures arising from the AA of these plans must be carried through to project stage. A stipulation within the RSES stating compliance with these mitigation measures is not required to be reiterated in this strategic document.</p>
<b>Chapter 9: Quality of Life</b>	<i>None required</i>	<i>No action required.</i>
<b>Chapter 10: Infrastructure</b>	<ul style="list-style-type: none"> <li>▪ Delivery of these services will be subject to appropriate environmental assessment and the planning process.</li> </ul>	A new guiding principle under Integration of Land Use and Transport has also been included as follows: Ensure the protection of Natura 2000

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	<ul style="list-style-type: none"> <li>▪ Phasing of services in terms of growth and settlement is essential to avoid adverse impacts on the integrity of the Natura 2000 network.</li> <li>▪ In order meet the increased demands on the water supply and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network, due consideration should be given to the suitability of new and/or existing drinking water sources (e.g. hydromorphological pressures).</li> <li>▪ Selection of sites for regeneration and expansion should be supported by a quality site selection process and subject to detailed environmental assessment.</li> <li>▪ A set of site selection criteria should be developed by EMRA to assist local authorities in decision making. This should include explicit consideration of the potential for likely significant effects as a distinct criterion for short-listing of site and if necessary the potential of sites to avoid adverse effects on the integrity of any European site.</li> <li>▪ For the management of wastewater, increasing population growth should be planned on a phased basis in collaboration with Irish Water and the Local Authorities to ensure that the assimilative capacity of the receiving environment is not exceeded and that increased wastewater discharges from population growth does not contribute to degradation of water quality.</li> <li>▪ As stated in the guiding principles of the draft RSES, 'Plans and projects that have the potential to negatively impact on Natura 2000 sites should be subject to the requirements of the Habitats Directive.'</li> <li>▪ See mitigation in relation to flood risk management in Section 7.6.</li> <li>▪ The enabling new Smart Grids and Smart Cities Action Plan should be subject to AA to ensure that connections, grid balancing, energy management and micro grid development do not adversely affect site integrity of any European sites.</li> </ul>	<p>networks and associated ecological linkages. Plans and projects that have the potential to negatively impact on Natura 2000 sites should be subject to the requirement of the Habitats Directive.</p> <p>Guiding Principles in relation to Surface Water state that Development Plans should take opportunities to enhance biodiversity and amenity and to ensure the protection of environmentally sensitive habitats and species. As for land use and transport, where such plans/projects have the potential to negatively impact on Natura 2000 sites that they be subject to the requirements of the Habitats Directive. Consideration is also to be given to measures that have benefits for both WFD and flood risk management objectives.</p> <p>In relation to Provision of Energy Networks the Guiding Principles state that designs should achieve the least environmental impacts and that identified impacts have mitigation measures included.</p> <p>All plans are subject to AA when prepared. This will ensure avoidance of adverse effects in the first instance and mitigation measures if required. Any mitigation measures arising from the AA of these plans must be carried through to project stage. A stipulation within the RSES stating compliance with these mitigation measures is not required to be reiterated in this strategic document.</p> <p>RPO 10.6: Delivery and phasing of services shall be subject to the required appraisal, planning and environmental assessment processes and shall avoid adverse impacts on the integrity of the Natura 2000 network.</p> <p>RPO 10.7: Local Authority Core Strategies shall demonstrate compliance with DHPLG Water Services Guidelines for Planning Authorities and demonstrate phased infrastructure-led growth that is commensurate with the carrying capacity of water services and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network.</p> <p>Under RPO's 10.2, 10.6 and 10.11, infrastructure proposals are all subject to the outcome of appropriate environmental assessment and the planning process. RPO 10.24 references sustainable development of offshore</p>

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	<ul style="list-style-type: none"> <li>▪ Amend sustainable offshore development to include the following text in line with the other RPOs in the section: subject to appropriate environmental assessment and the outcome of the planning process.</li> <li>▪ Ensure proper site selection of any proposed storage space which includes criteria to avoid likely significant effects on European sites and if necessary avoids adverse effects on site integrity.</li> </ul>	<p>resources. It is acknowledged that SEA and AA has been completed for the OREDP and the mitigation contained therein shall be implemented to achieve sustainable development of the offshore resource.</p>
<p><b>Chapter 11: All Island Cohesion</b></p>	<ul style="list-style-type: none"> <li>▪ Co-ordination and integration of plans and programmes with the relevant bodies in both jurisdictions to ensure that the potential for adverse effects is addressed in a coherent manner (e.g. catchment based strategies).</li> <li>▪ Any plans or programmes that stem from all island cohesion will be subject to appropriate environmental assessment.</li> </ul>	<p>All plans are subject to AA when prepared. This will ensure avoidance of adverse effects in the first instance and mitigation measures if required. Any mitigation measures arising from the AA of these plans must be carried through to project stage. A stipulation within the RSES stating compliance with these mitigation measures is not required to be reiterated in this strategic document.</p> <p>RPO 7.17 on coordination will facilitate cross boundary co-ordination between Local Authorities and the relevant agencies in the Region to provide clear governance arrangements and coordination mechanisms to support the development of ecological networks and enhanced connectivity between protected sites whilst also addressing the need for management of alien invasive species and the conservation of native species.</p> <p>In relation to water bodies, some of which may be transboundary, RPO 7.11 states that for water bodies with 'high ecological status' objectives in the Region, Local Authorities shall incorporate measures for both their continued protection and to restore those water bodies that have fallen below high ecological status and are 'At Risk' into the development of local planning policy and decision making any measures for the continued protection of areas with high ecological status in the Region and for mitigation of threats to water bodies identified as 'At Risk' as part of a catchment-based approach in consultation with the relevant agencies.</p>
<p><b>Chapter 12: Implementation and Monitoring</b></p>	<ul style="list-style-type: none"> <li>▪ A regional working group should be established to improve the coherence of European Site protection and management and to address cross-boundary site and species protection.</li> <li>▪ A repository for NIS and NIR documents should be established to facilitate data sharing and exchange on transboundary sites.</li> <li>▪ Consideration should be given to requiring planning</li> </ul>	<p>Under RPO 12.5, it is stated that EMRA will carry out a regular update of baseline data for monitoring purposes, and will make this data publicly available to facilitate evidence-based policy making and evaluation in the Region.</p> <p>With particular regard to tourism, RPO 6.18 states that EMRA supports clear monitoring protocols for tourism/diaspora plans to monitor the ongoing</p>



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	permissions, particularly for large infrastructure in the region, to provide raw data in a readily searchable format to improve the evidence base available for decision makers at planning authority level.	effect of tourism on sensitive features, with particular focus on natural and built heritage assets.

## 10 CONCLUSION

This Natura Impact Report has considered the potential of the Eastern and Midlands RSES to give rise to likely significant effects which could adversely affect any European site, with regard to their qualifying interests, associated conservation status and the overall site integrity.

In considering the potential for adverse effects, it has been noted that the Eastern and Midlands RSES is a strategic regional policy framework, to inform the preparation of land use plans such as city and county development plans and local area plans. These lower tier plans will include additional necessary detail on the form and expression of regional policy objectives.

The RSES does not confer planning or designate or allocate specific land uses, nor does it preclude the consideration of alternatives. At the time the policies of these lower tier plans are being adopted, more detail will be known as to the proposed locations, for example, land zonings or infrastructural projects. These lower tier plans and their detailed objectives and policies will themselves be subject to appropriate assessment and will therefore be fully considered as part of that appropriate assessment at that time. As such, the RSES itself will not adversely affect the integrity of any European Site.

Notwithstanding this, a precautionary approach has been applied in order to ensure that these lower tier plans do not themselves give rise to effects on the integrity of European sites, by explicitly including a number of safeguards, which will guide the lower tier plans in the protection of the Natura 2000 network.

In the first instance, the overarching Regional Strategic Objective **RSO 11** commits to: promoting co-ordinated spatial planning to conserve and enhance the biodiversity of protected habitats and species including landscape and heritage protection. This is supported by relevant **RSO 1** relating to sustainable growth, **RSO 4** relating to clean air and water for healthy communities, **RSO 7** addressing sustainable management of environmental resources, **RSO's 8 and 9** addressing our transition to a low carbon and climate resilient society, **RSO 10** promoting green infrastructure and **RSO 16** promoting collaboration and partnership.

The narrative explicitly states that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect. This statement is accompanied by **RPO 3.4** detailing the requirements for environmental assessment of all plans, projects and activities including SEA, EIA and AA as appropriate. In addition, the future strategic development of settlements throughout the Region will have full cognisance of the legal requirements pertaining to sites of International Nature Conservation Interest and **RPO 3.5** which states that identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.

Further to the RSO's there are also a number of Regional Policy Objectives (RPO's) which give further support to these RSO's in the area of alignment of the spatial planning strategy with capacity in services (**RPO 4.2**); and the need for proper site and route selection to inform new development (**RPO 3.7**). Sector specific protections are also included such as the need for proper planning of

tourism strategies (**RPO 6.18**); consideration of the carrying capacity of water services to prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network (**RPO 10.7**) and the need for feasibility studies to determine the carrying capacity of ports in relation to potential for likely significant effects on associated European sites including SPAs and SACs (**RPO 8.24**). These policies and the other RPOs outlined at the start of **Chapter 9** address the need to better integrate biodiversity protection and management of protected habitats and species into land use planning. They also set the scene for a cascading hierarchy of protection by explicitly ensuring that all plans, projects and activities informed by the RSES in line with the approach proposed under the NPF and will be subject to the provisions of the Planning and Development Act 2000, as amended and/ or the Birds and Natural Habitats Regulations 2011, as amended, both of which include provisions intended to ensure compliance with the Habitats Directive through the planning hierarchy.

In considering “in combination” or “cumulative” impacts, it is again emphasised that the RSES is a strategic regional plan, and does not determine the precise location of any development project or designate or allocate specific land uses, nor does it preclude the consideration of alternatives. The public authority making the lower tier plans retains discretion as to the nature, scale and location of specific development projects and can thus avoid adverse effects on the integrity of any European site. The making of these lower tier plans is subject under the relevant provisions of national law to Stage 1 screening, and Stage 2 appropriate assessment as required. These statutory provisions are underscored by the specific objectives in the RSES (discussed above) which expressly state that they are subject to the relevant environmental assessment requirements including AA under the Habitats Directive. The fact that proposals for land use designation and/or proposal for the location for individual projects will be formulated in more detail in the context of these lower tier plans ensures that a meaningful appropriate assessment can be carried out at that time.

Furthermore, the RSES offers support for a number of inter-related plan and programmes which have already undergone AA including development of the necessary mitigation to avoid adverse effects on the integrity of European sites. This mitigation is implicit in support for these other plans and strategies which are not administered by EMRA.

Having regard to the reasons outlined above, it can be concluded that the RSES would not adversely affect the integrity of a European site (whether individually or in combination with other plans or projects).

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## **APPENDIX A**

### **Summary of Statutory Consultation Responses (Prior to Draft RSES)**

Statutory Consultee	Summary of Issues Raised
<p><b>EPA</b></p> <p><b>General</b></p> <p><i>Also attached are to the Submission:</i></p> <p><i>1. NPF Issues and Choices and SEA Scoping (31<sup>st</sup> Mar 2017) and 2. Draft NPF and associated SEA ER (10<sup>th</sup> Nov 2017)</i></p>	<p><b>General Comments</b></p> <ul style="list-style-type: none"> <li>▪ EPA welcomes the common approach to the SEA process being adopted for all 3 RSEs and welcome participation in workshop.</li> <li>▪ Merit in considering adopting a similar standardised approach in preparing the Strategies.</li> <li>▪ The RSES and the SEA should consider (and make a commitment to) the relevant aspects of the 7 Key Actions of <i>Ireland's Environment – An Assessment 2016</i> (SoER) which are linked to the 17 UN's Sustainable Development Goals. Suggest inclusion of these goals in the RSES.</li> <li>▪ <i>Draft River Basin Management Plan and Cleaning our Air – A National Clean Air Strategy for Ireland</i> (currently being prepared) should be reflected in the environmental commitments in the RSES.</li> <li>▪ Flood Risk Management Plans currently being finalised should feed in to the RSES.</li> <li>▪ Aligning the implementation and governance aspects of the RSES with the approach to governance and implementation outlined in NPF.</li> <li>▪ Considering support for the development of integrated and robust planning enforcement and cooperation mechanisms in association with the DHPLG, relevant Government Departments, and the proposed Office of the Planning Regulator, other Regional Assemblies and local authorities.</li> <li>▪ The RSES has significant potential to contribute to support Ireland's ambition to become a carbon-neutral, climate-resilient and sustainably competitive society.</li> <li>▪ A commitment to preparing an RSES Implementation Programme alongside the RSES should be considered. This could potentially set out key responsibilities (including lead /partner Departments/Authorities etc.), priorities and where appropriate, timescales, alongside each of the objectives/ commitments in the RSES.</li> <li>▪ Refer to EPA SEA Guidance and information sources in carrying out SEA for consideration.</li> </ul>
<p><b>EPA</b></p> <p><b>Appendix I - Comments on the Issues Paper</b></p>	<p><b>Appendix I - Comments on the RSES Issues Paper (General)</b></p> <ul style="list-style-type: none"> <li>▪ Suggest having regard to key national environmental commitments.</li> <li>▪ <i>With regards the Issues Paper, more detailed responses will be provided as supplementary information to this submission. This will be based on the Technical Working Group Workshops and the detailed Technical Reports provided.</i></li> </ul> <p><b>Appendix I - Comments on the RSES Issues Paper (Response to Questions)</b></p> <ul style="list-style-type: none"> <li>▪ In relation to 'Our Rural Areas' list a number of plans and strategies for consideration.</li> <li>▪ EPA annual reports on water quality, drinking water and wastewater detail the status of infrastructure and should be reviewed to determine the areas needing remediation / increased capacity so as to meet population growth and economic development.</li> <li>▪ Irish Water's Tier I and Tier II Plans (Water Services Strategic Plan, Capital Investment Plan, Wastewater sludge management plan, Lead in Drinking Water Mitigation Plan and their National Water Resources Plan should be reviewed with regards to identifying water treatment infrastructure requirements and investment prioritisation are proposed. Also suggest referring to EPA's <i>Ireland's Environment - An Assessment 2016, our State of the Environment Report</i>.</li> </ul>

Statutory Consultee	Summary of Issues Raised
	<ul style="list-style-type: none"> <li>▪ Should promote integration of climate related plans at county level (as listed). Merit in the Regional Authority convening a workshop to see how the various sectors within the region can implement and monitor implementation of the measures and policies required to reduce greenhouse gas emissions.</li> <li>▪ DCCAIE are considering the preparation of an on-line portal to serve as a database of information on climate policies and measures that can be used for Ireland’s EU and UNFCCC reporting purposes.</li> <li>▪ In relation to the bio-economy sector, areas of competing land use should be identified early in the process particularly if those areas are marked for expansion or development of bio economy related developments/land uses. A commitment to the bio-energy plan should be given.</li> <li>▪ In relation to marine and coastal areas a number of plans and strategies should be consulted including draft National River Basin Management Plan for Ireland etc. (as listed).</li> <li>▪ In relation to regional measures which would ensure the monitoring and implementation of the objectives/policies of the NPF and the RSES there would be merit in considering a database of the various national policy objectives in the NPF and include the related policies/objectives for the region required to advance these national objectives.</li> <li>▪ A commitment should be included in the RSES for reporting on the ongoing environmental performance of the RSES. This should be published alongside a report of RSES implementation.</li> </ul> <p><b>Guidance for Integration of Environmental Considerations:</b> separate document provided listing key significant environmental aspects to consider.</p>
<p>EPA Submission</p> <p><b>Appendix II – Comments on the Scoping Report</b></p>	<p><b>Appendix II – Comments on the Scoping Report</b></p> <p><i>5.3.1 – Population and Human Health</i></p> <ul style="list-style-type: none"> <li>▪ There is also merit from a population perspective to include a specific reference to the <i>National Planning Framework</i>.</li> </ul> <p><i>5.3.2 – Biodiversity, Flora and Fauna</i></p> <ul style="list-style-type: none"> <li>▪ In relation to the Opportunities, bullet 2 “<i>More Coherent protection and enhancement of biodiversity as a whole on a regional and local level</i>”, could also consider including a reference to ‘monitoring’ and ‘management’ also. Could also amend this bullet to “<i>Support national level policies at a regional level to protect and enhance natural heritage assets</i>”.</li> <li>▪ Opportunities Bullet 7 could also be amended to recognise the opportunity to establish a coordinated regional approach to habitat mapping, ecosystem services and river basin catchment management.</li> </ul> <p><i>5.3.4 – Water</i></p> <ul style="list-style-type: none"> <li>▪ In relation to Opportunities for the ‘Water’ topic, the wording of bullet 2 should be amended ‘addressing its impacts’ is vague in detail.</li> <li>▪ Under ‘Challenges’, additional challenges could include: <ul style="list-style-type: none"> <li>○ ensuring leisure activities do no adversely impact on the aquatic environment</li> </ul> </li> </ul>

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	<ul style="list-style-type: none"> <li>○ dredging and dumping at sea activities should also be considered here</li> </ul> <p><i>Drinking Water</i></p> <ul style="list-style-type: none"> <li>▪ Remedial Action List and the Priority Areas (EPA) set out deficiencies for drinking water and wastewater. These priority areas should be taken into consideration in the RSES and the SEA making process.</li> </ul> <p><i>Waste Water</i></p> <ul style="list-style-type: none"> <li>▪ Consideration in the RSES and the associated environmental assessments of the following:</li> <li>▪ An assessment carried out by Irish Water on wastewater indicates that many plants are not capable of taking additional capacity as they are not meeting the discharge conditions and this situation will not change in many of them in the near future (i.e. by 2021). If additional development occurs in these areas, it is likely to push the discharge over the licence limits and therefore potentially impact on water quality.</li> <li>▪ EPA identified 148 urban areas where improvements in the collection and treatment of waste water are necessary to resolve these six priority issues. The 148 areas are shown on the map at <a href="https://gis.epa.ie/EPAMaps/SewageTreatment">https://gis.epa.ie/EPAMaps/SewageTreatment</a>.</li> <li>▪ The European Commission is taking Ireland to the Court of Justice of the European Union because of the failure to comply with the requirements of the Urban Waste Water Treatment Directive. It is essential that Ireland improves waste water treatment at non-compliant areas, to ensure that waste water is treated to the required standards.</li> <li>▪ A lack of treatment capacity may constrain development in some urban areas, until such time as discharges from these areas meet the necessary environmental standards.</li> <li>▪ Compliance with the requirements of Waste Water Discharge Authorisations is the key to reducing the environment impact of waste water on the receiving environment.</li> </ul> <p><i>5.3.5 Air Quality</i></p> <ul style="list-style-type: none"> <li>▪ Amending Opportunity Bullet 4 for clarity “Encourage modal shift away from private vehicular transport to more sustainable options, especially in towns and cities”;</li> <li>▪ Under ‘Challenges’, an additional challenge could relate to ‘emissions from industry’ within the region.</li> </ul> <p><i>Road Transport</i></p> <ul style="list-style-type: none"> <li>▪ Note road transport is highly fossil fuel dependant which is a key challenge to maintain good air quality. Identifies the need to promote a reduction in travel demands, increase alternatives to private car and improvements in motorised transport and need to promote incentives to move to electric vehicles. Recommend inclusion of commitment to reduce transport related emissions.</li> </ul> <p><i>Noise</i></p> <ul style="list-style-type: none"> <li>▪ Available Noise Action Plans should be considered and reviewed as required, to reflect the Plan period and associated development proposals.</li> <li>▪ Consideration should be given to protect, where relevant, any designated quiet areas in open country. Quiet Areas are defined as “an</li> </ul>

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	<p>area in open country, substantially unaffected by anthropogenic noise.”</p> <ul style="list-style-type: none"> <li>▪ Useful for the RSES to acknowledge and support the need for a National-level Noise Policy / Strategy.</li> </ul> <p>5.3.6 Climatic Factors</p> <ul style="list-style-type: none"> <li>▪ The relevant transport-related actions and measures in the <i>National Mitigation Plan</i> (DCCAE, 2017) should be considered and addressed as appropriate in the RSES.</li> <li>▪ Note obligation to meet 10% transport energy from renewable sources by 2020 and NPF target to reduce carbon dioxide emissions which should be addressed in RSES.</li> <li>▪ The RSES should consider the impacts on local and regional exposure and vulnerability to weather and climate events, and projected changes to these due to climate change.</li> <li>▪ Traffic flows, preferred commuter transport mode and associated impact on traffic volume/congestion is strongly influenced by weather conditions, and not just weather extremes, which should also be considered.</li> <li>▪ The inclusion of commitment to preparation of a Regional Climate Adaptation Strategy should be considered for inclusion in the RSES.</li> </ul> <p>5.3.7 Material Assets</p> <ul style="list-style-type: none"> <li>▪ The first Opportunity bullet could include a reference to modern communications infrastructure.</li> <li>▪ Refer to national policy on alternative fuels.</li> <li>▪ <i>Bullet 1 - Plan for settlement to be aligned with required transport, water, energy infrastructure.</i></li> </ul> <p>5.3.9 Landscape</p> <ul style="list-style-type: none"> <li>▪ Opportunity could also include coordination of protection of sensitive and high landscape character areas in inter-county and inter regional context.</li> <li>▪ Coordinated regional approach should be adopted to identifying and protection, regional LCA's opportunity.</li> <li>▪ A commitment should be included in the RSES to the preparation Regional Landscape Character Assessment (RLCA).</li> <li>▪ SEA Environmental Objectives should be set in the context of the environmental objectives set in the NPF to ensure consistency, while also expanding on the regional specific variation and issues/challenges that exist.</li> </ul> <p><i>Table 7.1 – Draft SEA Environmental Objectives</i></p> <ul style="list-style-type: none"> <li>▪ Under the 'Water' topic, a sub-objective should be included for ensuring the Floods Directive and National CFRAMS programme is implemented, and supporting implementation of relevant actions and measures set out in the final FRMP's once adopted.</li> <li>▪ Effecting Coastal Zone Management and associated implications for land use zoning should also be considered for inclusion.</li> <li>▪ Noise considerations should be considered specifically.</li> <li>▪ In relation to 'Climate', suggest to support and facilitate local authority climatic adaption strategies.</li> </ul>

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	<ul style="list-style-type: none"> <li>▪ Under 'Landscape', aspects such as protecting streetscapes, seascapes of recognised quality and enhancing provision of and access to green space in urban areas.</li> <li>▪ <i>In relation to Material Assets (Waste):-</i> <ul style="list-style-type: none"> <li>○ Opportunity to support RWMP recommendations to establish buffer areas between industrial/commercial areas and residential areas.</li> <li>○ The RSES should also take into consideration the need to provide for adequate separation between sensitive receptors and industrial activities in order to minimise the potential for nuisance issues.</li> </ul> </li> </ul> <p><i>Section 7.3 Outline of Alternatives</i></p> <ul style="list-style-type: none"> <li>▪ Merit in considering a tiered approach to the consideration of alternatives in the SEA for the RSES, to align with the new national planning hierarchy.</li> <li>▪ Suggest the convening of alternatives workshops would be useful with key stakeholders participating to inform the development, consideration and environmental appraisal of the RSES options and combinations of RSES options.</li> </ul>
<p><b>DCHG – Comments on SEA Scoping Report</b></p>	<ul style="list-style-type: none"> <li>▪ The EPA's Integrated Biodiversity Impact Assessment Practitioner's Manual is of particular relevance for integration of biodiversity issues</li> <li>▪ The scope of the SEA should include data gathering, analysis and assessment of the implications for each of the elements listed, paying particular attention to the likely and realistic effects of the plan.</li> <li>▪ List of data sources provided, including GIS data; list of important NPWs publications provided; List of relevant SEA Guidance documents provided.</li> <li>▪ Where a plan requires an appropriate assessment, any changes or alterations of that plan (after the draft plan stage) should be 'assessed' rather than 'screened'.</li> <li>▪ Strategic Environmental Objectives should be included for all nature conservation sites (not only European sites), protected species, and ecological corridors and stepping stones as outlined in this submission (Appendix 1)</li> <li>▪ Although MASP is to operate at a strategic level it shall also take into consideration various environmental constraints and challenges in the wider metropolitan areas including but not only European sites and other nature conservation sites. All such land use planning issues have the potential to impact on biodiversity and designated sites and these issues need to be considered in the SEA.</li> <li>▪ In addition to benefits of heritage and landscape for tourism, employment and economic growth, the strategy should also acknowledge the high quality of the environment associated with nature conservation sites, as well as their international scientific importance and educational values.</li> <li>▪ Interrelationships between BFF and other topics should be assessed and identify significant effects.</li> <li>▪ BFF section of SEA should be prepared by or in conjunction with suitably qualified ecologist and other specialists and should have regard for EPA's Integrated Biodiversity Impact Assessment best practice guidance.</li> <li>▪ SEOs should refer to international and national environmental objectives. Refer to the National Biodiversity Action Plan 2017- 2021 which</li> </ul>

Statutory Consultee	Summary of Issues Raised
	<p>seeks to ‘mainstream biodiversity into decision making’ and move towards ‘no net loss to biodiversity’.</p> <ul style="list-style-type: none"> <li>▪ Welcome that the biodiversity flora and fauna SEO also covers protected species. Such species, which can be protected under national and/or European legislation, can occur anywhere, including outside of designated sites.</li> <li>▪ While it may be considered efficient to use monitoring programmes that are already in place and run by other authorities, it is important to establish that these are in fact designed in such a way that they will identify the effects anticipated from the particular strategy in question. As such, it is important to understand the objectives, methodologies, parameters, assumptions, etc. of any existing monitoring programme that is proposed to be used in such a way.</li> <li>▪ It is advisable to set out clearly where responsibilities for monitoring programmes lie, and their frequency and reporting/publication arrangements, as well as the procedures that will be put in place to ensure that there is a response mechanism to any unforeseen or undesirable negative effects/results, and that remedial action will be taken, if necessary.</li> <li>▪ Refers to the use of Irish SEA and AA Guidance documentation for use and various ecological data references for use as key sources as part of the process (pages 4 and 5).</li> <li>▪ Appropriate assessment guidance is included in Appendix 2. Where the NIR/NIS identifies that plan-level mitigation is necessary this must amend and be reflected in the content and objectives of the final strategy wherever necessary. Specific and repeated cross referencing to mitigation measures in other sections or reports may be used but should be done clearly, consistently and unambiguously. Particular attention should be paid to environmental monitoring of previous or related plans where this is producing ‘evidence-based’ monitoring results.</li> <li>▪ Public authorities are obliged, when exercising their functions, to take appropriate steps to avoid in European sites the deterioration of natural habitats and the habitats of species, as well as disturbance of species for which a site has been designated insofar as this disturbance could be significant in relation to the objectives of the Habitats Directive. Advised to incorporate such obligation into strategy. Suggest inclusion of the development of systems that will monitor and ensure the compliance of “downstream” projects with these obligations, as well as any internal mechanisms that may be needed to ensure compliance.</li> </ul> <p><b>Integration of Biodiversity, Flora and Fauna, and associated obligations into the Strategy:</b> General provisions described</p> <p><b>Key requirements and clarifications concerning Natura Impact Statements:</b> General provisions described</p> <p><b>Appropriate Assessment Guidance:</b> General provisions described and list of jurisprudence provided.</p> <p><b>Appendix 1: Key elements of biodiversity of relevance to SEA:</b> A list of the key elements of biodiversity, flora and fauna of relevance to SEA is provided.</p> <p><b>Appendix 2: Overview of 2013 Article 17 and Article 12 summary data:</b> Presents findings of report on status of Ireland’s Habitats and Species Report which refers to the status of Ireland’s birds, and reports on the implementation of the Habitats and Birds Directives. It also refers to the Department’s Prioritised Action Framework which requires consideration as part of the environmental assessments.</p>
<p><b>DCHG - Comments on the Issues Paper</b></p>	<ul style="list-style-type: none"> <li>▪ <b>Legislation:</b> The Strategy and SEA should take account of the Biodiversity Convention, the Ramsar Convention, the EC Habitats Directive (Council Directive 92/43/EEC), the EC Birds Directive (Directive 2009/147 EC), the Wildlife Acts of 1976 to 2012, and the European</li> </ul>

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	<p>Communities (Birds and Natural Habitats) Regulations 2011 to 2015. The Regional Assembly should also refer to the relevant circular letters which have been circulated to Local Authorities.</p> <ul style="list-style-type: none"> <li>▪ <b>Designated Sites:</b> The Strategy should include a natural heritage section and refer to all designated sites within or adjoining the Strategy area, which should be listed and mapped.</li> <li>▪ <b>Protected Species:</b> The proposed Strategy should recognise that protected species also occur outside designated sites and should ensure the protection of such species.</li> <li>▪ <b>Biodiversity:</b> The Strategy should be developed to integrate biodiversity considerations in a positive, proactive and precautionary way, and this should be reflected in the text and content of the plan, including its aims, objectives and policies, as well as in maps.</li> <li>▪ <b>Article 10 of the Habitats Directive:</b> the Strategy should include provisions to encourage the management of features of the landscape which are of major importance to wild fauna and flora.</li> <li>▪ <b>Pollinators:</b> It is recommended that the natural heritage section of the Strategy should also contain a policy on implementing the All Ireland Pollinator Plan 2015-2020.</li> <li>▪ <b>Implications of the Strategy for Biodiversity, Flora and Fauna:</b> Plans and programmes may significantly affect nature conservation, biodiversity, flora and fauna in a number of ways, depending on the measures to be included within the Strategy and the methods of implementation.</li> <li>▪ <b>Cumulative Impacts:</b> When drafting the Strategy, cumulative and in combination effects with existing plans and projects and with known upcoming plans and projects, should be assessed.</li> </ul> <p>Eastern &amp; Midland Region noted to have many areas of nature conservation importance, both designated and undesignated, ecological corridors and stepping stones, and biodiversity in general. The following issues should be considered when drafting the Strategy and carrying out the assessment:</p> <ul style="list-style-type: none"> <li>▪ <b>Land Use Planning:</b> No areas to be identified or targeted for future development or changes in land use without the availability of basic constraints map.</li> <li>▪ <b>Water Services:</b> The provision of water services has the potential to impact on the natural heritage. Such impacts include those on water quality and quantity as well as physical disturbance of habitats and species and habitat loss. Noted that some major projects are currently underway in the Region including plans to pipe water from the River Shannon, for a new waste water treatment plant (WWTP) in north County Dublin, and the upgrading of the Poolbeg WWTP. Consultation is ongoing with DCHG regarding these current proposals</li> <li>▪ <b>Infrastructure:</b> Broadband/electricity/wind farms/solar farms require the laying of cables, underground or in some cases over ground and other ancillary infrastructure. Overhead cables can also pose a flight hazard to migrating birds and therefore need to be sensitively sited. Laying of cables has the potential to impact on habitats and species through habitat loss and disturbance.</li> <li>▪ <b>Roads and Rail:</b> Modifications to existing road and rail routes, and the building of any new routes, have potential to impact negatively on biodiversity. Any potential impacts of on-going or proposed road or rail projects should be considered. Key projects include proposed road projects in the Region and an aspiration for the future twin tracking of the rail line both north and south from Dublin with the DART</li> </ul>



Statutory Consultee	Summary of Issues Raised
	<p>extension involving electrification of part of it. As the rail line runs adjacent to, and in some cases through, European sites, such projects will require appropriate assessment. In addition to loss of annexed habitat there is potential for bird collisions with overhead cables for the DART where it crosses estuaries such as at Malahide and Rogerstown.</p> <ul style="list-style-type: none"> <li>▪ <b>Ports and Airports:</b> Any modifications or expansion of ports and airports may impact on biodiversity and designated sites, either directly or indirectly. Projects in the Region which the DCHG has been consulted about include a second runway proposal for Dublin Airport and the implementation of Dublin Port Masterplan</li> <li>▪ <b>Climate Change, Flooding and CFRAM:</b> Flood barriers such as walls can impact on the structure and function of rivers, including river SACs, and can lead to changes in the patterns of erosion and deposition and the loss of flood plains and associated habitats.</li> <li>▪ <b>Coastal Protection:</b> Coastal flood protection measures can lead to changes in the erosion and deposition and although considered a natural process and could have implications on sites some distance away should be considered in the Strategy.</li> <li>▪ <b>Air and Water Quality Including NOx Emissions:</b> Air quality including emissions from vehicles (NOx) and farms (ammonia) can lead to atmospheric nitrogen deposition resulting in changes in flora and vegetation types.</li> <li>▪ <b>Tourism and Greenways/Cycleways, Amenity Parks:</b> The Strategy should address the issue of creating new amenity parks and not rely on using existing natural biodiversity rich areas of countryside and designated sites for amenity purposes. The Strategy should ensure it is compliant with the National Greenway Strategy currently in preparation. Potential impacts of on-going or proposed greenways and similar developments should be considered including the potential for cumulative impacts at both a Regional and a National level including habitat loss and disturbance.</li> <li>▪ There are many greenways and similar developments or development proposals in the Region, including the Barrow Blueway, the Royal and Grand Canal Greenways, the S 2 S and the Dodder Greenway from source to sea. These all have the potential to impact on European sites habitats and species including habits and species listed on the annexes of the Birds and Habitats Directives</li> <li>▪ <b>Green Infrastructure:</b> Green Infrastructure should involve creating new green areas in existing built infrastructure and creating a green network. It should not be confused and be interpreted as putting built infrastructure into green areas. Although there is an inter-relationship between natural heritage and green infrastructure</li> <li>▪ Department recommends that the Strategy should have separate natural heritage/biodiversity and green infrastructure chapters.</li> <li>▪ Link provided to EU Commission’s document on Green Infrastructure (2013)</li> <li>▪ It is recommended that the natural heritage section of the Strategy should also contain a policy on implementing the All Ireland Pollinator Plan 2015-2020</li> <li>▪ When drafting the Strategy, cumulative and in combination effects with existing plans and projects and with known upcoming plans and projects, should be assessed</li> </ul>
Inland Fisheries Ireland	<ul style="list-style-type: none"> <li>▪ RSES must address not only water quality but also include the protection of the physical environment, hydrological processes and biodiversity. Protection of the aquatic environment must imply a greater commitment than merely to prevent fish mortality or protect water quality. Consideration should be given to potential significant impacts on:</li> </ul>

Statutory Consultee	Summary of Issues Raised
	<ul style="list-style-type: none"> <li>▪ Water quality</li> <li>▪ Aquatic and associated riparian habitats</li> <li>▪ Biological Diversity</li> <li>▪ Ecosystem structure and functioning</li> <li>▪ Fish spawning and nursery areas</li> <li>▪ Surface water hydrology</li> <li>▪ Passage of migratory fish</li> <li>▪ Areas of natural heritage importance including geological heritage sites</li> <li>▪ Sport and commercial fishing and angling</li> <li>▪ Amenity and recreational areas</li> </ul> <p>RSES should:</p> <ul style="list-style-type: none"> <li>▪ be consistent with WFD and RBMP</li> <li>▪ Preclude development where infrastructure is under-capacity.</li> <li>▪ Support river corridor preservation.</li> <li>▪ Promote integration of natural watercourses in development proposals and encourage local participation and consultation with IFI.</li> <li>▪ Support National Strategy for Angling Development</li> <li>▪ Have regard to IFI Guidelines.</li> </ul> <ul style="list-style-type: none"> <li>▪ <b>Protect aquatic environment:</b> RSES....protection of the quality of the aquatic environment...water quality...include the protection of the physical environment, hydrological processes and biodiversity <ul style="list-style-type: none"> <li>▪ Maintenance of habitat is a particularly important objective of fisheries authorities, protection of the food chain</li> <li>▪ WFD - Protection of aquatic ecosystems requires that river systems be protected on a catchment basis and protection and maintenance of physical habitat and hydrological processes and regimes.</li> </ul> </li> <li>▪ <b>Water Quality &amp; Municipal WWTP Infrastructure:</b> Sufficient treatment capacity must be available both within the receiving sewerage systems locally and downstream of waste water treatment plants over the full duration of the plan in order that the ecological integrity of the ultimate receiving waters is protected.</li> <li>▪ Capacity must be coupled with an effective sludge management strategy/policy.</li> <li>▪ Build a comprehensive and robust assessment of both local infrastructural needs and IW/LA capacity to meet those needs into the plan the risk of associated significant environmental impacts which may result from local development.</li> <li>▪ <b>Water Quality and Integrated Constructed Wetlands:</b> precautionary approach, from a policy perspective; required by WFD to</li> </ul>

Statutory Consultee	Summary of Issues Raised
	<p>protect/improve ecological status and water quality of all waters.</p> <ul style="list-style-type: none"> <li>▪ <b>Aquatic Habitat Protection</b> (incl. riparian habitat): essential to maintain watercourses in an environmentally and aesthetically sensitive manner; IFI provide guidance on site specific measures to protect riparian and aquatic habitats; Opposed to development on floodplain lands.</li> <li>▪ <b>Invasive Species:</b> policies aimed at ensuring that developments do not spread invasive species; prohibit invasive species from inclusion in landscape design proposals... require use of native, local stock</li> <li>▪ <b>River Crossing Structures:</b> policy for use of clear span structures where possible on fisheries waters.</li> <li>▪ <b>Stream Fragmentation:</b> Refers to the Adaptive Management of Barriers in European Rivers ‘AMBER Project’ raising awareness of stream fragmentation and need for innovative solutions encouraging connectivity.</li> <li>▪ <b>Water Conservation:</b> Reduce water use, enhance water supply reliability, restore ecosystems, and respond to climate change and changing demographics.</li> <li>▪ Best practice, rainwater harvesting, regulation of agricultural abstraction and SUDS.</li> <li>▪ <b>Climate Change:</b> Native fish vulnerable to climate change and requires mitigation incl. planting of trees. Flooding and high flows causing nutrient enrichment and fine sediment.</li> <li>▪ <b>Management Policies: Seek inclusion if river management policies in the form of:-</b> <ul style="list-style-type: none"> <li>▪ River Corridor Management Areas protecting against development in urban areas.</li> <li>▪ Special Preservation Orders provided for specific habitats in need of protection e.g. an Aquatic Protection Order.</li> <li>▪ Special Amenity Areas, identified for their potential as Linear Parklands along waterways.</li> </ul> </li> </ul> <p><b>National Strategy for Angling Development:</b> Seek support for this strategy.</p>
NIEA – DAERA	<p>The Environmental Report should consider if there will be any transboundary effects.</p> <p>Provide the following links:</p> <ul style="list-style-type: none"> <li>• Details of the features of designated sites both terrestrial and marine are available at <a href="https://www.daera-ni.gov.uk/topics/biodiversity-land-and-landscapes/protected-areas">https://www.daera-ni.gov.uk/topics/biodiversity-land-and-landscapes/protected-areas</a>.</li> <li>• An Air Pollution Information System is available at <a href="http://www.apis.ac.uk/srcl">http://www.apis.ac.uk/srcl</a>.</li> </ul> <p>‘Site Relevant Critical Loads’ tool provides critical loads for acidity and nitrogen for designated features within every SAC, SPA or ASSI in the UK. Critical loads are assigned to each sensitive feature for either nutrient nitrogen or acidity. In addition, deposition data for nitrogen and sulphur at each site are provided, apportioned to major sources, and include transboundary sources.</p>

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 Eastern & Midland Regional Spatial and Economic Strategy, SEA Environmental Report and the Natura Impact Report.

## **APPENDIX B**

### **Special Areas of Conservation (SACs) Eastern & Midland Region**

SAC Site Name	Site Code
Killyconny Bog (Cloghbally) SAC	000006
Baldoyle Bay SAC	000199
Howth Head SAC	000202
Lambay Island SAC	000204
Malahide Estuary SAC	000205
North Dublin Bay SAC	000206
Rogerstown Estuary SAC	000208
South Dublin Bay SAC	000210
River Shannon Callows SAC	000216
Ballynafagh Bog SAC	000391
Pollardstown Fen SAC	000396
Red Bog, Kildare SAC	000397
Slieve Bloom Mountains SAC	000412
Lough Ree SAC	000440
Fortwilliam Turlough SAC	000448
Carlingford Mountain SAC	000453
Dundalk Bay SAC	000455
All Saints Bog And Esker SAC	000566
Charleville Wood SAC	000571
Clara Bog SAC	000572
Ferbane Bog SAC	000575
Fin Lough (Offaly) SAC	000576
Mongan Bog SAC	000580
Moyclare Bog SAC	000581
Raheenmore Bog SAC	000582
Sharavogue Bog SAC	000585
Garriskil Bog SAC	000679
Lough Ennell SAC	000685
Lough Owel SAC	000688
Scragh Bog SAC	000692
Ballyman Glen SAC	000713
Bray Head SAC	000714
Carriggower Bog SAC	000716
Deputy's Pass Nature Reserve SAC	000717
Glen Of The Downs SAC	000719
Knocksink Wood SAC	000725
Buckronev-Brittis Dunes And Fen SAC	000729
Vale Of Clara (Rathdrum Wood) SAC	000733
Slaney River Valley SAC	000781
Cullahill Mountain SAC	000831

SAC Site Name	Site Code
Clonaslee Eskers And Derry Bog SAC	000859
Lisbigney Bog SAC	000869
Ridge Road, SW of Rapemills SAC	000919
The Long Derries, Edenderry SAC	000925
Glenasmole Valley SAC	001209
Ballynafagh Lake SAC	001387
Rye Water Valley/Cartron SAC	001398
Clogher Head SAC	001459
Kilpatrick Sandhills SAC	001742
Holdenstown Bog SAC	001757
Magherabeg Dunes SAC	001766
Pilgrim's Road Esker SAC	001776
White Lough, Ben Loughs And Lough Doo SAC	001810
Lough Forbes Complex SAC	001818
Split Hills And Long Hill Esker SAC	001831
Boyne Coast And Estuary SAC	001957
Lough Bane And Lough Glass SAC	002120
Lough Lene SAC	002121
Wicklow Mountains SAC	002122
Mountmellick SAC	002141
Lisduff Fen SAC	002147
River Barrow And River Nore SAC	002162
Ireland's Eye SAC	002193
Derragh Bog SAC	002201
Mount Jessop Bog SAC	002202
Girley (Drewstown) Bog SAC	002203
Wooddown Bog SAC	002205
Island Fen SAC	002236
The Murrough Wetlands SAC	002249
Ballyprior Grassland SAC	002256
Wicklow Reef SAC	002274
River Boyne And River Blackwater SAC	002299
Carlingford Shore SAC	002306
Ballymore Fen SAC	002313
Mouds Bog SAC	002331
Coolrain Bog SAC	002332
Knockacoller Bog SAC	002333
Carn Park Bog SAC	002336
Crosswood Bog SAC	002337
Moneybeg And Clareisland Bogs SAC	002340
Ardagullion Bog SAC	002341
Mount Hevey Bog SAC	002342

<b>SAC Site Name</b>	<b>Site Code</b>
Brown Bog SAC	002346
Clooneen Bog SAC	002348
Rockabill to Dalkey Island SAC	003000
Codling Fault Zone SAC	003015

## **APPENDIX C**

### **Special Protection Areas (SPAs) Eastern & Midland Region**



SPA Site Name	Site Code
Puffin Island SPA	004003
Cliffs of Moher SPA	004005
Basket Islands SPA	004008
Lady's Island Lake SPA	004009
The Raven SPA	004019
Ballyteigue Burrow SPA	004020
Old Head of Kinsale SPA	004021
Ballycotton Bay SPA	004022
Ballymacoda Bay SPA	004023
Tramore Back Strand SPA	004027
Blackwater Estuary SPA	004028
Castlemaine Harbour SPA	004029
Cork Harbour SPA	004030
Inner Galway Bay SPA	004031
Dungarvan Harbour SPA	004032
Bannow Bay SPA	004033
Killarney National Park SPA	004038
Ballyallia Lough SPA	004041
Lough Derg (Shannon) SPA	004058
The Bull and The Cow Rocks SPA	004066
Wexford Harbour and Slobbs SPA	004076
River Shannon and River Fergus Estuaries SPA	004077
Clonakilty Bay SPA	004081
River Little Brosna Callows SPA	004086
Tacumshin Lake SPA	004092
Blackwater Callows SPA	004094
Kilcolman Bog SPA	004095
Middle Shannon Callows SPA	004096
Eirk Bog SPA	004108
The Gearagh SPA	004109
Illaunonearaun SPA	004114
Keeragh Islands SPA	004118
Loop Head SPA	004119
Sovereign Islands SPA	004124
Magharee Islands SPA	004125
Cahore Marshes SPA	004143
Dingle Peninsula SPA	004153
Iveragh Peninsula SPA	004154
Beara Peninsula SPA	004155
Sheep's Head to Toe Head SPA	004156
Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA	004161

SPA Site Name	Site Code
Mullaghanish to Musheramore Mountains SPA	004162
Slievefelim to Silvermines Mountains SPA	004165
Slieve Aughty Mountains SPA	004168
Deenish Island and Scariff Island SPA	004175
Mid-Clare Coast SPA	004182
Tralee Bay Complex SPA	004188
Kerry Head SPA	004189
Galley Head to Duneen Point SPA	004190
Seven Heads SPA	004191
Helvick Head to Ballyquin SPA	004192
Mid-Waterford Coast SPA	004193
Courtmacsherry Bay SPA	004219
Corofin Wetlands SPA	004220
River Nore SPA	004233

## **APPENDIX D**

### **Special Areas of Conservation (SACs) Northern Ireland**

<b>Special Area of Conservation (SAC)</b>	<b>Site Code</b>	<b>Special Area of Conservation (SAC)</b>	<b>Site Code</b>
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
Largalunny	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**

RPS

# Eastern and Midland Regional Assembly (EMRA)

## Appropriate Assessment Screening Report

22 May 2018





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# 1 INTRODUCTION

The Eastern and Midland Regional Assembly (EMRA) is currently preparing a Regional Spatial and Economic Strategy (RSES) for the region. The main purpose of the RSES is to support the implementation of the National Planning Framework (NPF), and the economic policies and objectives of the Government by providing a long-term strategic planning and economic framework for the development of the three regions: Eastern and Midland; Southern; and Northern and Western. The Eastern and Midland Region RSES (hereafter referred to as EM RSES) will be a strategic plan which identifies assets, opportunities and pressures for this region and will provide appropriate policy, objective and target responses. It will put policies and recommendations in place that will better manage regional planning and economic development throughout the region.

The purpose of this screening document is to provide information on the potential for the EM RSES to give rise to likely significant effects on any European Site and to support a screening decision by the EMRA on whether full Appropriate Assessment, including the preparation of a Natura Impact Report (NIR) will be required in accordance with EU and national legislation.

## 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.

Article 6 of the Directive obliges member states to undertake an ‘appropriate assessment’ (AA) for any plan or project, *individually or in combination with other plans or projects is likely to have a significant effect on any European Site*. The outcome of such AA fundamentally affects the decisions that may lawfully be made by competent national authorities in relation to the approval of plans or projects.

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) states:

*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 principally through Part XAB of the Planning and Development Act 2000 (as amended) in relation to land use planning; and also the European Communities (Birds and Natural Habitats) Regulations (S.I. No. 477/2011) legislation.

The Screening for the Appropriate Assessment is being undertaken by RPS on behalf of EMRA.

## 1.2 PURPOSE OF SCREENING FOR AA

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. The stages of AA screening are given in **Section 3.3** of this document.

## 1.3 OVERLAP WITH THE STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA)

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 EM RSES 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 early issues identification for the EM RSES.

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 EM RSES.

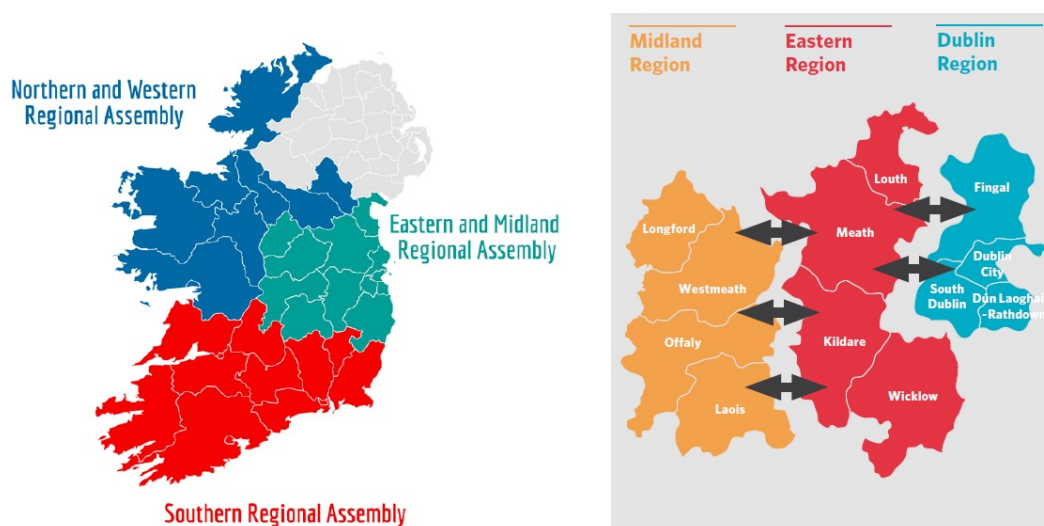
## 2 OVERVIEW OF THE RSES

### 2.1 BACKGROUND

Under the 2012 Government’s policy paper “*Putting People First*”, and the Local Government Reform Act 2014, the former two Regional Assemblies (RAs) and former eight Regional Authorities were reconfigured into three new RAs, namely the Eastern and Midland Regional Assembly (EMRA), the Southern Regional Assembly (SRA), and the Northern and Western Regional Assembly (NWRA). The main strategic planning functions of the RAs include the preparation, adoption and delivery of Regional Spatial and Economic Strategies (RSESs). These strategies must be consistent with the NPF and deliver its objectives at a regional level. **Figure 2.1** outlines the regional assembly areas.

The NPF replaces the National Spatial Strategy, first published in November 2002, and will form Ireland’s long-term strategy for the next 20 years which will set the groundwork for the spatial and economic development of Ireland. The NPF will lay the groundwork for a better quality of life for all and a basis for balanced and sustainable economic growth. It provides a focal point for spatial plans throughout the planning hierarchy, including the RSESs at the regional tier, and will assist in the achievement of more effective regional development. It will also coordinate 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 RSESs. **Figure 2.2** outlines Ireland’s planning hierarchy.

The current Regional Planning Guidelines (RPGs) have been a key aspect of the Government’s programme for spatial planning to date. New planning legislation under the Planning and Development Act 2000 (as amended) allows for the RSESs to replace the RPGs. The regional planning function will therefore be enhanced under the new RSESs through the inclusion of a significant economic strategy. The combined spatial and economic elements will establish a broad framework to allow for integrated local authority policy development and associated actions, outline the roles of government departments and other agencies, and to strengthen and clarify the role of local authorities in economic development and enterprise support/ promotion.



**Figure 2.1 - Regional Assemblies and the Eastern and Midland Region**

## 2.2 THE EASTERN AND MIDLAND REGION OVERVIEW

The Eastern and Midland Region was established in January 2015 by the Local Government Act 1991 (Regional Assemblies) (Establishment) Order 2014 (SI 573 of 2014). The region has an area of 14,463 km<sup>2</sup> covering nine counties and 12 local authorities, with a total of 2.3 million inhabitants. It is divided into the administrative Strategic Planning Areas of the Midland Region (Longford, Westmeath, Offaly and Laois), Eastern Region (Louth, Meath, Kildare and Wicklow) and Dublin Region (Fingal, Dublin City, South Dublin, Dun Laoghaire-Rathdown)<sup>1</sup>. The region contains the Wicklow Mountains National Park, 120 EU designated protected sites (82 SACs, 38 SPAs) and spans 20 catchments.

## 2.3 PURPOSE OF THE EASTERN AND MIDLAND RSES

One of the principle functions of the EM RSES will be to practically support and advance the delivery of the national policy objectives contained in the NPF. The EM RSES will bring forward the NPF in a manner which best reflects the challenges and opportunities of the region. It has been anticipated by the NPF that each of the three regional assemblies will begin to fill out the national policy objectives, in some cases giving them geographic or temporal context and in other cases elaborating on project concepts. The EM RSES will support the delivery of the NPF removing the top-down perception and replacing it with a shared responsibility and understanding. The Issues Paper for the EM RSES sets out its core functions, which includes:

- Placing strategic planning as its core function;
- Meeting the needs of the EMRA's citizens e.g. meeting the need to access employment opportunities, services, travel options and well-being;
- Taking account of national policy i.e. the NPF;
- Support, reflect and link economic policies/ government objectives with spatial planning objectives;
- Consider the qualities, population size, service offering and location of towns and cities in the region;
- Support balanced economic development building on the strengths of the region;
- Strengthen links between planning policy and economic trends; and
- Identifying important regional attributes to improve economic performance, the quality of the environment, and other assets/ amenities.

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<sup>1</sup> EMRA (2017) Regional Spatial & Economic Strategy Initial Public & Stakeholder Consultation Issues Paper. Retrieved: [http://emra.ie/dubh/wp-content/uploads/2017/11/EMRA\\_IssuesPaper\\_Nov17.pdf](http://emra.ie/dubh/wp-content/uploads/2017/11/EMRA_IssuesPaper_Nov17.pdf)

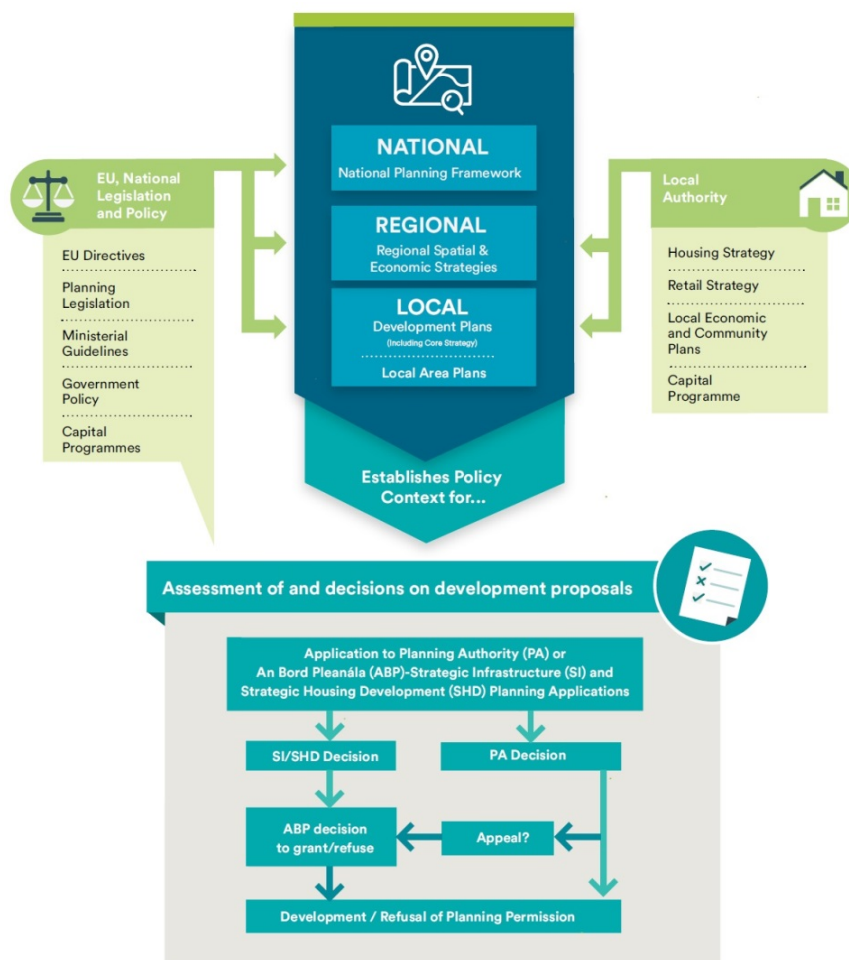


Figure 2.2 – Overview of Ireland's Planning System<sup>2</sup>

The NPF has also introduced a strategic focus on the five cities in Ireland and their metropolitan areas. Following direction from the Department of Housing, Planning and Local Government, Metropolitan Area Strategic Plans (MASPs) will be prepared for each of the five cities. In the case of the EM RSES, a MASP will be developed for Dublin. This MASP will be provided with statutory underpinning to act as a twelve-year strategic planning and investment framework for city metropolitan areas addressing high level and long term strategic development issues including:

- Physical development patterns and strategic growth areas.
- Strategic infrastructure, particularly in the transportation and water service area.
- Large scale regeneration and the location of housing and employment.
- Metropolitan scale amenities such as regional parks and walking and cycling networks.

It is intended that the Dublin MASP will align with and inform national level sectoral investment plans to guide and coordinate investment within the metropolitan area, coordinating land use planning and strategic infrastructure.

<sup>2</sup> DHPLG (September 2017) Ireland 2040 Our Plan – Draft National Planning Framework

## 3 ASSESSMENT METHODOLOGY

### 3.1 GUIDANCE DOCUMENTS ON APPROPRIATE ASSESSMENT

The AA requirements of Article 6 of the Habitats Directive 92/43/EEC 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<sup>3</sup>* (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.

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<sup>3</sup> 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 RSES.

## 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](http://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](http://www.osi.ie);
- CORINE (Co-ORDinated INformation on the Environment) data series was established by the European Community (EC) <http://www.epa.ie/soilandbiodiversity/soils/land/corine/>;
- Forest Cover Datasets  
<https://www.agriculture.gov.ie/forestservice/forestservicegeneralinformation/foreststatisticandmapping/forestcoverdatasets/>;
- National Parks and Wildlife Service online European Site information – [www.npws.ie](http://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](http://www.epa.ie);
- Geological Survey of Ireland geology, soils and hydrogeology – [www.gsi.ie](http://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](http://www.npws.ie/sites/default/files/general/PAF-IE-2014.pdf); and
- *Actions for Biodiversity 2011-2016: Irelands National Biodiversity Plan* (DAHG, 2011).<sup>4</sup>

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<sup>4</sup> 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](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 EM RSES, 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 zone of influence (Zoi) of the EM RSES will be determined based on the connectivity with the surrounding areas. Therefore, it can be said that in the first instance the Zoi is considered to include all European Sites within the Eastern and Midland Region (**Figure 4.1, Appendix A1 and A2**). Proposals within the EM RSES will involve collaboration and coordination with the other two regional assemblies and also Northern Ireland in terms of spatial planning issues, environmental management and provision of infrastructure. As such, all European sites within the other two regions and those in Northern Ireland have also been included (**Appendix B, C and D**).

Figures for European Sites falling completely within or partially within each region are presented in **Table 4.1**. The figures in each region include all sites which intersect with the administrative boundary. Therefore sites which straddle two regions have been included in both regional counts. National figures are presented for completeness in **Table 4.2**.

**Table 4.1 – Number of European Sites by Region, and Northern Ireland**

European Sites*	Eastern and Midland	Southern	Northern and Western	Northern Ireland**
SAC	86	144	217	59
SPA	39	55	80	18

\* NPWS data revision as of April 2018.

\*\* NIEA/JNCC data revision as of January 2018 (includes newly proposed/ candidate sites).

**Table 4.2 – European Sites Nationally**

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

\*NPWS data revision as of August 2017. Checked 26<sup>th</sup> March 2018

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

It is acknowledged that the number of European Sites designated, and their boundaries, are subject to change over time and must therefore be verified on an ongoing basis.

### 4.3 ASSESSMENT OF LIKELY EFFECTS

The main objectives of the EM RSES are to:

- Support the implementation of the emerging National Planning Framework (NPF) - Ireland 2040 Our Plan, and the economic policies and objectives of the Government;
- Provide a long-term strategic planning and economic framework for the development of the regions; and
- Address Employment, Retail, Housing, Transport, Water services, Energy and communications, Waste management, Education, health, sports and community facilities, Environment and heritage, Landscape, Sustainable development and climate change.<sup>5</sup>

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

<sup>5</sup> EMRA (2017) Regional Spatial & Economic Strategy Initial Public & Stakeholder Consultation Issues Paper. Retrieved: [http://emra.ie/dubh/wp-content/uploads/2017/11/EMRA\\_IssuesPaper\\_Nov17.pdf](http://emra.ie/dubh/wp-content/uploads/2017/11/EMRA_IssuesPaper_Nov17.pdf)

### 4.3.1 Conservation Objectives

Site-specific conservation objectives (SSCO) aim to define favourable conservation condition for a particular habitat or species at a Natura 2000 site. Maintaining habitats and species in a favourable conservation condition then contributes to the wider objective to maintain those most vulnerable habitats and species at favourable status throughout their range within the Natura 2000 network.

At an individual site level, SSCOs specify whether the objective is to maintain or to restore favourable conservation condition of the habitat or species, and they set out attributes and targets that define the objectives. It is the aim of the DCHG to produce SSCOs for all European sites in due course<sup>6</sup>. Qualifying interests (QI) and Special conservation Interests (SCIs) are annexed habitats and annexed species of community interest for which an SAC or SPA has been designated. The SSCOs 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.

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](http://www.npws.ie).

It is noted that the existing conservation condition of some habitats and species is unfavourable at present for various reasons, including because of exceedance in environmental quality parameters. This is discussed further in the next section.

### 4.3.2 In-combination Effects

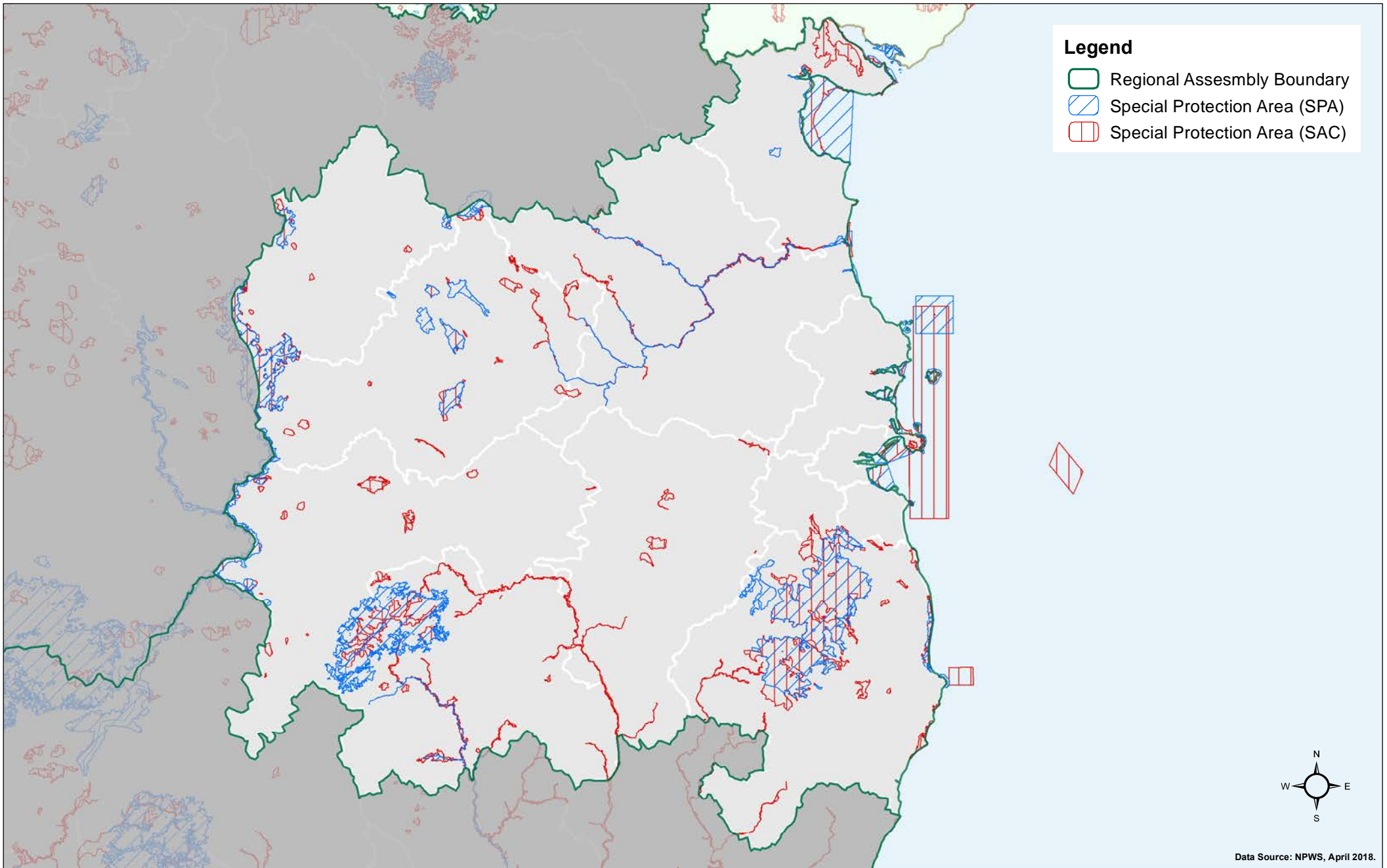
It is a requirement of Article 6(3) of the Habitats Directive that the in-combination effects with other plans or projects are considered. Consideration has been given, at this stage of the EM RSES, to other relevant plans on a similarly strategic level that have clear potential to have a cumulative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

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

Key Relevant Plans and Programmes	
National Planning Framework	National Development Plan
Southern RSES	Northern and Western RSES
National Climate Mitigation Plan	National Climate Change Adaptation Framework
Bioenergy Plan	Renewable Electricity Plan
Water Services Strategic Plan	National Water Resources Plan
Lead in Drinking Water Mitigation Plan	National Wastewater Sludge Management Plan

<sup>6</sup> [https://www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/)

Key Relevant Plans and Programmes	
Seafood Operation Programme	Aquaculture Plan
The National Biodiversity Plan	Regional Waste Management Plans
Construction 2020	National Landscape Strategy for Ireland
NPWS Conservation Plans and/or Conservation Objectives for SACs and SPAs	Rural Development Programme
Forestry Programme	Foodwise 2025
National Renewable Energy Action Plan (NREAP)	Strategy for Renewable Energy
Smarter Travel 'A New Transport Policy for Ireland'	Offshore Renewable Energy Development Plan
National Cycle Policy Framework	National Ports Policy
National Aviation Policy	Greater Dublin Area (GDA) Transport Strategy
Social Housing Strategy	



Data Source: NPWS, April 2018.

File Ref: MDR1402Arc0002F01

Regional Spatial & Economic Strategies SEA, AA & RFRA

**Figure 4.1 – European Sites in the Eastern & Midland Region**





## 5 CONCLUSION

The RSES is not directly connected with or necessary to the management of a European site. Furthermore, having regard to the following:

- The strategic nature of the plan;
- The current stage of preparation;
- Potential for impact pathway; and
- Uncertainties relating to the implementation and zone of influence of the plan going forward,

It cannot be excluded, on the basis of objective scientific information, that the EM RSES, individually or in combination with other plans and projects will have a significant effect on a European site. As such, it is recommended that an Appropriate Assessment is required and a Natura Impact Report should be prepared.

## 6 REFERENCES

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## **APPENDIX A1**

### **Special Areas of Conservation, Eastern and Midland Region**

SAC Site Name	Site Code
Killyconny Bog (Cloghbally) SAC	000006
Baldoyle Bay SAC	000199
Howth Head SAC	000202
Lambay Island SAC	000204
Malahide Estuary SAC	000205
North Dublin Bay SAC	000206
Rogerstown Estuary SAC	000208
South Dublin Bay SAC	000210
River Shannon Callows SAC	000216
Ballynafagh Bog SAC	000391
Pollardstown Fen SAC	000396
Red Bog, Kildare SAC	000397
Slieve Bloom Mountains SAC	000412
Lough Ree SAC	000440
Fortwilliam Turlough SAC	000448
Carlingford Mountain SAC	000453
Dundalk Bay SAC	000455
All Saints Bog And Esker SAC	000566
Charleville Wood SAC	000571
Clara Bog SAC	000572
Ferbane Bog SAC	000575
Fin Lough (Offaly) SAC	000576
Mongan Bog SAC	000580
Moyclare Bog SAC	000581
Raheenmore Bog SAC	000582
Sharavogue Bog SAC	000585
Garriskil Bog SAC	000679
Lough Ennell SAC	000685
Lough Owel SAC	000688
Scragh Bog SAC	000692
Ballyman Glen SAC	000713
Bray Head SAC	000714
Carriggower Bog SAC	000716
Deputy's Pass Nature Reserve SAC	000717
Glen Of The Downs SAC	000719
Knocksink Wood SAC	000725
Buckronev-Brittis Dunes And Fen SAC	000729
Vale Of Clara (Rathdrum Wood) SAC	000733
Slaney River Valley SAC	000781
Cullahill Mountain SAC	000831

SAC Site Name	Site Code
Clonaslee Eskers And Derry Bog SAC	000859
Lisbigney Bog SAC	000869
Ridge Road, SW of Rapemills SAC	000919
The Long Derries, Edenderry SAC	000925
Glenasmole Valley SAC	001209
Ballynafagh Lake SAC	001387
Rye Water Valley/Carton SAC	001398
Clogher Head SAC	001459
Kilpatrick Sandhills SAC	001742
Holdenstown Bog SAC	001757
Magherabeg Dunes SAC	001766
Pilgrim's Road Esker SAC	001776
White Lough, Ben Loughs And Lough Doo SAC	001810
Lough Forbes Complex SAC	001818
Split Hills And Long Hill Esker SAC	001831
Boyne Coast And Estuary SAC	001957
Lough Bane And Lough Glass SAC	002120
Lough Lene SAC	002121
Wicklow Mountains SAC	002122
Mountmellick SAC	002141
Lisduff Fen SAC	002147
River Barrow And River Nore SAC	002162
Ireland's Eye SAC	002193
Derragh Bog SAC	002201
Mount Jessop Bog SAC	002202
Girley (Drewstown) Bog SAC	002203
Wooddown Bog SAC	002205
Island Fen SAC	002236
The Murrrough Wetlands SAC	002249
Ballyprior Grassland SAC	002256
Wicklow Reef SAC	002274
River Boyne And River Blackwater SAC	002299
Carlingford Shore SAC	002306
Ballymore Fen SAC	002313
Mouds Bog SAC	002331
Coolrain Bog SAC	002332
Knockacoller Bog SAC	002333
Carn Park Bog SAC	002336
Crosswood Bog SAC	002337
Moneybeg And Clareisland Bogs SAC	002340
Ardagullion Bog SAC	002341
Mount Hevey Bog SAC	002342

<b>SAC Site Name</b>	<b>Site Code</b>
Brown Bog SAC	002346
Clooneen Bog SAC	002348
Rockabill to Dalkey Island SAC	003000
Codling Fault Zone SAC	003015

## **APPENDIX A2**

### **Special Protection Areas, Eastern and Midland Region**



SPA Site Name	Site Code
North Bull Island SPA	004006
Rockabill SPA	004014
Rogerstown Estuary SPA	004015
Baldoyle Bay SPA	004016
Mongan Bog SPA	004017
South Dublin Bay and River Tolka Estuary SPA	004024
Broadmeadow/Swords Estuary SPA	004025
Dundalk Bay SPA	004026
Wicklow Mountains SPA	004040
Lough Derravaragh SPA	004043
Lough Ennell SPA	004044
Glen Lough SPA	004045
Lough Iron SPA	004046
Lough Owel SPA	004047
Lough Kinale and Derragh Lough SPA	004061
Poulaphouca Reservoir SPA	004063
Lough Ree SPA	004064
Lough Sheelin SPA	004065
Lambay Island SPA	004069
Carlingford Lough SPA	004078
Boyne Estuary SPA	004080
River Little Brosna Callows SPA	004086
Stabannan-Braganstown SPA	004091
Middle Shannon Callows SPA	004096
River Suck Callows SPA	004097
Ballykenny-Fisherstown Bog SPA	004101
Garriskil Bog SPA	004102
All Saints Bog SPA	004103
Howth Head Coast SPA	004113
Ireland's Eye SPA	004117
Skerries Islands SPA	004122
Wicklow Head SPA	004127
Dovegrove Callows SPA	004137
River Nanny Estuary and Shore SPA	004158
Slieve Bloom Mountains SPA	004160
Dalkey Islands SPA	004172
The Murrough SPA	004186
River Boyne and River Blackwater SPA	004232
River Nore SPA	004233

## **APPENDIX B1**

### **Special Areas of Conservation, Northern and Western Region**

SAC Site Name	Site Code
Killyconny Bog (Cloghbally) SAC	000006
Lough Oughter And Associated Loughs SAC	000007
Aran Island (Donegal) Cliffs SAC	000111
Ballintra SAC	000115
Ballyarr Wood SAC	000116
Croaghonagh Bog SAC	000129
Donegal Bay (Murvagh) SAC	000133
Durnesh Lough SAC	000138
Fawnboy Bog/Lough Nacung SAC	000140
Gannivegil Bog SAC	000142
Horn Head And Rinclevan SAC	000147
Inishtrahull SAC	000154
Lough Eske And Ardnamona Wood SAC	000163
Lough Nagreany Dunes SAC	000164
Lough Nillan Bog (Carrickatlieve) SAC	000165
Magheradrumman Bog SAC	000168
Meenaguse/Ardbane Bog SAC	000172
Meentygrannagh Bog SAC	000173
Rathlin O'Birne Island SAC	000181
Sessiagh Lough SAC	000185
Slieve League SAC	000189
Slieve Tooley/Tormore Island/Loughros Beg Bay SAC	000190
St. John's Point SAC	000191
Tranarossan And Melmore Lough SAC	000194
West Of Ardara/Maas Road SAC	000197
Inishmaan Island SAC	000212
Inishmore Island SAC	000213
River Shannon Callows SAC	000216
Coolcam Turlough SAC	000218
Barroughter Bog SAC	000231
Caherglassaun Turlough SAC	000238
Castletaylor Complex SAC	000242
Cloonmoylan Bog SAC	000248
Coole-Garryland Complex SAC	000252
Croaghill Turlough SAC	000255
Derrycrag Wood Nature Reserve SAC	000261
Galway Bay Complex SAC	000268
Inishbofin And Inishshark SAC	000278
Kilsallagh Bog SAC	000285
Kiltartan Cave (Coole) SAC	000286

SAC Site Name	Site Code
Levally Lough SAC	000295
Lisnageeragh Bog and Ballinastack Turlough SAC	000296
Lough Corrib SAC	000297
Lough Cutra SAC	000299
Lough Lurgeen Bog/Glenamaddy Turlough SAC	000301
Lough Rea SAC	000304
Loughatorick South Bog SAC	000308
Peterswell Turlough SAC	000318
Pollnaknockaun Wood Nature Reserve SAC	000319
Rahasane Turlough SAC	000322
Rosroe Bog SAC	000324
Shankill West Bog SAC	000326
Slyne Head Islands SAC	000328
Tully Mountain SAC	000330
Lough Melvin SAC	000428
Lough Ree SAC	000440
Killala Bay/Moy Estuary SAC	000458
Ardkill Turlough SAC	000461
Balla Turlough SAC	000463
Bellacorick Iron Flush SAC	000466
Mullet/Blacksod Bay Complex SAC	000470
Brackloon Woods SAC	000471
Broadhaven Bay SAC	000472
Ballymaglancy Cave, Cong SAC	000474
Carrowkeel Turlough SAC	000475
Carrowmore Lake Complex SAC	000476
Cloughmoyne SAC	000479
Clyard Kettle-Holes SAC	000480
Cross Lough (Killadoon) SAC	000484
Corraun Plateau SAC	000485
Doocastle Turlough SAC	000492
Duvillaun Islands SAC	000495
Flughany Bog SAC	000497
Glenamoy Bog Complex SAC	000500
Greaghans Turlough SAC	000503
Kilglassan/Caheravoostia Turlough Complex SAC	000504
Inishkea Islands SAC	000507
Lackan Saltmarsh And Kilcummin Head SAC	000516
Lough Gall Bog SAC	000522
Shrule Turlough SAC	000525
Moore Hall (Lough Carra) SAC	000527
Oldhead Wood SAC	000532

SAC Site Name	Site Code
Owenduff/Nephin Complex SAC	000534
Skealaghan Turlough SAC	000541
Slieve Fyagh Bog SAC	000542
Cuilcagh - Anierin Uplands SAC	000584
Ballinturly Turlough SAC	000588
Bellanagare Bog SAC	000592
Callow Bog SAC	000595
Carrowbehy/Caher Bog SAC	000597
Cloonchambers Bog SAC	000600
Derrinea Bog SAC	000604
Lough Fingall Complex SAC	000606
Errit Lough SAC	000607
Lisduff Turlough SAC	000609
Lough Croan Turlough SAC	000610
Lough Funshinagh SAC	000611
Mullygollan Turlough SAC	000612
Cloonshanville Bog SAC	000614
Ballysadare Bay SAC	000622
Ben Bulben, Gleniff And Glenade Complex SAC	000623
Bunduff Lough And Machair/Trawalua/Mullaghmore SAC	000625
Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC	000627
Lough Hoe Bog SAC	000633
Lough Nabrickeagh Bog SAC	000634
Templehouse And Cloonacleigha Loughs SAC	000636
Turloughmore (Sligo) SAC	000637
Union Wood SAC	000638
Corratirrim SAC	000979
Ballyness Bay SAC	001090
Coolvoy Bog SAC	001107
Dunragh Loughs/Pettigo Plateau SAC	001125
Gweedore Bay And Islands SAC	001141
Kindrum Lough SAC	001151
Muckish Mountain SAC	001179
Sheephaven SAC	001190
Termon Strand SAC	001195
Aughrusbeg Machair And Lake SAC	001228
Carrownagappul Bog SAC	001242
Cregduff Lough SAC	001251
Dog's Bay SAC	001257
Gortnandarragh Limestone Pavement SAC	001271
Inisheer Island SAC	001275
Kiltiernan Turlough SAC	001285

SAC Site Name	Site Code
Omey Island Machair SAC	001309
Rusheenduff Lough SAC	001311
Ross Lake And Woods SAC	001312
Rosturra Wood SAC	001313
Termon Lough SAC	001321
Arroo Mountain SAC	001403
Clew Bay Complex SAC	001482
Doogort Machair/Lough Doo SAC	001497
Erris Head SAC	001501
Keel Machair/Menaun Cliffs SAC	001513
Lough Cahasy, Lough Baun And Roonah Lough SAC	001529
Mocorha Lough SAC	001536
Urlaur Lakes SAC	001571
Castlesampson Esker SAC	001625
Annaghmore Lough (Roscommon) SAC	001626
Four Roads Turlough SAC	001637
Bricklieve Mountains and Keishcorran SAC	001656
Knockalongy and Knockachree Cliffs SAC	001669
Lough Arrow SAC	001673
Streedagh Point Dunes SAC	001680
Lough Carra/Mask Complex SAC	001774
Kilroosky Lough Cluster SAC	001786
Lough Forbes Complex SAC	001818
Meenaguse Scragh SAC	001880
Unshin River SAC	001898
Cloonakillina Lough SAC	001899
Sonnagh Bog SAC	001913
Glenade Lough SAC	001919
Bellacorick Bog Complex SAC	001922
East Burren Complex SAC	001926
Mweelrea/Sheeffry/Erriff Complex SAC	001932
Croaghaun/Slievemore SAC	001955
Ballyhoorisky Point To Fanad Head SAC	001975
Lough Gill SAC	001976
Tamur Bog SAC	001992
Bellacragher Saltmarsh SAC	002005
Ox Mountains Bogs SAC	002006
Maumturk Mountains SAC	002008
North Inishowen Coast SAC	002012
The Twelve Bens/Garraun Complex SAC	002031
Boleybrack Mountain SAC	002032
Connemara Bog Complex SAC	002034

SAC Site Name	Site Code
Cloghernagore Bog And Glenveagh National Park SAC	002047
Slyne Head Peninsula SAC	002074
Ballinafad SAC	002081
Corliskea/Trien/Cloonfelliv Bog SAC	002110
Kilkieran Bay And Islands SAC	002111
Lough Coy SAC	002117
Barnahallia Lough SAC	002118
Lough Nageeron SAC	002119
Murvey Machair SAC	002129
Tully Lough SAC	002130
Lough Nageage SAC	002135
Newport River SAC	002144
Mulroy Bay SAC	002159
Lough Golagh And Breesy Hill SAC	002164
Leannan River SAC	002176
Lough Dahybaun SAC	002177
Towerhill House SAC	002179
Gortacarnaun Wood SAC	002180
Drummin Wood SAC	002181
Derrinlough (Cloonkeenleananode) Bog SAC	002197
Ballygar (Aghrane) Bog SAC	002199
Aughrim (Aghrane) Bog SAC	002200
Glenloughaun Esker SAC	002213
Killeglan Grassland SAC	002214
Lough Derg, North-east Shore SAC	002241
Clare Island Cliffs SAC	002243
Ardrahan Grassland SAC	002244
Tory Island Coast SAC	002259
Kingstown Bay SAC	002265
Achill Head SAC	002268
Rutland Island And Sound SAC	002283
Lough Swilly SAC	002287
Carrowbaun, Newhall and Ballylee Turloughs SAC	002293
Cahermore Turlough SAC	002294
Ballinduff Turlough SAC	002295
Williamstown Turloughs SAC	002296
River Moy SAC	002298
River Boyne And River Blackwater SAC	002299
River Finn SAC	002301
Dunmuckrum Turloughs SAC	002303
Kildun Souterrain SAC	002320
Drumalough Bog SAC	002338

SAC Site Name	Site Code
Ballynamona Bog And Corkip Lough SAC	002339
Camderry Bog SAC	002347
Corbo Bog SAC	002349
Curraglehanagh Bog SAC	002350
Monivea Bog SAC	002352
Tullaghanrock Bog SAC	002354
Ardgraique Bog SAC	002356
West Connacht Coast SAC	002998
Hempton's Turbot Bank SAC	002999

### Offshore European Sites

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



## **APPENDIX B2**

### **Special Protection Areas, North and Western Region**

SPA Site Name	Site Code
Inishkea Islands SPA	004004
Drumcliff Bay SPA	004013
Inner Galway Bay SPA	004031
Trawbreaga Bay SPA	004034
Cummeen Strand SPA	004035
Killala Bay/Moy Estuary SPA	004036
Blacksod Bay/Broadhaven SPA	004037
Derryveagh And Glendowan Mountains SPA	004039
Lough Corrib SPA	004042
Lough Gara SPA	004048
Lough Oughter SPA	004049
Lough Arrow SPA	004050
Lough Carra SPA	004051
Carrowmore Lake SPA	004052
Lough Cutra SPA	004056
Lough Derg (Donegal) SPA	004057
Lough Derg (Shannon) SPA	004058
Lough Fern SPA	004060
Lough Kinale and Derragh Lough SPA	004061
Lough Mask SPA	004062
Lough Ree SPA	004064
Lough Sheelin SPA	004065
Inishmurray SPA	004068
Stags of Broad Haven SPA	004072
Tory Island SPA	004073
Illanmaster SPA	004074
Lough Swilly SPA	004075
Inishbofin, Inishdoeey and Inishbeg SPA	004083
Inishglora and Inishkeeragh SPA	004084
Lough Foyle SPA	004087
Rahasane Turlough SPA	004089
Sheskinmore Lough SPA	004090
Termoncarragh Lake and Annagh Machair SPA	004093
Middle Shannon Callows SPA	004096
River Suck Callows SPA	004097
Owenduff/Nephin Complex SPA	004098
Pettigo Plateau Nature Reserve SPA	004099
Inishtrahull SPA	004100
Ballykenny-Fisherstown Bog SPA	004101
Bellanagare Bog SPA	004105
Coole-Garryland SPA	004107
Lough Nillan Bog SPA	004110

SPA Site Name	Site Code
Duvillaun Islands SPA	004111
Inishduff SPA	004115
Inishkeel SPA	004116
Rathlin O'Birne Island SPA	004120
Roaninish SPA	004121
Ballysadare Bay SPA	004129
Illancrone and Inishkeeragh SPA	004132
Aughris Head SPA	004133
Lough Rea SPA	004134
Clare Island SPA	004136
Lough Croan Turlough SPA	004139
Four Roads Turlough SPA	004140
Cregganna Marsh SPA	004142
High Island, Inishshark and Davillaun SPA	004144
Durnesh Lough SPA	004145
Malin Head SPA	004146
Fanad Head SPA	004148
Falcarragh to Meenlaragh SPA	004149
West Donegal Coast SPA	004150
Donegal Bay SPA	004151
Inishmore SPA	004152
Slyne Head To Ardmore Point Islands SPA	004159
Slieve Beagh SPA	004167
Slieve Aughty Mountains SPA	004168
Cruagh Island SPA	004170
Bills Rocks SPA	004177
Connemara Bog Complex SPA	004181
Sligo/Leitrim Uplands SPA	004187
Horn Head to Fanad Head SPA	004194
Cross Lough (Killadoon) SPA	004212
Ilannanooon SPA	004221
Mullet Peninsula SPA	004227
Lough Conn and Lough Cullin SPA	004228
West Donegal Islands SPA	004230
Inishbofin, Omey Island and Turbot Island SPA	004231
River Boyne and River Blackwater SPA	004232
Ballintemple and Ballygilgan SPA	004234
Doogort Machair SPA	004235

## **APPENDIX C1**

### **Special Areas of Conservation, Southern Region**

SAC Site Name	Site Code
Ballyallia Lake SAC	000014
Ballycullinan Lake SAC	000016
Ballyogan Lough SAC	000019
Black Head-Poulsallagh Complex SAC	000020
Danes Hole, Poulnalecka SAC	000030
Dromore Woods And Loughs SAC	000032
Inagh River Estuary SAC	000036
Pouladatig Cave SAC	000037
Lough Gash Turlough SAC	000051
Moneen Mountain SAC	000054
Moyree River System SAC	000057
Poulnagordon Cave (Quin) SAC	000064
Ballymacoda (Clonpriest and Pillmore) SAC	000077
Glengarriff Harbour And Woodland SAC	000090
Clonakilty Bay SAC	000091
Caha Mountains SAC	000093
Lough Hyne Nature Reserve And Environs SAC	000097
Roaringwater Bay And Islands SAC	000101
Sheep's Head SAC	000102
St. Gobnet's Wood SAC	000106
The Gearagh SAC	000108
Three Castle Head To Mizen Head SAC	000109
Curraghchase Woods SAC	000174
River Shannon Callows SAC	000216
Galway Bay Complex SAC	000268
Loughatorick South Bog SAC	000308
Akeragh, Banna and Barrow Harbour SAC	000332
Ballinskelligs Bay And Inny Estuary SAC	000335
Castlemaine Harbour SAC	000343
Old Domestic Building, Dromore Wood SAC	000353
Kilgarvan Ice House SAC	000364
Killarney National Park, Macgillycuddy's Reeks And Caragh River Catchment SAC	000365
Lough Yganavan And Lough Nambrackdarrig SAC	000370
Mount Brandon SAC	000375
Sheheree (Ardagh) Bog SAC	000382
Hugginstown Fen SAC	000404
The Loughans SAC	000407
Barrigone SAC	000432
Tory Hill SAC	000439
Sharavogue Bog SAC	000585
Ballyduff/Clonfinane Bog SAC	000641

SAC Site Name	Site Code
Galtee Mountains SAC	000646
Kilcarren-Firville Bog SAC	000647
Helvick Head SAC	000665
Nier Valley Woodlands SAC	000668
Tramore Dunes And Backstrand SAC	000671
Ballyteige Burrow SAC	000696
Bannow Bay SAC	000697
Cahore Polders And Dunes SAC	000700
Lady's Island Lake SAC	000704
Saltee Islands SAC	000707
Screen Hills SAC	000708
Tacumshin Lake SAC	000709
Raven Point Nature Reserve SAC	000710
Hook Head SAC	000764
Blackstairs Mountains SAC	000770
Slaney River Valley SAC	000781
Cullahill Mountain SAC	000831
Spahill And Clomantagh Hill SAC	000849
Clare Glen SAC	000930
Kilduff, Devilsbit Mountain SAC	000934
Silvermine Mountains SAC	000939
Ballyteige (Clare) SAC	000994
Ballyvaughan Turlough SAC	000996
Glenomra Wood SAC	001013
Carrowmore Point To Spanish Point And Islands SAC	001021
Barley Cove To Ballyrisode Point SAC	001040
Cleanderry Wood SAC	001043
Great Island Channel SAC	001058
Kilkeran Lake And Castlefreke Dunes SAC	001061
Myross Wood SAC	001070
Keeper Hill SAC	001197
Courtmacsherry Estuary SAC	001230
Cloonee And Inchiquin Loughs, Uragh Wood SAC	001342
Mucksna Wood SAC	001371
Glen Bog SAC	001430
Glenstal Wood SAC	001432
Castletownshend SAC	001547
Liskeenan Fen SAC	001683
Kilmuckridge-Tinnaberna Sandhills SAC	001741
Kilpatrick Sandhills SAC	001742
Philipston Marsh SAC	001847
Galmoy Fen SAC	001858
Derryclogher (Knockboy) Bog SAC	001873

SAC Site Name	Site Code
Glanmore Bog SAC	001879
Maulagowna Bog SAC	001881
Mullaghanish Bog SAC	001890
Glendree Bog SAC	001912
East Burren Complex SAC	001926
Comeragh Mountains SAC	001952
Old Domestic Building (Keevagh) SAC	002010
Ballyhoura Mountains SAC	002036
Carrigeenamronety Hill SAC	002037
Old Domestic Building, Curraglass Wood SAC	002041
Tralee Bay And Magharees Peninsula, West To Cloghane SAC	002070
Newhall and Edenvale Complex SAC	002091
Old Domestic Building, Askive Wood SAC	002098
Ballyseedy Wood SAC	002112
Ardmore Head SAC	002123
Bolingbrook Hill SAC	002124
Anglesey Road SAC	002125
Pollagoona Bog SAC	002126
Lower River Suir SAC	002137
Newgrove House SAC	002157
Kenmare River SAC	002158
River Barrow And River Nore SAC	002162
Lower River Shannon SAC	002165
Blackwater River (Cork/Waterford) SAC	002170
Bandon River SAC	002171
Blasket Islands SAC	002172
Blackwater River (Kerry) SAC	002173
Slieve Mish Mountains SAC	002185
Drongawn Lough SAC	002187
Farranamanagh Lough SAC	002189
Scohaboy (Sopwell) Bog SAC	002206
Arragh More (Derrybreen) Bog SAC	002207
Lough Derg, North-east Shore SAC	002241
Old Farm Buildings, Ballymacrogan SAC	002245
Ballycullinan, Old Domestic Building SAC	002246
Toonagh Estate SAC	002247
Carrowmore Dunes SAC	002250
Thomastown Quarry SAC	002252
Moanour Mountain SAC	002257
Silvermines Mountains West SAC	002258
Magharee Islands SAC	002261
Valencia Harbour/Portmagee Channel SAC	002262
Kerry Head Shoal SAC	002263

<b>SAC Site Name</b>	<b>Site Code</b>
Kilkee Reefs SAC	002264
Carnsore Point SAC	002269
Askeaton Fen Complex SAC	002279
Dunbeacon Shingle SAC	002280
Reen Point Shingle SAC	002281
Slieve Bernagh Bog SAC	002312
Old Domestic Buildings, Rylane SAC	002314
Glanlough Woods SAC	002315
Ratty River Cave SAC	002316
Cregg House Stables, Crusheen SAC	002317
Knockanira House SAC	002318
Kilkishen House SAC	002319
Glendine Wood SAC	002324
Tullaher Lough And Bog SAC	002343
Moanveanlagh Bog SAC	002351
Redwood Bog SAC	002353
Blackwater Bank SAC	002953



## **APPENDIX C2**

### **Special Protection Areas, Southern Region**

SPA Site Name	Site Code
Puffin Island SPA	004003
Cliffs of Moher SPA	004005
Blasket Islands SPA	004008
Lady's Island Lake SPA	004009
The Raven SPA	004019
Ballyteigue Burrow SPA	004020
Old Head of Kinsale SPA	004021
Ballycotton Bay SPA	004022
Ballymacoda Bay SPA	004023
Tramore Back Strand SPA	004027
Blackwater Estuary SPA	004028
Castlemaine Harbour SPA	004029
Cork Harbour SPA	004030
Inner Galway Bay SPA	004031
Dungarvan Harbour SPA	004032
Bannow Bay SPA	004033
Killarney National Park SPA	004038
Ballyallia Lough SPA	004041
Lough Derg (Shannon) SPA	004058
The Bull and The Cow Rocks SPA	004066
Wexford Harbour and Slobbs SPA	004076
River Shannon and River Fergus Estuaries SPA	004077
Clonakilty Bay SPA	004081
River Little Brosna Callows SPA	004086
Tacumshin Lake SPA	004092
Blackwater Callows SPA	004094
Kilcolman Bog SPA	004095
Middle Shannon Callows SPA	004096
Eirk Bog SPA	004108
The Gearagh SPA	004109
Illaunonearaun SPA	004114
Keeragh Islands SPA	004118
Loop Head SPA	004119
Sovereign Islands SPA	004124
Magharee Islands SPA	004125
Cahore Marshes SPA	004143
Dingle Peninsula SPA	004153
Iveragh Peninsula SPA	004154
Beara Peninsula SPA	004155
Sheep's Head to Toe Head SPA	004156
Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA	004161
Mullaghanish to Musheramore Mountains SPA	004162
Slievefelim to Silvermines Mountains SPA	004165

<b>SPA Site Name</b>	<b>Site Code</b>
Slieve Aughty Mountains SPA	004168
Deenish Island and Scariff Island SPA	004175
Mid-Clare Coast SPA	004182
Tralee Bay Complex SPA	004188
Kerry Head SPA	004189
Galley Head to Duneen Point SPA	004190
Seven Heads SPA	004191
Helvick Head to Ballyquin SPA	004192
Mid-Waterford Coast SPA	004193
Courtmacsherry Bay SPA	004219
Corofin Wetlands SPA	004220
River Nore SPA	004233

## **APPENDIX D1**

### **Special Areas of Conservation, Northern Ireland**

<b>Special Area of Conservation (SAC)</b>	<b>Site Code</b>	<b>Special Area of Conservation (SAC)</b>	<b>Site Code</b>
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 D2**

### **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	<b>Favourable</b> Improvement owing to decline in pressures
Estuary	1130	Inadequate	<b>Unfavourable-Inadequate</b> Trend is likely improvement in habitat condition in the future
Mudflats and Sandflats not covered by seawater at low tide	1140	Inadequate	<b>Unfavourable-Inadequate</b> Trend is likely improvement in habitat condition in the future
Lagoons *	1150	Bad	<b>Unfavourable-Bad</b> No change since previous assessment period
Large Shallow Inlets and Bays	1160	Inadequate	<b>Unfavourable-Inadequate</b> Although inadequate, trend is considered to be improvement
Reefs	1170	Inadequate	<b>Unfavourable-Bad</b> Declining as there is no indication that current pressures will reduce in the future
Annual vegetation of drift lines	1210	Inadequate	<b>Unfavourable-Inadequate</b> Declining owing to loss of area and impairment of structure & functions
Perennial vegetation of drift lines	1220	Inadequate	<b>Unfavourable-Inadequate</b> Trend is stable (e.g. no change)
Vegetated sea cliffs of the Atlantic and Baltic coasts	1230	Inadequate	<b>Unfavourable-Inadequate</b> Trend is estimated as stable though potential impacts of climate change may pose a more serious threat
<i>Salicornia</i> and other annuals colonising mud and sand	1310	Inadequate	<b>Unfavourable-Inadequate</b> Trend is estimated as declining owing to on-going spread of common cordgrass
<i>Spartina</i> Swards (Spartinion)	1320	Bad	No Assessment given owing to the non-native nature (in Ireland) of this habitat
Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritima</i> )	1330	Inadequate	<b>Unfavourable-Inadequate</b> Trend is stable though grazing levels may impact habitat condition
Mediterranean salt meadows ( <i>Juncetalia maritimi</i> )	1410	Inadequate	<b>Unfavourable-Inadequate</b> Trend is stable though grazing levels may impact habitat condition
Halophilous Scrub	1420	Bad	<b>Unfavourable-Bad</b> Trend is declining owing to habitat vulnerability and losses
Embryonic shifting dunes	2110	Inadequate	<b>Unfavourable-Inadequate</b> Trend is Stable (negligible national loss of area)
Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes")	2120	Bad	<b>Unfavourable-Inadequate</b> Trend is stable (no real change, owing to differing assessment methodology)
Fixed coastal dunes with herbaceous vegetation	2130	Bad	<b>Unfavourable-Bad</b> 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 <i>Empetrum</i> Dunes *	2140	Bad	<b>Unfavourable-Inadequate</b> Trend is slight improvement related to change in interpretation criteria
Decalcified dune Heath *	2150	Bad	<b>Unfavourable-Inadequate</b> Trend is slight improvement related to change in interpretation criteria
Dunes with Creeping Willow	2170	Inadequate	<b>Unfavourable-Inadequate</b> Trend is stable due to no apparent overall change in management pressures
Humid dune slacks	2190	Bad	<b>Unfavourable-Inadequate</b> Declining in view of the ongoing pressures and threats
Machair *	21A0	Bad	<b>Unfavourable-Bad</b> Trend is stable (negligible national loss of area and habitat compromise due to management regimes)
Oligotrophic soft water Lakes	3110	Bad	<b>Unfavourable-Bad</b> Trend is declining owing to eutrophication
Soft water lakes with base-rich influences	3130	Bad	<b>Unfavourable-Inadequate.</b> Change to improved ecological analysis.
Hard water lakes	3140	Bad	<b>Unfavourable-Bad</b> Trend is declining owing to continued pollution events
Natural eutrophic lakes	3150	Bad	<b>Unfavourable-Inadequate</b> Trend is stable, with change in status due to improved ecological analysis
Dystrophic lakes	3160	Bad	<b>Unfavourable-Inadequate</b> Trend is declining but change of assessment due to better ecological understanding of the distribution and ecological requirements of this habitat
Turloughs *	3180	Inadequate	<b>Unfavourable-Inadequate</b> Trend is stable but threats still remain
Floating river vegetation	3260	Bad	<b>Unfavourable-Inadequate</b> Trend is declining but change of assessment due to better ecological understanding of the distribution and ecological requirements of this habitat
Chenopodium rubri	3270	Favourable	<b>Favourable</b> Trend is considered stable but further work required to improve understanding
Wet Heath	4010	Bad	<b>Unfavourable-Bad</b> 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	<b>Unfavourable-Bad</b> 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)	<b>Unfavourable-Bad</b> Trend is improving owing to improvements in management
Juniper scrub	5130	Inadequate	<b>Unfavourable-Inadequate</b> Trend is stable owing to no apparent change in circumstances or condition
Calaminarian grassland	6130	Inadequate	<b>Unfavourable-Inadequate</b> Trend is stable and better understanding should feed into improved management regimes
Orchid-rich calcareous grassland *	6210	Bad	<b>Unfavourable-Bad</b> Trend is stable but no change in pressures in near future
Species-rich <i>Nardus</i> upland grassland *	6230	Bad	<b>Unfavourable-Bad</b> Trend is declining owing to losses from non-compatible land uses
<i>Molinia</i> Meadows	6410	Bad	<b>Unfavourable-Bad</b> Trend is declining owing to abandonment of management scrub encroachment
Hydrophilous tall herb	6430	Inadequate (on hindsight the assessment should have been bad)	<b>Unfavourable-Bad</b> Trend is declining despite its marginal extent owing to reclamation
Lowland Hay meadows	6510	Bad	<b>Unfavourable-Bad</b> Trend is stable owing to no overall change in extent of management
Raised Bog (active) *	7110	Bad	<b>Unfavourable-Bad</b> 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	<b>Unfavourable-Bad</b> Trend is declining owing to loss of extent and habitat degradation
Blanket Bog (active) *	7130	Bad	<b>Unfavourable-Bad</b> Trend is declining owing to loss of extent and habitat degradation
Transition Mires	7140	Bad	<b>Unfavourable-Bad</b> Trend is unconfirmed owing to lack of nationwide scientific data
Rhynchosprion Depressions	7150	Favourable	<b>Unfavourable-Inadequate</b>

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	<b>Unfavourable-Bad</b> Trend is unconfirmed owing to lack of nationwide scientific data
Petrifying Springs *	7220	Bad	<b>Unfavourable-Inadequate</b> Trend is stable but pressures and poor management regimes remain
Alkaline Fen	7230	Bad	<b>Unfavourable-Bad</b> Trend is unconfirmed owing to lack of nationwide scientific data
Siliceous Scree	8110	Inadequate	<b>Unfavourable-Inadequate</b> Trend is improving owing to implementation of commonage framework plans
Eutric Scree	8120	Inadequate	<b>Unfavourable-Inadequate</b> Trend is stable with no change
Calcareous rocky slopes	8210	Inadequate	<b>Unfavourable-Inadequate</b> Trend is stable although grazing levels can impair quality
Siliceous rocky slopes	8220	Inadequate	<b>Unfavourable-Inadequate</b> Trend is stable although grazing, recreation and spread of invasive species continue
Limestone Pavement *	8240	Inadequate	<b>Unfavourable-Inadequate</b> Trend is stable owing to management measures to control losses
Caves	8310	Favourable	<b>Favourable</b> Additional research required to understand structure and subterranean climatic conditions
Sea Caves	8330	Favourable	<b>Favourable</b> Trend is stable as no significant pressures
Old Oak Woodlands	91A0	Bad	<b>Unfavourable-Bad</b> Trend is improving due in part to considerable management effort to rehabilitate habitat
Bog Woodland *	91D0	Inadequate	<b>Favourable</b> Trend is improving owing to better understanding of, and subsequent increase in extent
Residual Alluvial Forests *	91E0	Bad	<b>Unfavourable-Bad</b> Trend is improving owing to level of rehabilitation to date
<i>Taxus baccata</i> woods*	91J0	Bad	<b>Unfavourable-Bad</b> 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 ( <i>Trichomanes speciosum</i> )	1421	Favourable	<b>Favourable</b> Trend is stable with no significant impact
Marsh Saxifrage ( <i>Saxifaga granulata</i> )	1528	Favourable	<b>Favourable</b> Trend is stable with no significant impact
Slender Naiad ( <i>Najas flexilis</i> )	1833	Inadequate	<b>Unfavourable-Inadequate</b> Trend is stable but eutrophication remains an issue
Slender Green Feather Moss ( <i>Hamatocaulis vernicosus</i> )	1393	Favourable	<b>Favourable</b> Trend is stable with no significant impact
Petalwort ( <i>Petalophyllum ralfsii</i> )	1395	Favourable	<b>Favourable</b> Trend is stable with no significant impact
Maërl ( <i>Lithothamnion corralloides</i> )	1376	Inadequate	<b>Unfavourable-Inadequate</b> 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 ( <i>Phymatolithon calcareum</i> )	1377	Inadequate	<b>Unfavourable-Inadequate</b> 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 ( <i>Leucobryum glaucum</i> )	1400	Inadequate	<b>Favourable</b> No genuine change but it is widespread, occurs in many habitat types and is not under pressure or threat directly
<i>Sphagnum</i> genus	1409	Inadequate	<b>Unfavourable-Inadequate</b> 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	<b>Unfavourable-Inadequate</b> No change in trend. Condition of habitats considered to be poor due to peat extraction, drainage, eutrophication and ecologically unsuitable grazing
<i>Cladonia</i> subgenus <i>cladina</i>	1378	Inadequate	<b>Unfavourable-Inadequate</b> No change in trend. Condition of habitats considered to be poor due to peat extraction, drainage, eutrophication and ecologically unsuitable grazing
Geyers whorl snail ( <i>Vertigo geyeri</i> )	1013	Inadequate	<b>Unfavourable-Inadequate</b> Genuine decline in trend with losses not fully understood. Sites for species fragile and easily damaged
Narrow-mouthed whorl snail ( <i>Vertigo angustoir</i> )	1014	Inadequate	<b>Unfavourable-Inadequate</b> 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 ( <i>Vertigo moulinsiana</i> )	1016	Bad	<b>Unfavourable-Inadequate</b> 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 ( <i>Geomalacus maculosus</i> )	1024	Favourable	<b>Favourable</b> Trend stable. No evidence of decline, habitats remain in good condition
Freshwater Pearl Mussel ( <i>Margaritifera margaritifera</i> )	1029	Bad	<b>Unfavourable-Bad</b> Decline in trend. Wide variety of sources of sediment and nutrients entering mussel rivers. Direct impacts from in-stream works
Irish Freshwater Pearl Mussel ( <i>Margaritifera durrovensis</i> )	1990	Bad	<b>Unfavourable-Bad</b> 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 ( <i>Austropotambius pallipes</i> )	1092	Inadequate	<b>Unfavourable-Inadequate</b> Trend is stable. Threat from disease introduction is severe and unlikely to disappear
Marsh Fritillary ( <i>Euphydryas aurinia</i> )		Inadequate	<b>Unfavourable-Inadequate</b> Decline in trend. Appropriate measures need to be taken to reduce pressures
Sea Lamprey ( <i>Petromyzon marinus</i> )	1095	Inadequate	<b>Unfavourable-Bad</b> Trend is stable. Decline in status due to improved knowledge. Low number of juveniles due to barriers to migration
River Lamprey ( <i>Lampetra fluviatilis</i> )	1099	Favourable	<b>Favourable</b> No change. Extensive areas of suitable habitat and no significant pressures
Brook Lamprey ( <i>Lampetra planeri</i> )	1096	Favourable	<b>Favourable</b> No change. Extensive areas of suitable habitat and no significant pressures
Killarney Shad ( <i>Alosa fallax killarnensis</i> )	5046	Favourable	<b>Favourable</b> No change. Species maintaining robust population and habitat favourable
Twaite Shad ( <i>Alosa fallax fallax</i> )	1103	Bad	<b>Unfavourable-Bad</b> Trend stable, approach refined. Concerns about habitat quality at spawning sites and hybridisation with Allis Shad
Pollan ( <i>Coregonus autumnalis</i> )	5076	Bad	<b>Unfavourable-Bad</b> 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 ( <i>Salmo salar</i> )	1106	Bad	<b>Unfavourable-Inadequate</b> Trend stable, no genuine change. This is due to threats to habitat quality and low populations compared to previous years
Natterjack Toad ( <i>Bufo calamita</i> )	1202	Bad	<b>Unfavourable-Bad</b> Trend improved due to investment in pond creation increasing available habitat
Common Frog ( <i>Rana temporaria</i> )	1213	Inadequate	<b>Favourable</b> No trend change but improved status due to better understanding of how frogs use the Irish landscape
Leatherback Turtle ( <i>Dermochelys coriacea</i> )	1223	Inadequate	<b>Unknown</b> Full assessment not possible due to significant difficulties associated with studying the species
Lesser Horseshoe Bat ( <i>Rhinolophus hipposideros</i> )	1303	Favourable	<b>Favourable</b> Trend is stable. Significant proportion of summer and winter roosts protected within SACs. Increased population
Common Pipistrelle ( <i>Pipistrellus pipistrellus</i> )	1309	Favourable	<b>Favourable</b> Trend is stable. Population stable, possibly increasing
Soprano Pipistrelle ( <i>Pipistrellus pygmaeus</i> )	5009	Favourable	<b>Favourable</b> Trend is stable. Population increasing
Nathusius' Pipistrelle ( <i>Pipistrelle nathusii</i> )	1317	Favourable	<b>Unknown</b> Unknown due to uncertain data
Natterer's Bat ( <i>Myotis nattereri</i> )	1322	Favourable	<b>Favourable</b> Trend is stable. Area of suitable habitat increasing
Daubenton's Bat ( <i>Myotis daubentonii</i> )	1314	Favourable	<b>Favourable</b> Trend is stable. Stable populations
Whiskered Bat ( <i>Myotis mystacinus</i> )	1330	Favourable	<b>Favourable</b> Trend is stable. Area of suitable habitat increasing
Brown Long-Eared Bat ( <i>Plecotus auritus</i> )	1326	Favourable	<b>Favourable</b> Trend is stable. Population increasing
Leisler's Bat ( <i>Nyctalus leisleri</i> )	1331	Favourable	<b>Favourable</b> Trend is stable. Population increasing
Mountain Hare ( <i>Lepus timidus</i> )	1334	Inadequate	<b>Favourable</b> Change due to improved knowledge. Hare is widespread with broad habitat niche
Otter ( <i>Lutra lutra</i> )	1355	Inadequate	<b>Favourable</b> Trend improved. Previous concerns about population decline have been allayed
Pine Marten ( <i>Martes martes</i> )	1357	Favourable	<b>Favourable</b> Trend is stable. Ample habitat available

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



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

Bird Species	Code	Status BoCCI2 2007-2013*	Status BoCCI3 2014-2019*
Red-throated Diver ( <i>Gavia stellata</i> )	A001	Amber (breeding)	<b>Amber</b> (breeding)
Great Northern Diver ( <i>Gavia immer</i> )	A003	Green (wintering)	<b>Amber</b> (wintering)
Little Grebe ( <i>Tachybaptus ruficollis</i> )	A004	Amber (breeding/wintering)	<b>Amber</b> (breeding/wintering)
Great Crested Grebe ( <i>Podiceps cirstatus</i> )	A005	Amber (breeding/wintering)	<b>Amber</b> (breeding/wintering)
Fulmar ( <i>Fulmarus glacialis</i> )	A009	Green (breeding)	<b>Green</b> (breeding)
Manx Shearwater ( <i>Puffinus puffinus</i> )	A013	Amber (breeding)	<b>Amber</b> (breeding)
Storm Petrel ( <i>Hydrobates pelagicus</i> )	A014	Amber (breeding)	<b>Amber</b> (breeding)
Leach's Storm-petrel ( <i>Oceanodroma leucorhoa</i> )	A015	Amber (breeding)	<b>Red</b> (breeding)
Gannet ( <i>Morus bassanus</i> )	A016	Amber (breeding)	<b>Amber</b> (breeding)
Cormorant ( <i>Phalacrocorax carbo</i> )	A017	Amber (breeding/wintering)	<b>Amber</b> (breeding/wintering)
Shag ( <i>Phalacrocorax aristotelis</i> )	A018	Amber (breeding)	<b>Amber</b> (breeding)
Grey heron ( <i>Ardea cinerea</i> )	A028	Green (breeding/wintering)	<b>Green</b> (breeding/wintering)
Bewick's Swan ( <i>Cygnus columbianus bewickii</i> )	A037	Red (wintering)	<b>Red</b> (wintering)

Bird Species	Code	Status BoCCI2 2007-2013*	Status BoCCI3 2014-2019*
Whooper Swan ( <i>Cygnus cygnus</i> )	A038	Amber (wintering)	<b>Amber</b> (wintering)
Greylag Goose ( <i>Anser anser</i> )	A043	Amber (wintering)	<b>Amber</b> (wintering)
Barnacle Goose ( <i>Branta leucopsis</i> )	A045	Amber (wintering)	<b>Amber</b> (wintering)
Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> )	A046	Amber (wintering)	<b>Amber</b> (wintering)
Shelduck ( <i>Tadorna tadorna</i> )	A048	Amber (breeding/wintering)	<b>Amber</b> (breeding/wintering)
Wigeon ( <i>Anas penelope</i> )	A050	Amber (wintering)	<b>Red</b> (wintering)
Gadwall ( <i>Anas strepera</i> )	A051	Amber (breeding/wintering)	<b>Amber</b> (breeding/wintering)
Teal ( <i>Anas crecca</i> )	A052	Amber (breeding/wintering)	<b>Amber</b> (breeding/wintering)
Mallard ( <i>Anas platyrhynchos</i> )	A053	Green (wintering)	<b>Green</b> (wintering)
Pintail ( <i>Anas acuta</i> )	A054	Red (wintering)	<b>Red</b> (wintering)
Shoveler ( <i>Anas clypeata</i> )	A056	Red (wintering)	<b>Red</b> (wintering)
Pochard ( <i>Aythya farina</i> )	A059	Amber (wintering)	<b>Red</b> (wintering)
Tufted Duck ( <i>Aythya fuligula</i> )	A061	Amber (wintering)	<b>Red</b> (wintering)
Scaup ( <i>Aythya marila</i> )	A062	Amber (wintering)	<b>Amber</b> (wintering)
Eider ( <i>Somateria mollissima</i> )	A063	Amber (breeding/wintering)	<b>Amber</b> (breeding/wintering)
Common Scoter ( <i>Melanitta nigra</i> )	A065	Red (breeding)	<b>Red</b> (breeding)
Goldeneye ( <i>Bucephala clangula</i> )	A067	Amber (wintering)	<b>Red</b> (wintering)
Red-breasted Merganser ( <i>Mergus serrator</i> )	A069	Green (breeding/wintering)	<b>Green</b> (breeding/wintering)
Hen Harrier ( <i>Circus cyaneus</i> )	A082	Amber (breeding)	<b>Amber</b> (breeding)
Merlin ( <i>Falco columbarius</i> )	A098	Amber (breeding)	<b>Amber</b> (breeding)
Peregrine ( <i>Falco peregrinus</i> )	A103	Green (breeding)	<b>Green</b> (breeding)
Corncrake ( <i>Crex crex</i> )	A122	<b>Red</b> (breeding)	<b>Red</b> (breeding)
Coot ( <i>Fulica atra</i> )	A125	<b>Amber</b> (breeding/wintering)	<b>Amber</b> (breeding/wintering)
Oystercatcher ( <i>Haematopus ostralegus</i> )	A130	Amber (breeding/wintering)	<b>Amber</b> (breeding/wintering)
Ringed Plover ( <i>Charadrius hiaticula</i> )	A137	Amber (wintering)	<b>Green</b> (wintering)
Golden Plover ( <i>Pluvialis apricaria</i> )	A140	Red (breeding/wintering)	<b>Red</b> (breeding/wintering)
Grey Plover ( <i>Pluvialis squatarola</i> )	A141	Amber(wintering)	<b>Amber</b> (wintering)
Lapwing ( <i>Vanellus vanellus</i> )	A142	Red (breeding/wintering)	<b>Red</b> (breeding/wintering)
Knot ( <i>Calidris canutus</i> )	A143	Red (wintering)	<b>Amber</b> (wintering)

Bird Species	Code	Status BoCCI2 2007-2013*	Status BoCCI3 2014-2019*
Sanderling ( <i>Calidris alba</i> )	A144	Green (wintering)	<b>Green</b> (wintering)
Purple Sandpiper ( <i>Calidris maritima</i> )	A148	Green (wintering)	<b>Green</b> (wintering)
Dunlin ( <i>Calidris alpina</i> )	A149	Amber (breeding/wintering)	<b>Red</b> (breeding/wintering)
Black-tailed Godwit ( <i>Limosa limosa</i> )	A156	Amber (wintering)	<b>Amber</b> (wintering)
Bar-tailed Godwit ( <i>Limosa lapponica</i> )	A157	Amber (wintering)	<b>Amber</b> (wintering)
Curlew ( <i>Numenius arquata</i> )	A160	Red (breeding/wintering)	<b>Red</b> (breeding/wintering)
Redshank ( <i>Tringa totanus</i> )	A162	Red (breeding/wintering)	<b>Red</b> (breeding/wintering)
Greenshank ( <i>Tringa nebularia</i> )	A164	Amber (wintering)	<b>Green</b> (wintering)
(Ruddy) Turnstone ( <i>Arenaria interpres</i> )	A169	Green (wintering)	<b>Green</b> (wintering)
Black Headed Gull ( <i>Chroicocephalus ridibundus</i> )	A179	Red (breeding)	<b>Red</b> (breeding)
Common Gull ( <i>Larus canus</i> )	A182	Amber (breeding)	<b>Amber</b> (breeding)
Lesser Black-backed Gull ( <i>Larus fuscus</i> )	A183	Amber (breeding)	<b>Amber</b> (breeding)
Herring Gull ( <i>Larus argentatus</i> )	A184	Red (breeding)	<b>Red</b> (breeding)
Kittiwake ( <i>Rissa tridactyla</i> )	A188	Amber (breeding)	<b>Amber</b> (breeding)
Sandwich Tern ( <i>Sterna sandvicensis</i> )	A191	Amber (breeding)	<b>Amber</b> (breeding)
Roseate Tern ( <i>Sterna dougallii</i> )	A192	Amber (breeding)	<b>Amber</b> (breeding)
Common Tern ( <i>Sterna hirundo</i> )	A193	Amber (breeding)	<b>Amber</b> (breeding)
Arctic Tern ( <i>Sterna paradisaea</i> )	A194	Amber (breeding)	<b>Amber</b> (breeding)
Guillemot ( <i>Uria aalge</i> )	A199	Amber (breeding)	<b>Amber</b> (breeding)
Razorbill ( <i>Alca torda</i> )	A200	Amber (breeding)	<b>Amber</b> (breeding)
Puffin ( <i>Fratercula arctica</i> )	A204	Amber (breeding)	<b>Amber</b> (breeding)
Kingfisher ( <i>Alcedo atthis</i> )	A229	Amber (breeding)	<b>Amber</b> (breeding)
Chough ( <i>Pyrhocorax pyrrhocorax</i> )	A346	Amber (breeding)	<b>Amber</b> (breeding)
Greenland White-fronted Goose ( <i>Anser albifrons flavirostris</i> )	A395	Amber (wintering)	<b>Amber</b> (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)*<sup>21</sup>

<sup>21</sup> [http://ec.europa.eu/environment/nature/knowledge/rep\\_birds/index\\_en.htm](http://ec.europa.eu/environment/nature/knowledge/rep_birds/index_en.htm)

## **APPENDIX H**

### **Generic Threats and Pressures Considered Relevant to the RSES**

Code	Description
<b>A</b>	<b>Agriculture</b>
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>B</b>	<b>Silviculture, forestry</b>
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
<b>C</b>	<b>Mining, extraction of materials and energy production</b>
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
<b>D</b>	<b>Transportation and service corridors</b>
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
<b>E</b>	<b>Urbanisation, residential and commercial development</b>
E01	Urbanised areas, human habitation
E01.01	Continuous urbanisation
E01.03	Dispersed habitation
E02	Industrial or commercial areas
E02.01	Factory

<b>Code</b>	<b>Description</b>
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
<b>G</b>	<b>Human intrusions and disturbances</b>
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
<b>H</b>	<b>Pollution</b>
H04	Air pollution, air-borne pollutants
H04.02	Nitrogen-input
H04.03	Other air pollution
H06	Excess energy
H07	Other forms of pollution
<b>I</b>	<b>Invasive, other problematic species and genes</b>
I01	Invasive non-native species
I02	Problematic native species
<b>J</b>	<b>Natural System modifications</b>
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
<b>L</b>	<b>Geological events, natural catastrophes</b>
L01	Volcanic activity
L09	Fire (natural)
<b>M</b>	<b>Climate change</b>
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)
<b>XO</b>	<b>Threats and pressures from outside the Member State</b>



## **APPENDIX I**

### **Screening and Assessment of Material Amendments and Other Modifications**

# AMENDMENTS REPORTING

Environmental Assessment – SEA/AA/FRA

MDR1402Rp0018

Amendments  
Reporting  
F01

26<sup>th</sup> June 2019

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# 1 INTRODUCTION

The draft Eastern and Midlands Regional Spatial and Economic Strategy (RSES) went on public display in Q4 of 2018. Following the end of the consultation period in January 2019, the Eastern and Midland Regional Authority (EMRA) reviewed all of the submissions received and a directors Report was prepared. A series of Material Amendments to the draft RSES were then proposed on foot of this work.

As part of the process of developing the RSES, a Strategic Environmental Assessment (SEA), Appropriate Assessment (AA) and Flood Risk Assessment (FRA) are being undertaken. To inform the Material Amendment stage of the RSES, the SEA, AA and FRA teams have assessed the proposed Material Amendments to determine the environmental consequences of the proposed Material Amendments. This document records the assessment and represents the supporting material with respect to Section (24.8)(b) of the Planning and Development Act 2000 (as amended).

The resulting *proposed Material Amendments to the draft Regional Spatial and Economic Strategy 2019-2030 Report* was put on public display between 15<sup>th</sup> March and 12<sup>th</sup> April 2019 along with the accompanying environmental documentation entitled *Environmental Reports*.

The submissions received were reviewed and responded to in the Director's Report and a series of recommendations in relation to the proposed Material Amendments were made i.e. to accept or reject them. The environmental documentation has been subsequently updated to review the status of the final amendments agreed.

## 1.1 Assessment Process

**Chapter 2** identifies the environmental consequences of the proposed material amendments and subsequent minor amendments made to the draft RSES. It should be noted that this document includes screening and assessment of significant impacts in the context of SEA, AA and FRA.

## 2 ASSESSMENT OF AMENDMENTS

### 2.1 Assessment of Amendments to RSO

REF.	Original Draft Text	Proposed Material Amendment	SEA / AA / FRA Assessment of Proposed Amendments to Draft RSES	Final RPO following Minor Non-Material Changes	SEA / AA / FRA Assessment of Proposed Amendments to Draft RSES
<b>Ch 2</b>	<b>Strategic Vision</b>				
RSO3	Support sustainable rural development by managing urban generated growth in areas under strong urban influence and by encouraging sustainable growth in areas that have experienced decline or stagnation.	Support sustainable rural development and <b>strengthen rural networks, economies and communities. Manage</b> urban generated growth in areas under strong urban influence and encourage sustainable growth in areas that have experienced decline or stagnation	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	No further changes proposed	
RSO4	Support the protection of the healthy natural environment to ensure clean air and water for all, and the provision of quality healthcare and services that support human health.	<b>Protect and enhance the quality of our built and natural environment to support active lifestyles including walking and cycling,</b> ensure clean air and water for all and quality healthcare and services that support human health	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	No further changes proposed	
RSO15	Develop and enhance regional accessibility between key regional growth centers to build economic resilience and support strengthened rural communities and economies including the blue-green economy and tourism.	<b>Protect and enhance international connectivity and regional accessibility to support economic development,</b> build economic resilience and support strengthened rural communities and economies including the blue-green economy and tourism.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	No further changes proposed	

## 2.2 Assessment of Amendments to RPO

REF.	Original Draft Text	Proposed Material Amendment	SEA / AA / FRA Assessment of Proposed Amendments to Draft RSES	Final RPO following Minor Non-Material Changes	SEA / AA / FRA Assessment of Proposed Amendments to Draft RSES
<b>Ch 3</b>	<b>Growth Strategy</b>				
3.2	Ensure that all plans, projects and activities requiring consent arising from the Regional Spatial and Economic Strategy are subject to the relevant environmental assessment requirements including SEA, EIA and AA as appropriate.	None	No change	Ensure that all plans, projects and activities requiring consent arising from the Regional Spatial and Economic Strategy are subject to the relevant environmental assessment requirements including SEA, EIA and AA as appropriate. <b>In addition, the future strategic development of settlements throughout the Region will have full cognisance of the legal requirements pertaining to sites of International Nature Conservation Interest.</b>	Change made to ensure there is an overall general objective, applicable to all locations which takes account of the proximity of sites of international nature conservation interests. The additional text is welcomed for RPO 3.2 to add further strength to the policy base for the EMR. No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.
3.4	Local Authorities shall promote an Ecosystem Services Approach in the preparation of statutory land use plans	Move to Chapter 7	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
		Proposals for land use designations and transport infrastructure shall undergo quantitative assessment of their impact on greenhouse gas emissions and shall be approved subject to their consistency with national and regional emissions reductions targets.	The addition of this policy is broadly positive for AQ, CF in particular as it relates to a reduction in GHG emissions. Indirect long-term positive impacts would also be anticipated for W, BFF, S, and PHH in the context of limiting the negative effects of climate change. Tools such as PAS Carbon Management in Infrastructure can be used to assist in the quantification although further guidance may be needed on other appropriate tools. While approval subject to consistency with national and regional emissions reductions targets is positive, it is noted that any new land use designation or transport infrastructure can have localised, regional or national positive/negative impacts. Given that all national and regional emissions targets are for reduction, this could rule out a number of projects that may have an overall positive impact but may score negatively on quantification. It is therefore suggested that the RPO should state the following: and shall be approved subject to their consistency with national and regional emissions reductions policies.	<b>City and County Development Plans shall undergo assessment of their impact on carbon reduction targets and shall include measures to monitor and review progress towards carbon reduction targets.</b>	Wording has been amended to acknowledge forthcoming supporting methodology from government in terms of assessing the impact of city and county development plan strategies on carbon reductions targets and of measures to monitor and review progress towards implementation of those strategies. The amendment takes account of this but maintains the intention to measure and monitor carbon emissions from land use planning. No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.
<b>Ch 4</b>	<b>People and Place</b>				
4.1	In preparing Core Strategies for development plans, Local Authorities shall determine the hierarchy of settlements in accordance with the hierarchy, guiding principles and typology of settlements in the draft RSES, within the population projections set out in the National Planning Framework to ensure that towns grow at a sustainable and appropriate level, by setting out a rationale for land proposed to be zoned for residential, employment and mixed-use development across the Region.	In preparing Core Strategies for development plans, Local Authorities shall determine the hierarchy of settlements in accordance with the hierarchy, guiding principles and typology of settlements in the draft RSES, within the population projections set out in the National Planning Framework to ensure that towns grow at a sustainable and appropriate level, by setting out a rationale for land proposed to be zoned for residential, employment and mixed-use development across the Region. Core Strategies shall also be developed having regard to the infill/brownfield targets set out in National Planning Framework National Policy Objectives 3a-3c.	The following was noted in the SEA for the NPF: Where infill and brownfield sites are utilised this is positive for PHH and MA but has the potential to negatively impact S as sites can have hazardous materials which require remediation. Disturbance of contaminated material may lead to mobilisation of leachates with consequent negative impacts for water, soils and indirectly for BFF. There is also potential for further negative impacts on BFF due to possible spread of Invasive Species. It has been noted in the baseline section that there is only one landfill in Ireland with the ability to process mildly contaminated inert materials. This has implications for the levels of contaminated waste which could be generated through the use of infill and brownfield sites for provision of housing, particularly in urban areas where there have been historic industry uses or old dumping	None	No change

REF.	Original Draft Text	Proposed Material Amendment	SEA / AA / FRA Assessment of Proposed Amendments to Draft RSES	Final RPO following Minor Non-Material Changes	SEA / AA / FRA Assessment of Proposed Amendments to Draft RSES
			<p>sites. There may also be negative impacts to W due to additional demand on water and wastewater services which may already be operating at or above capacity. Water and wastewater services should be delivered on a phased basis to match projected demand. Furthermore the following mitigation was proposed in the NPF for NPO3c: A map is to be 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.</p> <p>At the time of finalisation of the NPF, the DHPLG indicated that this mitigation measure would be addressed through the RSES. At the time of finalisation of the NPF, the DHPLG indicated that this mitigation measure would be addressed through the RSES. It is acknowledged that a new guiding principal has been added [amendment 120] which addresses this requirement.</p>		
4.2	<p>Infrastructure investment and priorities shall be aligned with the spatial planning strategy of the draft RSES. All residential and employment developments should be planned on a phased basis in collaboration with infrastructure providers so as to ensure adequate capacity for services (e.g. water supply, wastewater, transport, broadband) is available to match projected demand for services and that the assimilative capacity of the receiving environment is not exceeded.</p>	<p>Infrastructure investment and priorities shall be aligned with the spatial planning strategy of the draft RSES. All residential and employment developments should be planned on a phased basis in collaboration with infrastructure providers so as to ensure adequate capacity for services (e.g. water supply, wastewater, transport, broadband) is available <b>or planned</b> to match projected demand for services and that the assimilative capacity of the receiving environment is not exceeded.</p>	<p>The addition of "or planned" to RPO 4.2 has the potential direct, indirect and cumulative negative effects on PHH, BFF, W, S and other environmental receptors as it introduces the possibility that developments are permitted before essential services are secured and fully committed. Planned essential services can be held up for many reasons including political, legal, planning and funding reasons among others. Where development on residential and employment lands is advanced without certainty around service delivery, there is an increased risk of direct and indirect environmental impact in the short to medium term until services catch up. It is therefore recommended that the original wording of RPO4.2 is used to reduce the risks in this regard.</p>	Amendment rejected	<p>As per original assessment for RPO 4.2. No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>
4.4	<p>A cross-boundary Joint Urban Area Plan (UAP) shall be prepared by Westmeath County Council and Roscommon County Council to provide a coordinated planning framework to identify and deliver strategic sites and regeneration areas for the future physical, economic and social development of Athlone and the Monksland/Bealnamulla area. The Joint UAP shall ensure that Athlone achieves targeted compact brownfield / infill growth of a minimum of 30%. The Joint UAP shall identify a boundary for the plan area and strategic housing and employment development areas and infrastructure investment requirements to promote greater co-ordination and sequential delivery of serviced lands for development. Future development required to achieve the growth vision for Athlone included in the Joint UAP shall:</p> <p>i. Support the regeneration of underused, vacant or derelict town centre lands for residential</p>	<p>A cross-boundary Joint Urban Area Plan (UAP) shall be prepared by Westmeath County Council and Roscommon County Council <b>in collaboration with the two Regional Assemblies</b> to provide a coordinated planning framework for the future physical, economic and social development of Athlone. <b>The Joint UAP shall identify Athlone's functional urban area and adopt a boundary for the plan area in addition to the identification of strategic housing and employment development areas and infrastructure and investment requirements to promote greater co-ordination and sequential delivery of serviced lands for development, in order to realise Athlone's status as a Regional Growth Centre.</b></p>	<p>As per assessments previously undertaken for Athlone.</p> <p>The importance of Athlone in the context of proximity to significant sites of nature conservation interest recognised for their European and national importance is re-iterated here for clarity. The development of Athlone as a Regional Growth Centre has the potential for negative impacts on BFF and W in particular and as such the joint UAP must recognise and reflect the increased sensitivity of constraint in the area and the risk for adverse effects alone and in combination with other plans and projects on sites of nature conservation interest, their habitats and their species.</p>	<p>A cross boundary <b>statutory</b> Joint Urban Area Plan (UAP) for the Regional Growth Centre of Athlone shall be jointly prepared by Westmeath and Roscommon County Councils in collaboration with EMRA and NWRA. <b>The UAP will support, the development of Athlone as an attractive, vibrant and highly accessible Regional Centre and economic driver for the centre of the Country.</b> The Joint UAP will identify Athlone's functional urban area and outline a boundary for the plan area, in addition to the identification of strategic housing and employment development areas and the infrastructure investment requirements to promote greater coordination and sequential delivery of serviced lands for development.</p>	<p>As per assessment for proposed material amendment.</p> <p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>

REF.	Original Draft Text	Proposed Material Amendment	SEA / AA / FRA Assessment of Proposed Amendments to Draft RSES	Final RPO following Minor Non-Material Changes	SEA / AA / FRA Assessment of Proposed Amendments to Draft RSES
	<p>development to facilitate population growth.</p> <p>ii. Support the renewal of lands at St. Mels and Loughanaskin to optimise the potential of this town centre opportunity to facilitate a mixed residential scheme with supporting services and facilities which will support the commercial core of the town, reinforce neighbourhood identity and enhance the physical character of the area.</p> <p>iii. Support residential development within the Lissywollen South Framework Plan area to develop this strategically located land bank as a highly sustainable and integrated new urban quarter extending from Athlone town centre.</p> <p>iv. Support residential development on existing LAP lands at Curragh Lissywollen, Cornamag, Cornamaddy and Monksland / Bellanamullia.</p>				
		<p><b>Support the regeneration of underused town centre and brownfield / infill lands along with the delivery of existing zoned and serviced lands to facilitate significant population growth and achieve sustainable compact growth target of 30% of all new homes to be built within the existing built up urban area.</b></p>	<p>As per assessments previously undertaken for Athlone.</p> <p>The following was noted in the SEA for the NPF: <i>Where infill and brownfield sites are utilised this is positive for PHH and MA but has the potential to negatively impact S as sites can have hazardous materials which require remediation. Disturbance of contaminated material may lead to mobilisation of leachates with consequent negative impacts for water, soils and indirectly for BFF. There is also potential for further negative impacts on BFF due to possible spread of Invasive Species. It has been noted in the baseline section that there is only one landfill in Ireland with the ability to process mildly contaminated inert materials. This has implications for the levels of contaminated waste which could be generated through the use of infill and brownfield sites for provision of housing, particularly in urban areas where there have been historic industry uses or old dumping sites. There may also be negative impacts to W due to additional demand on water and wastewater services which may already be operating at or above capacity. Water and wastewater services should be delivered on a phased basis to match projected demand.</i></p> <p>Furthermore the following mitigation was proposed in the NPF for NPO3c: <i>A map is to be 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.</i></p> <p>At the time of finalisation of the NPF, the DHPLG indicated that this mitigation measure would be addressed through the RSES. It is acknowledged that a new guiding principal has been added [amendment 120] which addresses this requirement.</p>	None	No change
4.5	Promote the expansion of the existing enterprise ecosystem in Athlone and creation or expansion of distinct industrial specialisms that have	Promote Athlone as a key location for regional economic development supporting the provision of increased employment through the expansion	As per assessments previously undertaken for Athlone.	Promote Athlone as a key location for regional economic development supporting the provision of increased employment through the expansion	Smart Specialisation is based on partnerships between businesses, public entities and knowledge institutions. The addition of this



REF.	Original Draft Text	Proposed Material Amendment	SEA / AA / FRA Assessment of Proposed Amendments to Draft RSES	Final RPO following Minor Non-Material Changes	SEA / AA / FRA Assessment of Proposed Amendments to Draft RSES
	<p>developed through collaboration with the relevant enterprise agencies including AIT, IDA and the Midlands Innovation and Research Centre and support the provision of physical infrastructure and zoned lands to realise this objective. In this regard, recognise the following strategic economic areas:</p> <ul style="list-style-type: none"> <li>i. Garrycastle IDA as a centre of excellence for education, research, enterprise and innovation with potential for clustering with Athlone Institute of Technology</li> <li>ii. Blyry – incorporating indigenous and existing industries</li> <li>iii. Creggan – greenfield site identified for future development of an innovative business park</li> <li>iv. Monksland – support the continued development of the existing industrial sectors at this location.</li> </ul>	<p>of the existing enterprise ecosystem in Athlone and creation or expansion of distinct industrial specialisms that have developed through collaboration with the relevant enterprise agencies including the IDA, Athlone Institute of Technology and the Midlands Innovation and Research Centre and support the provision of physical infrastructure and zoned lands to realise the phased delivery of strategic employment lands in central accessible locations.</p>	<p>The importance of Athlone in the context of proximity to significant sites of nature conservation interest recognised for their European and national importance is re-iterated here for clarity. The development of Athlone as a Regional Growth Centre has the potential for negative impacts on BFF and W in particular and the identification and delivery of future physical, economic and social development must recognise and reflect the increased sensitivity of constraint in the area and the risk for adverse effects alone and in combination with other plans and projects on sites of nature conservation interest, their habitats and their species.</p>	<p>of the existing enterprise ecosystem in Athlone and smart specialisation, that have developed through collaboration with the relevant enterprise agencies including the IDA, Athlone Institute of Technology and the Midlands Innovation and Research Centre and support the provision of physical infrastructure and zoned lands to realise the phased delivery of strategic employment lands in central accessible locations.</p>	<p>reference adds clarity to the RPO but does not alter the intent and previous assessments.</p> <p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>
4.7	<p>Promote Athlone as an urban tourism destination while protecting the natural resources on which it relies with a particular focus on capitalising on the following assets:</p> <ul style="list-style-type: none"> <li>i. Amenity potential of the waterways including the River Shannon and Lough Ree</li> <li>ii. Athlone’s attractive built and cultural heritage including the Western bank of the river as a cultural and tourism quarter</li> <li>iii. Fáilte Ireland Lakelands and Ireland’s Hidden Heartlands designations</li> <li>iv. Existing and planned Greenways and Blueways including the Galway to Dublin Cycleway.</li> </ul>	<p>Support the development of a cross sectoral approach to promote Athlone as a key tourism destination in the Midlands, building on Fáilte Ireland’s Hidden Heartlands brand and the forthcoming Shannon Tourism Masterplan to develop the recreation and amenity potential of waterways including the River Shannon and Lough Ree and the development of a greenway network including the Galway to Dublin Cycleway.</p>	<p>As per assessments previously undertaken for Athlone.</p> <p>The importance of Athlone in the context of proximity to significant sites of nature conservation interest recognised for their European and national importance is re-iterated here for clarity. The development of Athlone as a key tourism destination in the Midlands has the potential for negative impacts on BFF, W, S, LS and CH in particular. These impacts can arise from loss of habitat, disturbance of species from construction and operational activity (e.g. lighting, noise etc.); visual intrusion and alteration of landscape character, disturbance of archaeological or architectural features / material. Tourism plans must recognise and reflect the increased sensitivity of constraint in the area and the risk for adverse effects alone and in combination with other plans and projects on sites of nature conservation interest, their habitats and their species. Any tourism plans should establish potential carrying capacity of habitats and landscape to visitor pressure and include monitoring protocols, in line with RPO6.17 to monitor ongoing effects.</p> <p>As previously indicated in the NIR prepared for the draft RSES, policy wording in the RSES should recognise that at the project consent stage, if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated, then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</p>	None	No change
		<p><b>Support ongoing implementation of flood risk management and flood alleviation measures to facilitate the growth of Athlone subject to the outcome of appropriate environmental assessment and taking account of the proximity of sites of international nature conservation interest.</b></p>	<p>The reference to appropriate environmental assessment is welcomed in this policy. Furthermore it is noted that mitigation measures have been provided as part of the SEA and AA of the Shannon CFRAM and these should be fully implemented to ensure no potential for significant effects on site integrity given the proximity of the Athlone and the network of</p>	<p><b>Support ongoing implementation of flood risk management and flood alleviation measures to facilitate the growth of Athlone.</b></p>	<p>The reference to ...subject to the outcome of appropriate environmental assessment and taking account of the proximity of sites of international nature conservation interest has been removed. It is acknowledged that an additional text has been added to RPO 3.2 above to ensure an overall general objective is presented early in the RSES, applicable to all</p>

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			<p>pathways from Athlone to the European sites along the Shannon.</p> <p>As previously indicated in the NIR prepared for the draft RSES, policy wording in the RSES should recognise that at the project consent stage, if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated, then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</p>		<p>locations which takes account of the proximity of sites of international nature conservation interests. For this reason, no additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>
		<p><i>Support the development of joint Economic, Transport and Retail plans by Westmeath County Council and Roscommon County Council in collaboration with the relevant agencies to facilitate the growth of Athlone as a regional economic driver and to realise its status as a Regional Growth Centre.</i></p>	<p>The importance of Athlone in the context of proximity to significant sites of nature conservation interest recognised for their European and national importance is re-iterated. The development of Athlone as a Regional Growth Centre has the potential for negative impacts on environmental receptors and BFF and W in particular. As such the joint plans must recognise and reflect the increased sensitivity of constraint in the area and the risk for adverse effects alone and in combination with other plans and projects on sites of nature conservation interest, their habitats and their species.</p>	<p>Support the development of joint economic, transport and retail plans by Westmeath and Roscommon County Councils in collaboration with, and where appropriate, relevant Local Authorities and relevant agencies, to facilitate the growth of Athlone as a regional economic driver.</p>	<p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan which includes reference to collaboration with local authorities and deletion of wording relating to status as a regional growth centre. Athlone as a growth centre has already been assessed in preceding versions of the plan and the relative sensitivities have been identified.</p>
4.8	<p>A cross-boundary Joint Urban Area Plan (UAP) shall be prepared by Louth County Council and Meath County Council to provide a coordinated planning framework to identify and deliver strategic sites and regeneration areas for the future physical, economic and social development of Drogheda to ensure it achieves targeted compact brownfield / infill growth of a minimum of 30% and ensure a co-ordinated approach is taken to the future growth and development of the town to ensure that it has the capacity to grow sustainably and secure investment as a Regional Growth Centre on the Dublin – Belfast Corridor. The Joint UAP shall identify a boundary for the plan area and strategic housing and employment development areas and infrastructure investment requirements to promote greater co-ordination and sequential delivery of serviced lands for development. Future development required to achieve the growth vision for Drogheda included in the Joint UAP shall:</p> <ul style="list-style-type: none"> <li>i. Provide for the sustainable, compact, sequential growth and urban regeneration in the town core by promoting the regeneration of underused, vacant or derelict town centre lands for residential development to facilitate population growth.</li> <li>ii. Support the regeneration of the Westgate area of Drogheda’s historic town centre to address vacancy and dereliction in the town core and as an alternative to new development on green field sites.</li> <li>iii. Facilitate the regeneration of lands at McBride Station and environs as an employment hub to capitalise on existing and</li> </ul>	<p>A cross-boundary Joint Urban Area Plan (UAP) shall be prepared by Louth County Council and Meath County Council to provide a coordinated planning framework to identify and deliver strategic sites and regeneration areas for the future physical, economic and social development of Drogheda to ensure it achieves targeted compact brownfield / infill growth of a minimum of 30% and ensure a co-ordinated approach is taken to the future growth and development of the town to ensure that it has the capacity to grow sustainably and secure investment as a Regional Growth Centre on the Dublin – Belfast Corridor. The Joint UAP shall identify a boundary for the plan area and strategic housing and employment development areas and infrastructure investment requirements to promote greater co-ordination and sequential delivery of serviced lands for development. Future development required to achieve the growth vision for Drogheda included in the Joint UAP shall:</p> <ul style="list-style-type: none"> <li>i. Provide for the sustainable, compact, sequential growth and urban regeneration in the town core by promoting the regeneration of underused, vacant or derelict town centre lands for residential development to facilitate population growth.</li> <li>ii. Support the regeneration of the Westgate area of Drogheda’s historic town centre to address vacancy and dereliction in the town core and as an alternative to new development on green field sites.</li> <li>iii. Facilitate the regeneration of lands at McBride Station and environs as an employment hub to capitalise on existing and</li> </ul>	<p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>	<p>A cross boundary statutory Joint Urban Area Plan (UAP) for the Regional Growth Centre of Drogheda shall be jointly prepared by Louth and Meath County Councils in collaboration with EMRA. <i>The UAP will support, the development of Drogheda as an attractive, vibrant and highly accessible Regional Centre and economic driver.</i> The joint UAP will provide a coordinated planning framework to identify and deliver strategic sites and regeneration areas for the future physical, economic and social development of Drogheda to ensure it achieves targeted compact brownfield / infill growth of a minimum of 30% and ensure a coordinated approach is taken to the future growth and development of the town to ensure that it has the capacity to grow sustainably and secure investment as a Regional Growth Centre on the Dublin – Belfast Economic Corridor. The Joint UAP will identify a functional urban area and plan boundary for the plan area and strategic housing and employment development areas and infrastructure investment requirements to promote greater coordination and sequential delivery of serviced lands for development. The RSES envisages a population target of 50,000 is for the entire settlement of Drogheda up to 2031. This includes lands within the combined functional area of the two Local Authorities of Louth and Meath. The preparation and adoption of a statutory Joint Urban Area Plan (UAP) by Louth and Meath County Councils is to be a priority. <i>The joint UAP under agreement of both local authorities, is the appropriate mechanism to determine the functional urban area and plan boundary along with the distribution of</i></p>	<p>It is noted that RPO 3.2 and other similar supporting RPOs will apply to all plans arising from the RSES. As such the distribution of population which should be generally in proportion to existing population levels in each local authority area will be informed by the carrying capacity of the receiving environment and the need to avoid adverse effects on any European site and will have full cognisance of the legal requirements pertaining to sites of conservation interest. This is articulated through the existing RPO base in the draft RSES.</p> <p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>

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	<p>planned public transport infrastructure, including the DART Expansion Programme whilst avoiding development that detracts from the town centre.</p> <p>iv. Provide for redevelopment or renewal of obsolete areas on lands at Mell / North Road.</p>	<p>planned public transport infrastructure, including the DART Expansion Programme whilst avoiding development that detracts from the town centre.</p> <p>iv. Provide for redevelopment or renewal of obsolete areas on lands at Mell / North Road.</p> <p>v. <i>Support the sustainable development of existing zoned lands in the Southern Environs of the town with a particular emphasis on the promotion of the IDA Business Park as an employment hub and the creation of compact, residential communities in key locations in proximity to established residential areas and transport hubs</i></p> <p>vi. <i>Support the implementation of the Urban Design Framework Plan for the Heritage Quarter</i></p>		<p>population which should be generally in proportion to existing population levels in each local authority area. In tandem with the requirements outlined in the Implementation Roadmap for the National Planning Framework the Joint UAP for the Regional Centre of Drogheda should endeavour to support and provide for the following:</p> <p>i. Provide for the sustainable, compact, sequential growth and urban regeneration in the town core by promoting the regeneration of underused, vacant or derelict town centre lands for residential development to facilitate population growth.</p> <p>ii. Support the regeneration of the Westgate area of Drogheda's historic town centre to address vacancy and dereliction in the town core and as an alternative to new development on green field sites.</p> <p>iii. Facilitate the regeneration of lands at McBride Station and environs as an employment hub to capitalise on existing and planned public transport infrastructure, including the DART Expansion Programme whilst avoiding development that detracts from the town centre.</p> <p>iv. Provide for redevelopment or renewal of obsolete areas on lands at Mell / North Road.</p> <p>v. Support the sustainable development of existing zoned lands in the Southern Environs of the town with a particular emphasis on the promotion of the IDA Business Park as a location for economic investment and the creation of compact, residential communities in key locations in proximity to established residential areas and transport hubs</p> <p>vi. Support the implementation of the Urban Design Framework Plan for the Heritage Quarter.</p>	
		<p><i>Enhance Drogheda's role as a strategic employment centre on the Dublin-Belfast Economic Corridor and provide for employment opportunities through identification of suitable sites for new industry including FDI.</i></p>	<p>Given the natural and cultural sensitivities identified in the ER and NIR prepared for the draft plan, this new RPO will require similar mitigation to that already proposed in those documents and repeated below.</p> <p><i>Selection of sites should be supported by a quality site selection process and subject to detailed environmental assessment which is more appropriately addressed at the county level.</i></p> <p><i>While the Drogheda wastewater treatment plant is operating within its design capacity and considered to have sufficient headroom, the plant is listed as a Priority Urban Area and is failing more stringent treatment standards. As such, growth needs to be phased alongside improvements to wastewater treatment.</i></p> <p><i>Drogheda General: The expansion of or relocation of activities associated with ports and marinas will require a feasibility study to be undertaken in the first instance and recognition that in the absence of coastal zone management, there is potential negative impacts to European sites.</i></p>	<p>None</p>	<p>No change</p>

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4.15	<p>An Urban Area Plan (UAP) shall be prepared by Louth County Council for Dundalk to provide a coordinated planning framework to identify and deliver strategic sites and regeneration areas for the future physical, economic and social development of the town to ensure targeted compact growth of a minimum of 30% is achieved. The UAP shall facilitate the sustainable, compact, sequential growth and urban regeneration in the town core by consolidating the built footprint of Dundalk through regeneration of the town centre Core Character Area with a focus on rejuvenation of Clanbrassil Street / St. Nicholas Quarter and development of key town centre infill / brownfield sites in this area. A significant proportion of future urban development shall be accommodated on infill/brownfield sites by encouraging development, including renewal and regeneration of underused, vacant or derelict town centre lands for residential development to facilitate population growth. The UAP shall:</p> <ul style="list-style-type: none"> <li>i. Support development on key town centre infill/brownfield sites include Long Walk Shopping Centre, Carroll's Village Shopping Centre, Williamson's Mall, and Dunne's Park Street</li> <li>ii. Improve accessibility and sustainable mobility in the town centre by enhancing modal choice through integration of rail, bus and taxi services</li> <li>iii. Promote the Seatown / Port Harbour Area for regeneration and repurpose of a water based urban quarter</li> <li>iv. Facilitate Urban Expansion through development of the Mount Avenue masterplan lands.</li> </ul>	<p>An Urban Area Plan (UAP) shall be prepared by Louth County Council for Dundalk to provide a coordinated planning framework to identify and deliver strategic sites and regeneration areas for the future physical, economic and social development of the town to ensure targeted compact growth of a minimum of 30% is achieved. The UAP shall facilitate the sustainable, compact, sequential growth and urban regeneration in the town core by consolidating the built footprint of Dundalk through regeneration of the town centre Core Character Area with a focus on rejuvenation of Clanbrassil Street / St. Nicholas Quarter and development of key town centre infill / brownfield sites in this area. A significant proportion of future urban development shall be accommodated on infill/brownfield sites by encouraging development, including renewal and regeneration of underused, vacant or derelict town centre lands for residential development to facilitate population growth. The UAP shall:</p> <ul style="list-style-type: none"> <li>i. Support development on key town centre infill/brownfield sites include Long Walk Shopping Centre, Carroll's Village Shopping Centre, Williamson's Mall, and Dunne's Park Street</li> <li>ii. Improve accessibility and sustainable mobility in the town centre by enhancing modal choice through integration of rail, bus and taxi services</li> <li>iii. Promote the Seatown / Port Harbour Area for regeneration and repurpose of a water based urban quarter</li> <li>iv. Facilitate Urban Expansion through development of the Mount Avenue masterplan lands.</li> <li>v. Support the implementation of the Dundalk Urban Design Framework Plan (2008) or any update thereof</li> </ul>	<p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>	<p>A cross boundary statutory Urban Area Plan (UAP) shall be prepared by Louth County Council for the Regional Growth Centre of Dundalk in collaboration with the EMRA. <b>The UAP will support the development of Dundalk as an attractive, vibrant and highly accessible Regional Centre and economic driver.</b> The UAP will provide a coordinated planning framework to identify and deliver strategic sites and regeneration areas for the future physical, economic and social development of the town to ensure targeted compact growth of a minimum of 30% is achieved. The UAP shall facilitate the sustainable, compact, sequential growth and urban regeneration in the town core by consolidating the built footprint of Dundalk through regeneration of the town centre Core Character Area with a focus on rejuvenation of Clanbrassil Street / St. Nicholas Quarter and development of key town centre infill / brownfield sites in this area. A significant proportion of future urban development shall be accommodated on infill/brownfield sites by encouraging development, including renewal and regeneration of underused, vacant or derelict town centre lands for residential development to facilitate population growth. The Joint UAP will identify a functional urban area and plan boundary for the plan area and strategic housing and employment development areas and infrastructure investment requirements to promote greater coordination and sequential delivery of serviced lands for development. The RSES envisages a population target of 50,000 is for the entire settlement of Dundalk up to 2031. The preparation and adoption of a <b>statutory Urban Area Plan (UAP) by Louth County Council is to be a priority. The UAP is the appropriate mechanism to determine the functional urban area and plan boundary along with the distribution of population. In tandem with the requirements outlined in the Implementation Roadmap for the National Planning Framework the UAP for the Regional Centre of Dundalk should endeavour to support and provide for the following:</b></p> <ul style="list-style-type: none"> <li>i. Support development on key town centre infill/brownfield sites include Long Walk Shopping Centre, Carroll's Village Shopping Centre, Williamson's Mall, and Dunne's Park Street</li> <li>ii. To enhance accessibility and sustainable mobility within the town centre by improving links between the core and surrounding areas through the further integration of public transport, walking and cycling facilities.</li> <li>iii. Promote the Seatown / Port Harbour Area for regeneration and repurpose of a water based urban quarter</li> <li>iv. Facilitate Urban Expansion through development of the Mount Avenue masterplan lands.</li> <li>v. Support the implementation of the Dundalk Urban Design Framework Plan (2008) or any update thereof.</li> </ul>	<p>It is noted that RPO 3.2 and other similar supporting RPOs will apply to all plans arising from the RSES. As such the distribution of population which should be generally in proportion to existing population levels in each local authority area will be informed by the carrying capacity of the receiving environment and the need to avoid adverse effects on any European site and will have full cognisance of the legal requirements pertaining to sites of conservation interest. This is articulated through the existing RPO base in the draft RSES.</p> <p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>

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4.24	Support the continued development of Swords as part of an emerging 'Green City' concept, building on its strategic location near Dublin Airport and linked to the delivery of Metrolink to provide for high density and people intensive uses in locations that are accessible to quality public transport nodes, existing and planned.	Support the continued development of Swords as a vibrant Key Town with a thriving economy; an integrated public transport network; an attractive and highly accessible built environment with the highest standards of housing, employment, services, recreational amenities and community facilities	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.  Given the proximity of Swords to European sites along the north Dublin coastline, wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.	None	No change
4.25	Future development required to achieve the growth vision for Swords shall: i. Support the regeneration of underused, vacant or derelict town centre lands for residential/mixed use development to facilitate population growth. ii. Provide for the sustainable, compact and sequential infill of yet-to-be developed Masterplan and Local Area Plan zoned lands along the R132 and future MetroLink corridor. iii. Require the preparation of a Local Area Plan at Lissenhall to inform policy for the longer term strategic area of Swords, in accordance with Your Swords: An Emerging City Strategic Vision 2035 or any update thereof.	Support the regeneration of underused town centre lands along with the planned and sequential infill opportunities to provide for high density and people intensive uses in accessible locations that are accessible to high quality transport, existing and planned, and to support the preparation of a Local Area Plan for the strategic landbank at Lissenhall for the longer-term development of Swords	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.  It is however noted that planned services can be held up for many reasons including political, legal, planning and funding reasons among others. Where development on residential and employment lands is advanced without certainty around service delivery, there is an increased risk of direct and indirect environmental impact in the short to medium term until services catch up.  Given the proximity of Swords to European sites along the north Dublin coastline, wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.	None	No change
4.26	Facilitate the strategic regeneration of Swords to increase the resilience of the local economy and provide for an enhanced urban environment with a particular focus on the following key objectives: i. Enhance the identity of the town centre through the development of Swords Civic Centre and Cultural Centre, the delivery of the conservation plan for Swords Castle, and the delivery of an enhanced public realm in Swords Town Centre, in accordance with a new healthy placemaking strategy to provide a prioritised, programmed and impactful package of measures to co-ordinate investment and decision making across multiple stakeholders. ii. Facilitate the creation of a new street fronting the river walk to the west of Main Street and support co-ordinated infill development on key strategic sites along Main Street and North Street. iii. Promote core recreational and amenity spaces, utilising in particular Ward River Valley Park, Swords Cultural Quarter including Town	Facilitate the strategic regeneration of Swords to build on the resilience of the local economy and provide for an enhanced urban environment with a particular focus on the development of Swords Civic Centre and Cultural Centre, the delivery of the conservation plan for Swords Castle, and the delivery of an enhanced public realm in the town centre and to promote recreational and amenity uses in accordance with a healthy placemaking strategy.	As per previous assessment and mitigation proposed in the SEA/AA/FRA for Swords.  Given the proximity of Swords to European sites along the north Dublin coastline, wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.	None	No change

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	Park, Ward River Walk west of Main Street area.				
		Support Swords-Dublin Airport as a key location for airport related economic development and employment provision linked to the protection and enhancement of access to Dublin Airport lands including the delivery of Metrolink.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
		Encourage transition towards sustainable and low carbon transport modes in Swords through the provision of high quality walking and cycling permeability offering direct routes to local destination and public transportation hubs.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
4.27	Support the continued development of Maynooth, co-ordinated with the delivery of strategic infrastructure including DART expansion to support future population growth and build on synergies with Maynooth University to promote research and economic development opportunities.	Support the continued development of Maynooth, co-ordinated with the delivery of strategic infrastructure including pedestrian and cycle linkages within the town and to the Royal Canal Greenway, DART expansion and road linkages forming part of the Maynooth Outer Orbital Route in a manner which supports future development and population growth and builds on synergies with Maynooth University promoting a knowledge-based economy	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
		Support Maynooth as a key town to act as an economic driver for north Kildare and provide for strategic employment at key locations to improve the economic base of the town and provide for an increased number of local jobs.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
		A cross boundary Joint Local Area Plan (LAP) shall be prepared by Kildare County Council and Meath County Council to provide a co-ordinated planning framework for the Maynooth area. The Joint LAP shall identify a boundary for the plan area, strategic housing and employment development areas and infrastructure investment requirements and promote greater co-ordination and sequential delivery of serviced lands for development.	As per assessments previously undertaken for Maynooth. Maynooth is in proximity to significant sites of nature conservation interest recognised for their European and national importance is re-iterated here for clarity. The development of Maynooth has the potential for negative impacts on BFF and W in particular and as such the joint UAP must recognise and reflect the increased sensitivity of constraint in the area and the risk for adverse effects alone and in combination with other plans and projects on sites of nature conservation interest, their habitats and their species.	None	No change
		To promote the consolidation of the town centre with a focus on the regeneration of underused buildings and strategic sites and the establishment of residential uses to encourage greater vibrancy outside of business hours and the enhancement of the public realm.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
4.28	Support the continued development of Bray including the enhancement of town centre functions, increased employment opportunities and the westward extension of the town, linked to the delivery of key infrastructure including Bray-Fassaroe public transport links.	Support the continued development of Bray including the enhancement of town centre functions, development of major schemes at the former Bray golf course and Bray harbour along with increased employment opportunities and co-ordination between Wicklow County Council and transport agencies to facilitate the delivery of key infrastructure required for the westward extension of the town, including Bray-Fassaroe public transport links.	There is potential for direct and indirect negative impacts on BFF and W in particular as a result of the amendments to this RPO. The area surrounding Bray has significant ecological constraints in the form of European and National protected sites. Any developments such as those mentioned must be subject to the outcome of appropriate environmental assessments. Wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated, then the proposals will only make	Support the continued development of Bray including the enhancement of town centre functions, development of major schemes at the former Bray golf course and Bray harbour, along with increased employment opportunities and co-ordination between Wicklow County Council, <a href="#">Dún Laoghaire Rathdown County Council</a> , and the transport agencies to facilitate the delivery of key infrastructure required for the westward extension of the town, including Bray-Fassaroe public transport links <a href="#">and road improvements</a> .	As noted in the proposed material amendment Bray has significant ecological constraints in the form of European and National protected sites. Any developments including road improvements now included must be subject to the outcome of appropriate environmental assessments. No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.

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			provision for the level and location of development for which it can be concluded that there will be no adverse effect.		
		Support the development of Bray as a strategic employment location with a particular focus on attracting high value investment in 'people' based industries at accessible locations, in order to increase the number of local jobs.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
		To promote the consolidation of the town centre with a focus on placemaking and the regeneration of strategic sites to provide for enhanced town centre functions and public realm, in order to increase Bray's attractiveness as a place to live, work, visit and invest in.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
		To support ongoing investment in public transport infrastructure, including the appraisal, planning and design of the LUAS extension to Bray, to ensure its continued renewal, maintenance and improvement to a high level to ensure high quality of frequency, safety, service, accessibility and connectivity. The development of Bray-Fassaroe should be undertaken in collaboration between Wicklow County Council and the transport agencies to ensure the delivery of enabling transportation infrastructure.	There is potential for direct and indirect negative impacts on BFF and W in particular as a result of the amendments to this RPO. The area surrounding Bray has significant ecological constraints in the form of European and National protected sites. Any developments such as those mentioned must be subject to the outcome of appropriate environmental assessments. Wording in the RSES shall recognise that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.	To support ongoing investment in public transport infrastructure, including the appraisal, planning and design of the LUAS extension to Bray, to ensure its continued renewal, maintenance and improvement to a high level to ensure high quality of frequency, safety, service, accessibility and connectivity. The development of Bray-Fassaroe should be undertaken in collaboration between Wicklow County Council, <a href="#">Dún Laoghaire Rathdown County Council</a> and the transport agencies to ensure the delivery of enabling transportation infrastructure.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.
		Encourage transition towards sustainable and low carbon transport modes through the promotion of alternative modes of transport and 'walkable communities' whereby a range of facilities and services will be accessible within short walking or cycling distance	This RPO is broadly positive, particularly with regard to PHH, AQ, CF and MA. Some potential for negative effects on BFF where disturbance may occur from cycling/ walking routes. This can be mitigated by proper route selection.	None	No change
4.29	Support the delivery of the distributor road at Farganstown to release strategic residential and employment lands for development.	Support the delivery of a network of distributor roads and bridges to release strategic residential and employment lands for development and improve connectivity and the efficient movement of people and services in the town	This amendment is directly at odds with the previous proposed RPO and has potential for negative direct and indirect impacts to PHH, AQ, CF, BFF, W, S, LandS and CH to facilitate a network of distributor roads. If there is a genuine desire to shift to low carbon transport modes, identification and development of employment and residential lands must be prioritised on the basis of their suitability for more sustainable transport modes. Recommended that this RPO is not altered in the manner proposed.	Support the delivery of <a href="#">road infrastructure</a> to release strategic residential and employment lands <a href="#">for sustainable development</a> and to improve connectivity and the efficient movement of people and services in the town.	As per assessment of material amendment however it is noted that the reference to a network of roads has been removed and sustainable development has been added. In addition a guiding principle has been added which states:  <i>Where additional road capacity is provided within or around any town which has an objective to cater for traffic that currently uses the road network in central areas and their immediate environs, that this additional capacity would be used for the improvement of the public transport, walking and cycling networks within the towns through the reallocation of road space to these modes.</i>  No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.
		Support the development of strategic employment lands on the Trim Rd in Navan.	The location of the development lands is not clear from the RPO however, it is noted that the	Support the development of strategic employment lands on the Trim Road in Navan,	Additional reference is noted and welcomed as it acknowledges the sensitivities of the area and

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			Trim Road in Navan (most of the R161 directly south of Navan town centre) is in close proximity to the River Boyne and River Blackwater SAC and SPA (River Boyne about 1km to the east and River Boyne/Blackwater confluence about 1.5km to the north). As such any development of strategic employment lands in proximity to the River Boyne and Blackwater SAC/SPA and pNHA should consider all likely significant effects. Furthermore this RPO should state that any such development will be preceded by and subject to the outcome of the planning process and environmental assessments. The River Boyne to the north-east is also a designated nutrient sensitive area due to pressures from Navan WWTP, which, while it is within capacity and passing compliance, is impacting the river, which is currently at Moderate WFD status. As per the assessment in the SEA, further development must ensure that increased load on services does not degrade the water environment.	subject to the outcome of appropriate environmental assessment and the planning process.	the need for careful consideration of the potential of any projects / development to give rise to adverse impacts on an European site and other aspects of the receiving environment. Positive in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.
4.34	Support the use of the Grand Canal for amenity, recreation and sustainable transport purposes.	Support the development of the Grand Canal for amenity, recreation and sustainable transport purposes including the Naas to Sallins and Naas to Corbally harbour greenways and linking these to the national Grand Canal Greenway.	As per previous assessment and mitigation proposed in the SEA ER and NIR for Naas. The additional mention of specific greenway projects to link to the Grand Canal Greenway is positive for PHH, MA, AQ and CF where walking and cycling is prioritised over other modes; however projects should be subject to environmental assessment and route selection as appropriate as they can also give rise to direct and indirect negative effects on W, BFF, S, LS and CH arising from ducting and cable laying along roads, loss of habitat and disturbance of species during construction, disturbance of species from lighting, pedestrians and cyclists etc. It will be necessary to demonstrate further through the plan hierarchy how these features will be delivered while conserving biodiversity.	None	No change
		Regeneration and consolidation of the historic centre to improve the retail and commercial functions of the town core, with enhanced permeability and sustainable mobility within the town centre and improve links between the core and surrounding residential and employment areas through the further development of walking and cycling routes and improved public transport	As per previous assessment and mitigation proposed in the SEA ER, NIR and FRA for Naas. With regard to walking and cycleway links, which are positive overall, the following is also noted for Naas in relation to flooding in general, and particularly if the canal is considered as part of sustainable modes: It should be noted that as acknowledged in the FRMP there is high uncertainty regarding the flood risk in relation to Naas due to poor availability of model calibration events and possible interconnection between fluvial and surface water drainage and canal systems. Prior to the development of this model a cautionary approach should be taken with regards to flood risk and zoning in Naas.	None	No change
		Strengthen the local employment base through the development of MERITS, Millennium Park in the North West Quadrant and the regeneration of underutilised lands including industrial lands in the north east of the town	As per previous assessment and mitigation proposed in the SEA ER, NIR and FRA with particular regard to the FRA which notes that industrial zone areas on the outskirts of the town also fall within Flood Zones A and B.	Strengthen the local employment base including through the development of MERITS, Millennium Park in the North West Quadrant and the regeneration of underutilised lands including industrial lands in the north east of the town.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.



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		Support the delivery of a dedicated public transport interchange in Naas with associated Park and Ride	As no specific location is outlined, the siting of such an interchange should be based on appropriate site/route selection and any environmental assessments as appropriate, given that three 'branches' of the River Boyne and River Blackwater SAC/SPA are within the town centre, and the potential issues with flooding and land use zoning constrained by such. The environmental sensitivities of the area should be duly noted in the RSES to ensure that future site selection has proper regard to protection of the environment.	Support the delivery of <b>new and enhanced</b> public transport infrastructure in Naas <b>and Sallins</b> , including Park and Ride and <b>interchange facilities as identified by the NTA and Kildare County Council</b> .	Broadening of the policy is noted to refer to new and enhanced infrastructure including in Sallins. Reference is also made to interchange facilities as identified by the NTA and Kildare County Council. It is not clear from the wording if these interchange facilities have been identified already and if so the degree to which they have considered likely significant effects on a European site. the assessment of the proposed amendment is again relevant in this case and the commitments of RPO 3.2 is relevant.
		Support an enhanced role and function of Naas as the County town of Kildare, particularly as a hub for high quality employment, residential and amenities.	As per the assessment in the SEA, AA, with particular regard to the FRA which notes that Flood Zones indicate that areas of the town centre and existing residential areas adjacent the Blessington and Dublin Road are at risk from flooding. The flood zones and constraints of the M7 motorway also indicate that Naas can expand predominantly to the south west.	None	No change
4.35	Support an enhanced role and function of Wicklow-Rathnew as the County town, particularly as a hub for employment, training and education.	None	No change	None	No change
4.36	Support Wickow-Rathnew's role in the provision of third level education in association with Institute of Technology Carlow.	Support Wickow-Rathnew's role in the provision of third level education at the Wicklow County Campus Rathnew (in association with Institute of Technology Carlow) and in particular, to support the development of the campus as a hub for the Film Industry and Screen Content Creation Sector	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.		
		To support ongoing investment in rail infrastructure to ensure its continued renewal, maintenance and improvement to a high level to ensure high quality of frequency, safety, service, accessibility and connectivity.	A positive addition with direct and indirect long-term positive impacts for MA and PHH, as well as AQ and CF via access to a high quality train service as an alternate mode to private vehicle. All investment should be subject to the outcome of appropriate planning and environmental assessments.	None	No change
		Support the plan-led development and regeneration of publicly owned land banks in the town for residential, employment, education, community, cultural and recreational opportunities and the consolidation of the town centre and the enhancement and linking of Brownfield and outlying sites to the town centre, with a focus on the regeneration of underused buildings and strategic site	As per previous assessment and mitigation proposed in the SEA ER, NIR and FRA for Longford.  The reference to 'outlying sites to the town centre' is ambiguous in terms of specific locations, so it is highlighted that there are extensive floodplains adjacent to the north-east and western edges of the town.  With the inclusion of reference to enhancement and linking of brownfield, the following is thus noted in the SEA for the NPF: Where infill and brownfield sites are utilised this is positive for PHH and MA but has the potential to negatively impact S as sites can have hazardous materials which require remediation. Disturbance of contaminated material may lead to mobilisation of leachates with consequent negative impacts for water, soils and indirectly for BFF. There is also potential for further negative impacts on BFF due to possible spread of Invasive Species. It has been noted in the baseline section that there is only one landfill in Ireland with the ability	None	No change

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			<p>to process mildly contaminated inert materials. This has implications for the levels of contaminated waste which could be generated through the use of infill and brownfield sites for provision of housing, particularly in urban areas where there have been historic industry uses or old dumping sites.</p> <p>Furthermore the following mitigation was proposed in the NPF for NPO3c: A map is to be 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.</p> <p>At the time of finalisation of the NPF, the DHPLG indicated that this mitigation measure would be addressed through the RSES. It is acknowledged that a new guiding principal has been added [amendment 120] which addresses this requirement.</p>		
		Support Longford Town as a strategic portal to the northwest and south in recognition of its location at the junction of the N55; 'M4 /N4 Dublin/Sligo' and N5; and due to its proximity to the regional growth centre of Athlone.	As per previous assessment and mitigation proposed in the SEA ER, NIR and FRA for Longford.	Support Longford Town as a strategic portal to the northwest and south in recognition of its location at the junction of the N55; M4/N4 Dublin/Sligo and N5; due to its proximity to the regional growth centre of Athlone; <b>and support its role as a strategic employment centre.</b>	As per previous assessment and mitigation proposed in the SEA ER, NIR and FRA for Longford.
		To ensure that the future strategic development of Longford takes account of the close proximity of sites of international nature conservation interest	While the specific inclusion of this policy is to be welcomed, it could be further strengthened by including a commitment to ensure development does not prevent achievement of objectives set for sites of national and international nature conservation interest.	Omitted	The reference to ... <i>the close proximity of sites of international nature conservation interest has been removed.</i> It is acknowledged that an additional text has been added to RPO 3.2 above to ensure an overall general objective is presented early in the RSES, applicable to all locations which takes account of the proximity of sites of international nature conservation interests. For this reason, no additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.
4.44	Promote the plan led development and regeneration of publicly owned land banks in the town for employment, education, community, cultural and recreational opportunities.	Promote the plan led development and regeneration of publicly owned land banks in the town for employment, education, community, cultural and recreational opportunities and to support the economic development and regeneration of the town centre	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
4.45	Support the development and expansion of the Midlands Regional Hospital	Support the development and expansion of the Midlands Regional Hospital including any necessary supporting infrastructure	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
		Support Mullingar's role as an important employment hub by promoting economic development and clustering of related enterprises	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
		To ensure that the future strategic development of Mullingar takes account of the close proximity of sites of international nature conservation interest	While this policy is welcomed, it needs to be further strengthened beyond "take account of". Future strategic development in Mullingar should progress in a manner which does not prevent achievement of objectives set for sites of international nature conservation interest.	Omitted	The reference to ... <i>the close proximity of sites of international nature conservation interest has been removed.</i> It is acknowledged that an additional text has been added to RPO 3.2 above to ensure an overall general objective is presented early in the RSES, applicable to all locations which takes account of the proximity of

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					sites of international nature conservation interests. For this reason, no additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.
4.46	Support Tullamore's role as a tourism hub having regard to its accessibility to key tourist destinations including proximity to natural amenities and recreational opportunities including Grand Canal Greenways and Blueways and outdoor recreation parks.	Support Tullamore's role as a tourism hub and development as a Tourism Destination Town having particular regard to its distilling heritage and industry, accessibility to key tourist destinations including proximity and accessibility to key tourist destinations, natural amenities and recreational opportunities including the Grand Canal Greenways and, Lough Boora Discovery Park, Slieve Bloom Mountains. Also to support Tullamore as a hub for the 'Midlands Cycle destination – Offaly'. Further, to recognise Tullamore's potential as a conferencing and event hub, given the town's central location, accessibility and experience	<p>The addition of other natural heritage areas as tourist destinations to increase accessibility to (Lough Boora, Slieve Bloom Mountains) has potential for negative effects on BFF, W, CH and LS through increased visitor pressure if not sustainably managed. However the positive impacts to PHH, AQ and CF from access to nature and cycleways are also recognised.</p> <p>As noted in the SEA assessment for greenways/blueways, opportunities to add positive impacts for BFF, W and LS should be considered as part of any cycleway development of linkage through inclusion of ecological enhancements. As the Slieve Bloom Mountains are an SAC and SPA, if it appears that any development arising from the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</p> <p>Recommend using similar wording as included in amended RPO 6.16 i.e. "...access should be planned and managed in a manner that protects environmental sensitivities, ecological corridors, and the ability of local infrastructure to support increased tourism"</p>	None	No change
		Support the role of Tullamore as a major employment centre with key assets being its existing positive jobs to resident employees ratio, excellent quality of life and future strategic development sites. Also to support infrastructural development to facilitate this role.	As per previous assessment and mitigation proposed in the SEA ER, NIR and FRA for Tullamore. The provision of infrastructural development will be subject to the outcomes of the planning process and any related environmental assessments.	None	No change
		To support the examination of a University in the Midlands and in particular Tullamore's and Co. Offaly's role in its provision	Broadly positive for PHH but considerations should extend to indirect and cumulative impacts of direct infrastructure needed and supporting facilities e.g. housing needs etc. which could result in indirect and cumulative impacts to environmental receptors. This should be acknowledged.	To examine the need for complementary third level outreach educational facilities at Tullamore, particularly with regard to support for Tullamore Regional Hospital and where appropriate, its continued development as a Teaching/University Hospital, together with potential for linkages to existing and new med-tech businesses and research facilities.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.
		Support the vision and objectives of the J17 National Enterprise Park Masterplan which aims to deliver a viable economic zone within Portlaoise which will accommodate a range of potential businesses and industries whilst having regard to spatial planning, infrastructural, environmental and transportation requirements and compatibility with adjoining land uses	<p>It is noted that the Masterplan is included as part of the Portlaoise LAP 2018-2024 which has undergone SEA, AA and SFRA. The SFRA for this RSES flags that there areas along the banks of each watercourse in the town that lie within Flood Zones A and B, including the National Enterprise Park.</p> <p>It is noted that the Masterplan does contain policies and objectives in respect of natural heritage and environmental protection.</p> <p>While inclusion of the wording "having regard to</p>	Support the vision and objectives of the J17 National Enterprise Park Masterplan, where appropriate, which aims to deliver a viable economic zone within Portlaoise which will accommodate a range of potential businesses and industries whilst having regard to spatial planning, infrastructural, environmental and transportation requirements and compatibility with adjoining land uses. This is subject to compliance with the requirements of the SEA, Habitats and Floods Directive.	The addition of subject to compliance with the requirements of the SEA, Habitats and Floods Directive is welcomed. For this reason, no additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.

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			environmental requirements" can be seen as broadly positive for BFF, W, S, LS and CH, it is vague and lacks any specificity making it aspirational rather than action orientated. It is recommended that this policy is revised to commit to ensuring environmental protection.		
		Support the development and expansion of the Midlands Regional Hospital to be a centre of excellence for Portlaoise and its catchment area	Broadly positive indirect positive impacts for PHH and MA in the medium to long term.	Support the development and expansion of the Midlands Regional Hospital <a href="#">at Portlaoise and its catchment area.</a>	As per previous assessment. No additional effects.
4.49	A cross-boundary Joint Urban Area Plan (UAP) shall be prepared for Carlow by Carlow County Council and Laois County Council having regard to its location within the combined functional area of both local authorities. The Joint UAP shall provide a coordinated planning framework to identify and deliver strategic sites and regeneration areas for the future physical, economic and social development of Carlow to ensure it achieves targeted compact growth of a minimum of 30% and ensure a co-ordinated approach is taken to the future growth and development of the town to ensure that it has the capacity to grow sustainably and secure investment as a Regional Growth Centre. The Joint UAP shall identify a boundary for the plan area and strategic housing and employment development areas and infrastructure investment requirements to promote greater co-ordination and sequential delivery of serviced lands for development. Regard shall be had to the respective housing, retail and other Local Authority strategies that may be in place.	A cross-boundary Joint Local Area Plan (LAP) shall be prepared for Carlow by Carlow County Council and Laois County Council having regard to its location within the combined functional area of both local authorities. The Joint UAP shall provide a coordinated planning framework to identify and deliver strategic sites and regeneration areas for the future physical, economic and social development of Carlow/Craigucullen to ensure it achieves targeted compact growth of a minimum of 30% and ensure a co-ordinated approach is taken to the future growth and development of the combined urban area to ensure that it has the capacity to grow sustainably and secure investment as a Key Town. The Joint LAP shall identify a boundary for the plan area and strategic housing and employment development areas and infrastructure investment requirements to promote greater co-ordination and sequential delivery of serviced lands for development. Regard shall be had to the respective housing, retail and other Local Authority strategies that may be in place	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
		Support development of underused lands along the River Barrow.	This policy has significant potential for direct and indirect negative environmental impacts, particularly for BFF, W, LS and LandS, and indirectly for PHH. While also being a designated SAC and SPA, the SEA ER and NIR assessments flag that the River Barrow has a WFD status of Moderate, while the Burren tributary is at Poor status, with both At Risk of not meeting WFD objectives. The Barrow is also a designated Nutrient Sensitive River from Portarlinton to Graiguenamanagh, and therefore has little to no assimilative capacity to absorb current wastewater or other development pressures.  The SFRA also flags that Any undeveloped sites adjacent to the River Barrow have been zoned for green space and this should be maintained to retain existing floodplain areas.  It is recommended that this policy is removed in light of the environmental sensitivities and in having regard to the recommended mitigation measures.	Support the sustainable development of environmentally sensitive, low intensity amenity development associated with the Barrow Blueway subject to compliance with the Habitats and Birds Directive and Floods Directive.	It is acknowledged that this RPO has been revised substantially to clarify the low intensity nature of the development envisaged and further clarifying that the support is subject to compliance with Habitats and Birds Directive and Floods Directive. This recognises the SEA/AA and FRA concerns about the significant sensitivities in the area. Any further development of this RPO would greatly benefit from further studies to inform the exact nature and intensity that could be accommodated without giving rise to adverse effects. This could be achieved through a coordinated management plan in collaboration between EMRA, the relevant LA, IFI and NPWS that could address the key issues of visitor pressure, supporting infrastructure pressure and management of the spread of invasive species.  The addition of ...subject to compliance with the requirements of the Habitats and Birds Directives and the Floods Directive is welcomed. For this reason, no additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.

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4.50	In Development Plan Policy Local Authorities shall prioritise the regeneration of rural towns and villages through identification of significant ready-to-go regeneration projects for rural villages and rural areas which could harness untapped assets with community and wider private and public sector support and investment including the Rural Regeneration and Development Fund.	In Development Plan Policy Local Authorities shall prioritise the regeneration of rural towns and villages through identification of significant regeneration projects for rural villages and rural areas which could harness untapped assets with community and wider private and public sector support and investment including the Rural Regeneration and Development Fund.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
4.51	In Development Plan Policy Local Authorities shall identify small towns and villages that have the potential for services sites as an alternative to one-off rural housing.	Development Plans should support the development of a “New Homes in Small Towns and Villages” initiative which would augment the delivery of actions by Local Authorities, Irish Water, communities and other stakeholders in the provision of services and serviced sites to create “build your own home” opportunities within the existing footprint of rural settlements to provide new homes to meet housing demand.	The inclusion of this policy is considered positive overall for PHH and MA.	None	No change
4.52	Local Authorities shall identify and provide policies to support and protect existing rural economies such as valuable agricultural lands to ensure sustainable food supply, and to protect the value and character of the open countryside.	Local Authorities shall identify and provide policies to support and protect existing rural economies such as valuable agricultural lands to ensure sustainable food supply, and to protect the value and character of the open countryside and to support the diversification of rural economies to create additional jobs and maximise opportunities in emerging sectors, such as agri-business, energy, tourism, forestry enterprise	It should be noted within this policy that it is subject to the outcomes of the planning process and any environmental assessments as appropriate. This is to recognise the potential for emerging sectors, such as agri-business, energy, tourism, forestry enterprise to give rise to direct and indirect negative impacts on PHH, W, S, LS, CG and BFF if they are promoted in inappropriate locations and without due regard for the sensitivities of the receiving environment.	Local Authorities shall identify and provide policies that recognise the contribution that small towns, villages and rural areas contribute to social and economic wellbeing. As part of this policy provision that seeks to support and protect existing rural economies such as valuable agricultural lands to ensure sustainable food supply, to protect the value and character of open countryside and to support the diversification of rural economies to create additional jobs and maximise opportunities in emerging sectors, such as agri-business, energy, tourism and forestry enterprise is supported.	As per assessment of amendments. No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.
		Support the consolidation of the town and village network to ensure that development proceeds sustainably and at an appropriate scale, level and pace in line with the Core Strategies of the County Development Plans	Positive direct and indirect effects from this policy as it seeks to deliver sustainable development in line with core strategies in CDP. It is noted that core strategies are or will be subject to AA, SEA and SFRA to inform the appropriate levels.	None	No change
		Support the rural economy and initiatives in relation to diversification, agri business, rural tourism and renewable energy so as to sustain the employment opportunities in rural areas	This policy has potential to give rise to short to long term indirect negative effects on BFF, W, S etc through disturbance and intrusion from supporting infrastructure. All such initiatives should be subject to the outcomes of the planning process and any environmental assessments as appropriate.	Support the rural economy and initiatives in relation to diversification, agri business, rural tourism and renewable energy so as to sustain the employment opportunities in rural areas. In keeping with the NPF, the Eastern and Midland Regional Assembly will support the longer term strategic planning for industrial peatland areas. This may include support, where appropriate, for a Transition Team in place and preparation of a comprehensive afteruse framework plan for the peatlands and related infrastructure, which addresses environmental, economic and social issues, including employment and replacement enterprise reflecting the current transition from employment based around peat extraction.	This proposed amendments specifically relate to future uses of industrial peatland areas. Future use of industrial peatlands can include development of wind farms/parks, biomass growth etc. and as such have the potential for significant negative impacts to PHH, BFF, W, LS, LandS and CF despite the focus being on renewables. Without sensitive consideration of what is appropriate for any given site the benefits of renewables development may be offset by other negative effects on the receiving environment. With this in mind, the inclusion of a commitment to prepare a comprehensive after use framework plan for the peatlands and related infrastructure, which addresses environmental, economic and social issues is welcomed and is considered the most appropriate next step to ensure that environmental consequences can be properly analysed with a view to avoiding adverse effects on the receiving environment. This plan must be subject to SEA and AA in keeping with the National Peatlands Strategy which states that potential economic, environmental and social benefits and costs of peatland uses to be considered and applied to

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					policy and land use decisions. This is underpinned by RPO 3.2.
<b>Ch 5</b>	<b>Dublin MASP - 8 RPOs</b>				
5.4	Future development of strategic residential development areas within the Dublin Metropolitan area shall provide for higher densities and qualitative standards as set out in the 'Sustainable Residential Development in Urban Areas'[1], 'Sustainable Urban Housing; Design Standards for New Apartments' Guidelines[2], and Draft 'Urban Development and Building Heights Guidelines for Planning Authorities'.	Future development of strategic residential development areas within the Dublin Metropolitan area shall provide for higher densities and qualitative standards as set out in the 'Sustainable Residential Development in Urban Areas'[1], 'Sustainable Urban Housing; Design Standards for New Apartments' Guidelines[2], and 'Urban Development and Building Heights Guidelines for Planning Authorities'.	No change. Amendment acknowledges that the Building Height Guidelines have been finalised. It is noted that the mitigation measures provided in the SEA ER and NIS for the building height guidelines should be fully implemented.	None	No change
5.5	Future residential development in the Dublin Metropolitan Area shall follow a clear sequential approach, with a primary focus on the consolidation of Dublin and suburbs, supported by the development of Key Metropolitan Towns in a sequential manner as set out in the Metropolitan Area Strategic Plan (MASP) and in line with the overall Settlement Strategy for the RSES. Identification of suitable residential development sites shall be supported by a quality site selection process that addresses environmental concerns.	Future residential development in the Dublin Metropolitan Area shall follow a clear sequential approach, with a primary focus on the consolidation of Dublin and suburbs, and the development of Key Metropolitan Towns <del>as in a sequential manner</del> set out in the Metropolitan Area Strategic Plan (MASP) and in line with the overall Settlement Strategy for the RSES. Identification of suitable residential development sites shall be supported by a quality site selection process that addresses environmental concerns.	Deletion of duplicate reference to sequential approach. No additional likely significant effects in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	Future residential development <b>supporting the right housing and tenure mix</b> within the Dublin Metropolitan Area shall follow a clear sequential approach, with a primary focus on the consolidation of Dublin and suburbs, and the development of Key Metropolitan Towns, as set out in the Metropolitan Area Strategic Plan (MASP) and in line with the overall Settlement Strategy for the RSES. Identification of suitable residential development sites shall be supported by a quality site selection process that addresses environmental concerns.	No additional likely significant effects in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.
5.7	Coordinate across Local Authority boundaries to identify manage and develop regional green infrastructure to enhance strategic connections and develop a regional greenbelt policy in the Dublin metropolitan area.	Coordinate across Local Authority boundaries to identify manage, develop and protect regional green infrastructure to enhance strategic connections and develop a Green Infrastructure policy in the Dublin Metropolitan Area.	Positive additions with potential for enhanced positive effects for BFF, W, S, PHH, AQ, CF and MA in particular if sited sensitively and having regard to sensitive receptors. It is acknowledged that there is potential for cumulative negative effects from GI provision where siting and routing is in conflict with existing nature conservation areas. As such, the policy to follow must ensure that potential for habitat loss and disturbance is addressed at the regional level also.	None	No change
<b>Ch 6</b>	<b>Economy and Employment</b>				
6.1	Support the national economic agencies, Local Enterprises Offices, Regional Action Plan for Jobs implementation committees and Local Authorities with their plans for job creation with an emphasis on: a) an enterprise base with increased productivity and more diversification –including diversification of their markets - with high levels of innovation, skills adaptability, and relatively low costs of doing businesses b) maintaining full-employment with unemployment rates of each Strategic Planning Area not exceeding the State average by more than one percentage point c) applying the guiding principles for strategic employment and investment prioritisation in placemaking for enterprise development presented in this draft RSES.	Support the national economic agencies, Local Enterprises Offices, Regional Enterprise Plan Steering Committees, Local Authorities and other relevant stakeholders, with their plans for job creation and enterprise development with an emphasis on: a) an enterprise base with increased productivity and more diversification –including diversification of their markets - with high levels of innovation, skills adaptability, and relatively low costs of doing businesses b) maintaining full-employment with unemployment rates of each Strategic Planning Area not exceeding the State average by more than one percentage point c) applying the guiding principles for strategic employment and investment prioritisation in placemaking for enterprise development presented in this draft RSES.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change

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6.8	Support Local Authorities to develop sustainable and economically efficient rural economies through initiatives to enhance sectors such as agricultural and food, forestry, fishing and aquaculture, energy and extractive industries, the bio-economy and diversification into alternative on-farm and off-farm activities, while at the same time noting the importance of maintaining and protecting the natural landscape and built heritage.	Support Local Authorities to develop sustainable and economically efficient rural economies through initiatives to enhance sectors such as agricultural and food, forestry, fishing and aquaculture, energy and extractive industries, the bio-economy, tourism, quarrying and mining and diversification into alternative on-farm and off-farm activities, while at the same time noting the importance of maintaining and protecting the natural landscape and built heritage.	A number of sectors were previously outlined in this RPO and the amendment adds specifically tourism and quarrying/ mining. Development of any of these sectors could have positive and negative direct and indirect impacts on BFF, W, LS, CH, AQ, CF and LandS through disturbance to or loss of habitats and/or species, emissions to air and water, disturbance to heritage features, loss of floodplains or impacts to landscape character/setting. It is noted that policy objective relates to development in a sustainable manner "noting the importance of maintaining and protecting the natural landscape and built heritage". As a result many of the environmental receptors for this policy objective for the natural environment are positive. In developing such initiatives, each LA must consider the potential for the initiative to lead to likely significant effects on any European site and where necessary adverse effects on site integrity.	Support Local Authorities to develop sustainable and economically efficient rural economies through initiatives to enhance sectors such as agricultural and food, forestry, fishing and aquaculture, energy and extractive industries, the bio-economy, tourism, <del>quarrying and mining</del> and diversification into alternative on-farm and off-farm activities, while at the same time noting the importance of maintaining and protecting the natural landscape and built heritage.	Deletion noted. No additional likely significant effects in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.
		<p>The Regional Assembly supports the Regional Enterprise Strategies to focus on;</p> <ul style="list-style-type: none"> <li>• Position and support the growth of the Midlands as an advanced manufacturing centre of excellence.</li> <li>• Leverage opportunities in big data and data analytics from iLOFAR.</li> <li>• Ensure that the Midlands is well positioned to address the challenges posed by the transition to a low carbon economy and renewable energy</li> </ul> <p>Increase enterprise engagement in innovation, research and development to ensure Dublin's continued competitiveness and productivity.</p> <ul style="list-style-type: none"> <li>• Build a pipeline of sustainable and scalable start-ups in Dublin and provide quality support</li> <li>• Develop the Mid-East as a hub for the Screen Content Creation Sector</li> <li>• Build an ecosystem framework to support the Agri-food sector in the Mid-East</li> <li>• Develop a network of innovative co-working spaces in the region to mitigate long commuting times, promote remote working opportunities and life-style benefits.</li> </ul>	<p>The purpose of the Enterprise strategies is to drive job creation and support enterprise growth in the region. No specific projects are noted in the RPO but it can be anticipated from the content of the RPO that infrastructure and support services are intended. This has the potential to impact negatively on the receiving environment including BFF, W, S, L, LS, CH as a result of construction and operation. Benefits are also likely for A and CF where reduced community and energy efficiency in buildings can be achieved. Mitigation already included in the SEA and NIR for the RSES are applicable here including:</p> <p>Any plan or project arising from the RSES will be subject to SEA, AA, EIA and EcIA as appropriate as the main tools to ensure future growth and development while maintaining a high quality environment; developments will be phased in line with adequate services, particularly with regard to water and wastewater capacity; and robust site and route selection will be used to avoid unnecessary impact.</p>	<p>The Regional Assembly supports the Regional Enterprise Strategies to focus on; <b>Support a high level of economic success throughout the region by building on local strengths and regional innovation capacity</b> - Position and support the growth of the Midlands as an advanced manufacturing centre of excellence. - Leverage opportunities in big data and data analytics from iLOFAR. - Ensure that the Midlands is well positioned to address the challenges posed by the transition to a low carbon economy and renewable energy</p> <p>Increase enterprise engagement in innovation, research and development to ensure Dublin's continued competitiveness and productivity. - Build a pipeline of sustainable and scalable start-ups in Dublin and provide quality support - Develop the Mid-East as a hub for the Screen Content Creation Sector - Build an ecosystem framework <b>to support the financial services, payments and Agri-food sectors throughout the Region</b> - Develop a network of innovative co-working spaces in the region to mitigate long commuting times, promote remote working opportunities and life-style benefits</p>	No additional likely significant effects in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.
		To support the sustainable development of tourism in the Midlands in line with the strategic objectives of both the Ireland's Ancient East and Ireland's Hidden Heartlands experience brand propositions	<p>Direct positive impacts for PHH and MA from increased tourism opportunities in the medium to long term. However such initiatives can give rise to significant negative effects over the short to longer term for CH, BFF, W, LandS as a result of increased visitor pressures leading to degradation of environmental receptors from trampling, insufficient water / wastewater capacity during high seasons, litter, increased seasonal air pollution from transport etc..</p> <p>As with the WAW initiative, the proposals for the Ancient East and Hidden Heartland should be subject to their own SEA and AA process to ensure the carrying capacity of the receiving environment is aligned and limited to sustainable patterns. Lessons-learned and the</p>	To support the sustainable development of tourism in the Region <del>in the Midlands</del> in line with the strategic objectives of both the Ireland's Ancient East and Ireland's Hidden Heartlands experience brand propositions.	Deletion noted. No additional likely significant effects in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.

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			evidence base will already exist along with ongoing monitoring associated with the WAW, and these learnings should be noted in the RPO.		
6.15	Support working with relevant landowners and recreational/ tourism agencies to increase access to the countryside and coastal areas to ensure maintenance of the existing network.	Support working with relevant landowners and recreational/ tourism agencies to increase access to the countryside and coastal areas to ensure maintenance of the existing network and to seek to develop and add to the offer where appropriate	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
6.16	Support the maintenance of, and enhanced access to, state lands such as National Parks, Forest Parks, Waterways, etc for recreation and tourism purposes.	Support the maintenance of, and enhanced access to state lands such as National Parks, Forest Parks, Waterways, etc., together with Monuments and Historic Properties, for recreation and tourism purposes. access should be planned and managed in a manner that protects environmental sensitivities, ecological corridors, and the ability of local infrastructure to support increased tourism	Positive addition to the policy is noted and welcomed. As per previous assessment and mitigation proposed in the SEA ER and NIR.	Support the maintenance of, and enhanced access to <b>state and semi-state</b> lands such as National Parks, Forest Parks, Waterways, etc., together with Monuments and Historic Properties, for recreation and tourism purposes. Access should be planned and managed <b>in a sustainable manner</b> that protects environmental sensitivities, ecological corridors, and the ability of local infrastructure to support increased tourism.	As per previous assessment and mitigation proposed in the SEA ER and NIR.
		Support the local strategies which are already in place to link the River Shannon Blueway, the Royal and Grand Canal Greenways and the proposed Barrow Blueway right across the Midlands, incorporating the towns of Longford, Athlone, Mullingar, Tullamore and Portarlington	Provision of greenways and blueways may be indirectly negative for BFF; key issues for European Sites include the provision of support infrastructure such as slipways and quays, water pollution from fuel from boats, noise disturbance from 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. The policy base should include a clear objective to prevent the spread of IAS within the region. Opportunities to add positive impacts for BFF, W and LS should be considered as part of any blue/greenway through inclusion of ecological enhancements to the developments. The objective should have regard to the required conservation objectives of European sites, other nature conservation sites, ecological networks, and protected species.	As per previous assessment and mitigation proposed in the SEA ER and NIR.	
		Support Offaly County Council, Bord na Mona and Coillte in the development of the 'Midlands Cycling Destination – Offaly'	Potential for medium to long-term direct positive impacts in AQ, CF, PHH and indirect positive impacts on MA. However, as above, cycleways have the potential for direct and indirect negative impacts on BFF in particular as a result of habitat loss and disturbance from routing and species disturbance and / or loss as a result of disturbance from cyclists and associated parking and service facilities that may be required. A robust feasibility study and route selection is therefore needed to ensure that this RPO does not give rise to negative effects on BFF and W and does not lead to likely significant effects on any European sites or protected species. It is recommended that this RPO includes	None	No change



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			reference to a feasibility study and a route selection.		
6.18	EMRA will work with Local Authorities and Fáilte Ireland to identify Destination Towns within the Region for the prioritisation of investment and supports to drive tourism growth in the Region.	EMRA will work with Local Authorities and Fáilte Ireland to identify a network of destination towns within the Region for the prioritisation of investment and supports to drive tourism growth in the Region, to spread the benefit of tourism throughout the region and to encourage the increase of tourism product development	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
		Support the Departments of Agriculture, Food and the Marine, and Communications Climate Action and Environment to enhance the competitiveness of the agriculture sector with an urgent need for mitigation as well as adaptation measures	The support for the DAFM and DCCAE in relation to enhancing the agri-sector will give rise to indirect positive impacts for PHH and MA. The recognition of the need to urgently address climate mitigation and adaptation in this regard is noted, however the RPO could benefit from prioritising support for real and effective mitigation and adaptation mechanisms for the long-term sustainability of the agri-sector.	Support the Departments of Agriculture, Food and the Marine, and Communications Climate Action and Environment to enhance the competitiveness of the agriculture sector with an urgent need for mitigation as well as <b>real and effective and adaptation mechanisms for the long-term sustainability of the agri-sector.</b>	As per previous assessment. No additional effects from proposed amendment.
6.21	Support RAPJs, LEOs and Local Authorities to collaborate with the Regional Skills Fora managers, Education and Training Boards and local stakeholders to address skills shortages and lifelong learning challenges in the Region.	None	No change	None	No change
6.22	Support and foster the collaboration of industry and research to identify areas of research, development and innovation, and to identify projects for funding.	None	No change	None	No change
		Support community and adult education providers who are already providing formal and non-formal education to targeted disadvantaged groups and who have already identified the barriers to participation in lifelong learning, such as childcare, transport and rural isolation to increase participation rates and support progression into further education and employment	Direct and indirect positive impacts in the short, medium and long term for PHH and MA in particular.	None	No change
6.28	EMRA will support the construction of a regional brand that is consistent with, and complementary to, current local and national branding, to promote the Region domestically and abroad.	None	No change	None	No change
		Support Local Authorities in the design, development and roll-out of social enterprise practices, with a strong emphasis on collaboration	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
6.32	Support enterprise agencies, RAPJs, LECs, Regional Skill fora and local stakeholders on their introduction of contingency plans and pilot projects based on the strengths of the Region to counteract the effects from industrial decline and potential external shocks in the Region. This may include lifelong learning programmes, appropriate business supports and upskilling to facilitate moving to alternative sectors in the locality or region.	Support enterprise agencies, RAPJs, LECs, Regional Skill fora and local stakeholders on their introduction of contingency plans and pilot projects based on the strengths of the Region to counteract the effects from industrial decline and potential external shocks in the Region. This may include lifelong learning programmes, appropriate business supports and upskilling to facilitate moving to alternative sectors in the locality or region.	The inclusion of the Regional Transition Team is positive will be a long-term direct positive impact for PHH, as it supports opportunities and economic mitigation resulting from planned job losses at Bord na Móna.	Support enterprise agencies, RAPJs, LECs, Regional Skill fora and local stakeholders on their introduction of contingency plans and pilot projects based on the strengths of the Region to counteract the effects from industrial decline and potential external shocks in the Region. This may include lifelong learning programmes, appropriate business supports and upskilling to facilitate moving to alternative sectors in the locality or region, <b>for example the Bord na Mona Regional Transition Team for a comprehensive after use framework plan for the peatlands.</b>	Amendment is an example provided for clarity. No additional impacts.
<b>Ch 7</b>	<b>Environment and Climate</b>				
7.5	EMRA shall work with coastal stakeholders to support the sustainable development of the	EMRA shall work with coastal stakeholders to support the sustainable development of the	No additional likely significant effects (either positive or negative) in respect of the	None	No change

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	national Fishery Harbour Centre in Howth and the sustainable growth of the seafood sector in the Region, to ensure that marine resources are sustainably managed and that planned activities on land do not adversely affect the marine economy and environment.	national Fishery Harbour Centre in Howth and the sustainable growth of the seafood and on-shore aquaculture sector in the Region, and to ensure that marine resources are sustainably managed and that planned activities on land do not adversely affect the marine economy and environment.	SEA/AA/FRA from this proposed alteration to the draft plan.		
7.10	Support the implementation of the Water Framework Directive in achieving and maintaining at least good environmental status for all water bodies in the Region and to ensure alignment between the core objectives of the Water Framework Directive and other relevant Directives, River Basin Management plans and Local Authority Development Plans.	Support the implementation of the Water Framework Directive in achieving and maintaining at least good environmental status for all water bodies in the Region and to ensure alignment between the core objectives of the Water Framework Directive and other relevant Directives, River Basin Management plans and Local Authority land use Plans.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
7.11	Local Authorities shall incorporate into the development of local planning policy and decision making any measures for the continued protection of areas with high ecological status in the Region and for mitigation of threats to waterbodies identified as 'At Risk' as part of a catchment-based approach in consultation with the relevant agencies. This shall include recognition of the need to deliver efficient wastewater facilities with sufficient capacity and thus contribute to improved water quality in the Region.	For water bodies with 'high ecological status' objectives in the Region, Local Authorities shall incorporate measures for both their continued protection and to restore those water bodies that have fallen below high ecological status and are 'At Risk' into the development of local planning policy and decision making any measures for the continued protection of areas with high ecological status in the Region and for mitigation of threats to water bodies identified as 'At Risk' as part of a catchment-based approach in consultation with the relevant agencies. This shall include recognition of the need to deliver efficient wastewater facilities with sufficient capacity and thus contribute to improved water quality in the Region	It should be noted that a significant proportion of water bodies are under the risk category of Review, such that while many of these water bodies may currently have Good status, there are pressures which may or are likely to cause a deterioration in the future should trends not stabilise or reverse, or are awaiting the outcomes of measures which have already been applied. While it is a positive and welcome addition to highlight the need to protect our High status water bodies, it is just as important to maintain and prevent the deterioration of those water bodies under Review.  No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
7.18	Work with local authorities and state agencies to promote the development of improved visitor experiences and facilities in the Wicklow National Park	Work with local authorities and state agencies to promote the development of all aspects of park management in the Wicklow National Park and the Slieve Bloom Mountains.	The addition of Slieve Bloom Mountains is noted, however unlike the Wicklow Mountains, this park/Nature Reserve has no Park Management Plan. It would be a positive policy addition to, in order to promote all aspects of park management, to specifically also support the development of a Management Plan for Slieve Bloom, and an update to the Wicklow Mountains Management Plan which is out of date (2005-2009). This would assist in formalising and capturing the key issues and visitor pressures, and which highlights clear lines of responsibility, outlines the protection objectives for the European Sites and protected habitats and species, and sets out how these may be managed synergistically with amenity and tourism.  No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
7.20	Promote the development of improved visitor experiences, nature conservation and sustainable development activities within the Dublin Bay Biosphere.	Promote the development of improved visitor experiences, nature conservation and sustainable development activities within the Dublin Bay Biosphere in cooperation with the Dublin Bay UNESCO Biosphere Partnership.	Positive clarification on cooperation. No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change

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		Develop guidance for assessment of proposed land zonings in order to achieve appropriate riparian setback distances that support the attainment of high ecological status for water bodies, the conservation of biodiversity and good ecosystem health, and buffer zones from flood plains.	This new RPO will give rise to direct and indirect medium to long-term positive impacts for W and BFF in particular. Positive in terms of alignment with other related environmental legislation including Water Framework Directive, Habitats Directive and floods Directive. A reference to the forthcoming RBMP guidelines would be a positive addition to this RPO.  Further to consultation feedback it is also recommended that habitat mapping in the coastal zone is essential to ensuring the long term sustainable strategic development in the Dublin Metro area. A separate RPO should be included for coastal and marine waters.	Support the development of guidance for assessment of proposed land zonings in order to achieve appropriate riparian setback distances that support the attainment of high ecological status for water bodies, the conservation of biodiversity and good ecosystem health, and buffer zones from flood plains.	The change in language reflects that guidelines are in preparation by other sectors of government, notably DHPLG in relation to compliance in WFD. This is considered the most appropriate avenue to follow and as such develop has been amended to support for those forthcoming guidelines.
7.23	Promote the development of a sustainable Strategic Greenway Network of national and regional routes, with a number of high capacity flagship routes that can be extended and /or linked with local Greenways and other cycling and walking infrastructure.	Promote the development of a sustainable Strategic Greenway Network of national and regional routes, with a number of high capacity flagship routes that can be extended and /or linked with local Greenways and other cycling and walking infrastructure, notwithstanding that capacity of a greenway is limited to what is ecologically sustainable.	As per assessment and mitigation in SEA ER and NIR. Positive clarification on carrying capacities is welcomed.	None	No change
7.27	Support collaboration between Local Authorities and relevant stakeholders and the development of partnership approaches to integrated peatland management that incorporate any relevant policies and strategies such as the Bord na Mona Biodiversity Plan 2016-2021 and the national Climate Mitigation and Adaptation Plans. This shall include support for the rehabilitation and/or re-wetting of suitable peatland habitats.	Support collaboration between Local Authorities, the Transition Team and relevant stakeholders and the development of partnership approaches to integrated peatland management that incorporate any relevant policies and strategies such as the Bord na Mona Biodiversity Plan 2016-2021 and the national Climate Mitigation and Adaptation Plans. This shall include support for the rehabilitation and/or re-wetting of suitable peatland habitats.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	Support collaboration between Local Authorities, the Bord na Mona Transition Team and relevant stakeholders and the development of partnership approaches to integrated peatland management for a just transition that incorporate any relevant policies and strategies such as the Bord na Mona Biodiversity Plan 2016-2021 and the national Climate Mitigation and Adaptation Plans. This shall include support for the rehabilitation and/or re-wetting of suitable peatland habitats.	The reference to a “just transition” is noted. In keeping with commitments in chapter 4, there is a commitment to prepare a comprehensive after use framework plan for the peatlands and related infrastructure, which addresses environmental, economic and social issues is welcomed and is considered the most appropriate next step to ensure that environmental consequences can be properly analysed with a view to avoiding adverse effects on the receiving environment. This plan must be subject to SEA and AA in keeping with the National Peatlands Strategy which states that potential economic, environmental and social benefits and costs of peatland uses to be considered and applied to policy and land use decisions. This is underpinned by RPO 3.2.
7.29	Within one year of the publication of the RSES, the Climate Action Regional Office’s shall compile a greenhouse gas emissions inventory for the Region to allow for planning of strategic mitigation action through a Regional Decarbonisation Plan. The Climate Action Regional Office’s shall track the success of the Plan through annual inventories completed each year. Annual reporting of the inventories and critical analysis of the proposed measures will be undertaken to track progress within the Region and to track progress with national targets on a regional basis.	OMIT	The SEA recommends that this RPO is NOT omitted. Without generating an inventory in the first place it will not be possible to carry out the next RPO which is based on that inventory. If the CARO is not the correct owner of the action to generate the inventory, then the policy should be amended to clarify who and how it is to be generated.	Omit	With reference to RPO 7.30 and the amendments proposed it is accepted that this RPO can be omitted without adverse effects.
7.30	On publication of the first regional emission inventory, the EMRA in conjunction with the Climate Action Regional Office’s shall identify the sectoral emissions and assign a series of sectoral emissions reductions targets for each sector within the Regional Decarbonisation	On publication of the first regional emission inventory, the EMRA in conjunction with appropriate stakeholders shall identify the sectoral emissions and assign a series of sectoral emissions reductions targets for each sector within the Regional Decarbonisation	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	Within 1 year of carrying out a regional emissions assessment, EMRA shall compile and publish an emissions inventory and, in collaboration with the relevant Departments and agencies, agree emissions reductions targets in accordance with agreed national sectoral plans	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.

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	Plan. These emissions reductions targets will be based on an aggregate 40% reduction in greenhouse gas emissions by 2030 in line with the EU 2030 Framework.	Plan. These emissions reductions targets will be based on an aggregate 40% reduction in greenhouse gas emissions by 2030 in line with the EU 2030 Framework.		and to support an aggregate 40% reduction in greenhouse gas emissions by 2030 in line with the EU 2030 Framework.	
7.31	Local Authorities shall develop, adopt and implement local climate action strategies which shall assess local vulnerability to climate risks, quantify the emissions produced within their jurisdictions, and identify, cost and prioritise adaptation actions in accordance with the guiding principles of the National Adaptation Framework.	With the assistance and support of the Climate Action Regional Offices, Local Authorities shall develop, adopt and implement local climate adaptation and mitigation strategies which shall address issues including local vulnerability to climate risks and identify and prioritise actions, in accordance with the guiding principles of the National Adaptation Framework, National Mitigation Plan.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
7.32	Climate regional action offices shall provide guidelines and support to the Local Authorities on the development, adoption and implementation of local climate action strategies (both mitigation and adaption). These guidelines shall include the specific actions and obligations and timescales for same that must be undertaken by the Local Authorities to comply with national policy.	Climate regional action offices shall provide support to the Local Authorities on the development, adoption and implementation of local climate action strategies (which can address both adaptation and mitigation). Ongoing support should relate to the specific actions, and obligations and timescales for same that must be undertaken by the Local Authorities in accordance with local climate change adaptation strategies and compliance with national policy.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
7.34	EMRA shall, in conjunction with Local Authorities in the Region, identify Strategic Energy Zones as areas suitable for larger energy generating projects, the role of community and micro energy production in urban and rural settings and the potential for renewable energy within industrial areas. The Strategic Energy Zones for the Region will ensure all environmental constraints are addressed in the analysis. A regional landscape strategy should be developed to support delivery of projects within the Strategic Energy Zones.	EMRA shall, in conjunction with Local Authorities in the Region, identify Strategic Energy Zones as areas suitable for larger energy generating projects, the role of community and micro energy production in urban and rural settings and the potential for renewable energy within industrial areas. The Strategic Energy Zones for the Region will ensure all environmental constraints are addressed in the analysis. A regional landscape strategy should be developed to support delivery of projects within the Strategic Energy Zones.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	EMRA shall, in conjunction with Local Authorities in the Region, identify Strategic Energy Zones as areas suitable for larger energy generating projects, the role of community and micro energy production in urban and rural settings and the potential for renewable energy within industrial areas. The Strategic Energy Zones for the Region will ensure all environmental constraints are addressed in the analysis. A regional landscape strategy <b>could</b> be developed to support delivery of projects within the Strategic Energy Zones.	The lack of a landscape strategy will continue to be an issue for delivery of energy projects into the future. The dilution of the commitment is considered unnecessary. The commitment in RPO 7.25 is noted however.
		That the RSES prepare policies/ objectives that anticipate the identification of "Projected Climate Impact Areas"	The RPO would benefit from greater clarity on the scope and function intended. It is not clear if it is intended that the RSES will include such policies or if the intention is for the EMRA to prepare them in due course.	Rejected. Having regard to a changing policy context and in recognition that there is no established methodology for the identification and mapping of 'Projected Climate Impact Areas', EMRA are currently unable to provide sufficient clarity on the scope and function in this area to warrant an RPO in the strategy. It is considered important, however, that reference be made in the narrative that EMRA will support possible forthcoming projects and related mapping in this area which, when developed, will provide a useful tool to inform future land use plans and policy.	No likely significant effects.
<b>Ch 8</b>	<b>Connectivity</b>				
8.1	The integration of transport and land use planning in the Region shall be informed by the guiding principles expressed in the transport strategy of the draft RSES.	The integration of transport and land use planning in the Region shall be consistent with the guiding principles expressed in the transport strategy of the draft RSES.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
8.4	Land use plans within the GDA shall demonstrate a consistency with the NTA's Transport Strategy for the Greater Dublin Area and plans outside of the GDA shall be informed by the guiding principles expressed in the draft RSES.	Land use plans within the GDA shall demonstrate a consistency with the NTA's Transport Strategy for the Greater Dublin Area and plans with or outside of the GDA shall be consistent with the guiding principles expressed in the draft RSES.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change

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		To promote the use of mobility management and travel plans to bring about behaviour change and more sustainable transport use.	This is a positive and welcome policy inclusion which should have direct and indirect positive medium to long-term impacts on PHH, as well as AQ and CF to address the behavioural aspects of modal choice.	None	No change
		To prepare a regional strategy for freight transport in collaboration with the relevant transport agencies and the other Assemblies	This is a positive policy addition with positive impacts mainly for MA, particularly if all modal options are considered and promoted. Such a strategy should undergo SEA and AA to ensure that strategies are guided toward sustainable outcomes in the long-terms and avoid unnecessary impacts on the receiving environment.	To support the preparation of a regional strategy for freight transport in collaboration with the relevant transport agencies and the other Assemblies.	Amendments reflect that.....
8.15	Support the National Aviation Strategy and the growth of Dublin Airport to include its status as a secondary hub airport, in particular the provision of a second runway and improved terminal facilities. Improved access to Dublin Airport is supported, including MetroLink and improved bus services as part of BusConnects, 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.	Support the National Aviation Policy for Ireland and the growth of movements and passengers at Dublin Airport to include its status as a secondary hub airport. In particular, support the provision of a second runway, improved terminal facilities and other infrastructure.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
8.16	Improve cycle access to Dublin Airport and surrounding employment locations.	Improved access to Dublin Airport is supported, including Metrolink and improved bus services as part of BusConnects, 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. Improve cycle access to Dublin Airport and surrounding employment locations. Support appropriate levels of car parking and car hire parking.	This RPO is significantly broadened in scope from cycle access. Reference is now included to Metrolink, BusConnects, rail and car including parking. This access has the potential for significant cumulative impacts in and around Dublin airport with direct and indirect negative impacts from landuse change, land loss, habitat loss, emissions to water and air, changes to surface water regimes, changes to flooding, increase noise among others. An integrated plan, prioritising public transport offers the best potential to reduce negative effects. It is therefore recommended that a mobility management plan be developed for Dublin Airport as part of the Dublin Airport LAP or similar process in cooperation with daa, Fingal CC and the relevant transport agencies to ensure that the short, medium and long-term needs of the transport network in the area are not compromised. Such a plan should clearly show how growth of the airport and associated developments such as Airport City which predict significant additional demand are to be sustainably accommodated in the existing and permitted transport capacity while also protecting the receiving environment.	Improved access to Dublin Airport is supported, including Metrolink and improved bus services as part of BusConnects, connections from the road network from the west and north <del>and in the longer term</del> . Improve cycle access to Dublin Airport and surrounding employment locations. Support appropriate levels of car parking and car hire parking.	Removal of timeline will not result in additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.
8.17	Spatial planning policies in the vicinity of the airport shall recognise and reflect the airport noise zones associated with Dublin Airport. In particular within the Inner Airport Noise Zone provision of new residential and/or other noise sensitive development shall be actively resisted. Within the outer noise zone provision of new residential and/or other noise sensitive development shall be strictly controlled.	Spatial planning policies in the vicinity of the airport shall recognise and reflect the airport noise zones associated with Dublin Airport. In particular within the Inner Airport Noise Zone provision of new residential and/or other noise sensitive development shall be actively resisted. Within the outer noise zone provision of new residential and/or other noise sensitive development shall be strictly controlled and require appropriate levels of noise insulation in all cases.	Medium to long term positive impacts for PHH and MA by the inclusion of noise considerations as part of developments.	Spatial planning policies in the vicinity of the airport shall <b>protect the operation of Dublin Airport in respect to its growth and the safe navigation of aircraft from non-compatible land uses</b> . Policies shall recognise and reflect the airport noise zones associated with Dublin Airport. Within the Inner Airport Noise Zone, provision of new residential and/or other noise sensitive development shall be actively resisted. Within the Outer Noise Zone, provision of new residential and/or other noise sensitive	Additional wording in respect of growth and safe navigation at the airport are overall positive for MA and PHH. No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.

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				development shall be strictly controlled and require appropriate levels of noise insulation in all cases.	
<b>Ch 9</b>	<b>Quality of Life</b>				
9.12	Local Authorities shall, in their Core Strategies, set out specific objectives relating to the delivery of development on urban/brownfield regeneration sites in line with the Guiding Principles set out in the Draft RSES.	Local Authorities shall, in their Core Strategies, identify regeneration areas within existing urban settlements and set out specific objectives relating to the delivery of development on urban infill and brownfield regeneration sites in line with the Guiding Principles set out in the RSES and to provide for increased densities as set out in the 'Sustainable Residential Development in Urban Areas', 'Sustainable Urban Housing; Design Standards for New Apartment's Guidelines, and the 'Urban Development and Building Heights Guidelines for Planning Authorities.	Amendment acknowledges that the Building Height Guidelines have been finalised. It is noted that the mitigation measures provided in the SEA ER and NIS for the building height guidelines should be fully implemented.	None	No change
9.14	Support the implementation of Local Authority Local Economic and Community Plans (LECPs) and through the use of spatial planning policies, to seek to reduce the number of people in or at risk of poverty and social exclusion in the Region.	Support the implementation of Local Authority Local Economic and Community Plans, in collaboration with Local and Economic Development Committees (LDCs) and through the use of spatial planning policies, to seek to reduce the number of people in or at risk of poverty and social exclusion in the Region.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
9.16	In areas where significant new housing is proposed, an assessment of need regarding schools provision should be carried out and statutory plans shall designate new school sites at accessible, pedestrian, cycle and public transport friendly locations.	In areas where significant new housing is proposed, an assessment of need regarding schools provision should be carried out in collaboration with the Department of Education and Skills and statutory plans shall designate new school sites at accessible, pedestrian, cycle and public transport friendly locations.	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
		To support the role of Higher Education Institutions and Educational Training Boards in addressing skills shortages and life-long learning needs in the region, and to support the further development of multi-campus Technological Universities to drive research and innovation.	A positive and welcome policy addition with medium to long-term positive impacts for PHH and neutral for other environmental receptors as it addresses skills and education.	None	No change
		In planning for the creation of healthy and attractive places, there is a need to provide alternatives to the car and to prioritise and promote cycling and walking in the design of streets and public spaces. Local authorities shall have regard to the Guiding Principles for 'Healthy Placemaking' and 'Integration of Land Use and Transport' as set out in the RSES and to national policy as set out in 'Sustainable Residential Development in Urban Areas' and the 'Design Manual for Urban Roads and Streets (DMURS)	Overall a positive and welcome policy addition as it seeks to prioritise and promote walking and cycling, and therefore has positive direct and indirect impacts for PHH, MA, AQ, and longer-term for CF. Potential for biodiversity enhancements should also be explored.	None	No change
		To support Local Authorities in the development of regional scale Open Space and Recreational facilities particularly those close to large or growing population centres in the region.	Policy is positive for PHH and MA, but has the potential for direct and indirect impacts on BFF, LS, W CH and LandS where greenfield or other natural spaces outside of settlement envelopes are utilised for amenity over spaces which are already in built-up areas. Development or services which are targeted to large open areas should seek to incorporate ecological improvements and to include protection and preservation of important ecological features and stepping stones such as treelines,	None	No change

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			hedgerows, ponds, riparian zones, wild meadows etc. in order to prevent habitat fragmentation, degradation, or loss of/disturbance to species (e.g. pollinators). Such large open spaces may also serve other important ecosystem functions such as drainage and natural flood protection. Many towns are also located in or adjacent to European and national sites. Such proposals should be subject to robust site selection and environmental assessments.		
		Support the sensitive reuse of protected structures	Generally positive with regards to use of existing building stock, and inclusion of 'sensitive reuse' is welcomed.	None	No change
<b>Ch 10</b>	<b>Infrastructure</b>				
10.9	EMRA supports the servicing of rural villages (serviced sites) to provide an alternative to one-off housing in the countryside.	EMRA supports the servicing of rural villages (serviced sites) to provide an alternative to one-off housing in the countryside in line with RPO 4.51	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	None	No change
		Work closely with Irish Water to revise the Draft Investment Plan (2020- 2024) and subsequent investment plans to align the supply of water services with the settlement strategy and objectives of the EMRA Regional Spatial and Economic Strategy.	Direct and indirect positive short, medium and long term impacts for BFF, W, PHH and MA which will come from alignment of settlement strategies with IW investment planning.	None	No change
		Delivery and phasing of services shall be subject to the required appraisal, planning and environmental assessment processes and shall avoid adverse impacts on the integrity of the Natura 2000 network.	Direct and indirect short, medium and long term positive impacts for BFF, W and S in particular.	None	No change
		Local Authority Core Strategies shall demonstrate compliance with DHPLG Water Services Guidelines for Planning Authorities and demonstrate phased infrastructure led growth to meet demands on the water supply, suitability of new and/or existing drinking water sources (for example hydromorphological pressures) and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network.	Positive policy inclusion. A reference to the forthcoming RBMP guidelines would be a further positive addition to this RPO.	Local Authority Core Strategies shall demonstrate compliance with DHPLG Water Services Guidelines for Local Authorities and demonstrate phased infrastructure – led growth that is commensurate with the carrying capacity of water services and prevent adverse impacts the integrity of water dependent habitats and species within the Natura 2000 network.	Amended wording now makes references to the RBMP Guidelines and include specific reference to preventing adverse impacts to the Natura 200 network. No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.
		Encourage the development of a new rural settlement investment approach, coordinating Irish Water, Local Authority, developer and community led solutions to ensuring that sustainable water services solutions are progressively implemented	Direct and indirect positive short, medium and long term impacts for BFF, W, PHH and MA which will come from alignment of settlement strategies with IW investment planning.	None	No change
		Local Authorities and Irish Water should work together to examine significant raw water sources which may be made redundant by the Water Supply Project for the Eastern and Midlands Region with a view to reserving and protecting them for future back up or 'windfall' type economic development opportunities where high water use is required	The environmental sensitivities of the proposed Water Supply Project for the Eastern and Midlands Region have been documented in the SEA and AA which were undertaken on the initial plan phase. The project is now moving through planning and more detailed survey and analysis will be undertaken to support the AA and EIA of the scheme. At present, the project does not have planning. As previously noted in the SEA process, alternative supplies should be investigated in the short to medium term to ensure that alternatives exist should difficulties be encountered with the main alternative.	None	No change
10.15	Support and facilitate the development of enhanced electricity and gas supplies, and	Support and facilitate the development of enhanced electricity and gas supplies, and	No additional likely significant effects (either positive or negative) in respect of the	None	No change

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	associated networks, to serve the existing and future needs of the Region and facilitate new transmission infrastructure projects that might be brought forward in the lifetime of this Strategy including the delivery of the necessary integration of transmission network requirements to facilitate linkages of renewable energy proposals to the electricity transmission grid in a sustainable and timely manner subject to appropriate environmental assessment and the planning process.	associated networks, to serve the existing and future needs of the Region and facilitate new transmission infrastructure projects that might be brought forward in the lifetime of this Strategy including the delivery of the necessary integration of transmission network requirements to facilitate linkages of renewable energy proposals to the electricity and gas transmission grid in a sustainable and timely manner subject to appropriate environmental assessment and the planning process	SEA/AA/FRA from this proposed alteration to the draft plan.		
10.20	Development Plans shall identify how waste will be reduced, in line with the principles of the circular economy and how remaining quantum of waste will be managed and shall promote the inclusion in developments of adequate and easily accessible storage space that supports the separate collection of dry recyclables and food	Development Plans shall identify how waste will be reduced, in line with the principles of the circular economy, facilitating the use of materials at their highest value for as long as possible and how remaining quantum of waste will be managed and shall promote the inclusion in developments of adequate and easily accessible storage space that supports the separate collection of dry recyclables and food and shall take account of the requirements of the Eastern-Midlands Region Waste Management Plan	Positive policy additions promoting long-lasting materials and welcomed inclusion of reference to the Eastern-Midlands RWMP. It is noted that the RWMP has undergone SEA and AA and mitigation measures were identified. These should be fully implemented as part of this policy.	None	No change
<b>Ch 11</b>	<b>All Island Cohesion</b>				
11.1	In co-operation with relevant departments in Northern Ireland, the Eastern and Midlands Regional Assembly will support mutually beneficial policy development and activity in the areas of spatial and infrastructure planning and related spheres.	In co-operation with relevant departments in Northern Ireland, the Eastern and Midlands Regional Assembly will support mutually beneficial policy development and activity in the areas of spatial and infrastructure planning, economic growth and related spheres.	No change	In co-operation with relevant departments in Northern Ireland, the Eastern and Midlands Regional Assembly, and where appropriate in association with the Northern and Western Regional Assembly, will support mutually beneficial policy development and activity in the areas of spatial and infrastructure planning, economic growth and related spheres.	No additional likely significant effects (either positive or negative) in respect of the SEA/ AA/ FRA from this proposed alteration to the draft Plan.



### 2.3 Assessment of Other Aspects of the RSES

REF.	Original Draft Text	Proposed Material Amendment	SEA / AA / FRA Assessment of Proposed Amendments to Draft RSES	Final RPO following Minor Non-Material Changes	SEA / AA / FRA Assessment of Proposed Amendments to Draft RSES
Ch 3	<b>Growth Strategy (5 RPOs)</b>				
	Amend Overview of Growth Strategy, to include additional bullet point	Support the transition to low carbon, climate resilient and environmentally sustainable region	Additional bullet point adds further focus to key environmental issues, already articulated throughout the process. Positive effects in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.		
	Amend Table 3.1 Asset Based Criteria Approach. Amend 'Natural Capital' text under 'As expressed in Settlement Strategy' column, to read as follows;	Integration of recommendations and proposed mitigation measures, arising from SEA/AA/FRA underpinned by a regional Green Infrastructure and ecosystem services approach.	Explicit reference to integration of recommendations and proposed mitigation measures from SEA/AA/FRA is positive. Positive effects in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.		
	New Growth Enablers for the Region, to read as follows;	<ol style="list-style-type: none"> <li>Promote <b>global connectivity and regional accessibility</b> as part of an integrated land use and transport strategy, with a focus on protecting national assets and enhanced inter-regional connectivity.</li> <li>Support the future success of <b>Dublin as Ireland's leading global city of scale</b> by better managing strategic assets to increase opportunity and sustain national economic growth and competitiveness.</li> <li>Deliver strategic development areas identified in the Dublin <b>Metropolitan Area Strategic Plan (MASP)</b> to ensure a steady supply of serviced development lands to support Dublin's sustainable growth</li> <li>Facilitate collaboration to support the development of the <b>Dublin-Belfast Economic Corridor</b>, to drive synergy in the Drogheda-Dundalk-Newry cross border network and strengthen economic links with the South East extending to Rosslare Europort</li> <li>Target significant growth in the <b>Regional Growth Centres</b> of Athlone, Drogheda and Dundalk to enable them to act as regional drivers, with a focus on improving local economies and quality of life to attract investment and the preparation of Urban Area Plans (UAPs).</li> <li>Promote <b>compact urban growth</b> by targeting a greater proportion of future housing development, up to 50% of housing built in in Dublin and up to 30% of housing built in other settlements, to be accommodated within and close to the existing built up footprints.</li> <li>Embed a <b>network of Key Towns</b> throughout the Region, which have the capacity to deliver sustainable compact growth and employment for their catchments in tandem with enabling public transport, infrastructure and services.</li> <li>Promote <b>balanced growth</b> in a limited number of economically active settlements which have the identified capacity and potential for moderate growth.</li> <li>Focus on <b>consolidation and targeted 'catch up' investment</b> to support self-sustaining local employment and in services and amenities in places that have experienced rapid commuter driven population growth.</li> </ol>	<p>The new growth enablers presented in the RSES articulate a more focussed summary of the RPOs as already assessed as part of the draft RSES.</p> <p>The RSES explicitly states that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</p> <p>This statement is accompanied by RPOs 3.2 and 3.3 detailing the requirements for environmental assessment of all plans, projects and activities including SEA, EIA and AA as appropriate and that identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.</p> <p>RPO 7.16 states: Support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the Region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and Local Authority Development Plans.</p> <p>RPO 4.2 states: Infrastructure investment and priorities shall be aligned with the spatial planning strategy of the draft RSES. All residential and employment developments should be planned on a phased basis in collaboration with infrastructure providers so as to ensure adequate capacity for services (e.g. water supply, wastewater, transport, broadband) is available to match projected demand for services and that the assimilative capacity of the receiving environment is not exceeded.</p> <p>RPOs 7.12, 7.13, 7.14 and 7.15 deal specifically with the requirements around Flood Risk to ensure compliance with national guidelines and in respect</p>	<p>6. Promote compact urban <b>growth to realise targets of at least 50%</b> of all new homes to be built, <b>to be within or contiguous to the existing built up area of Dublin city and suburbs and a target of at least 30% for other urban areas.</b></p> <p>8. Promote balanced growth in a limited number of economically active settlements which have the identified capacity and potential for <b>self-sustaining growth.</b></p> <p>9. <b>Promote targeted</b> 'catch up' investment to support self-sustaining local employment, and in services, <b>sustainable transport</b> and amenities in places that have experienced rapid commuter driven population growth.</p>	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.

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		<p>10. Promote regeneration and revitalisation of <b>small towns and villages</b> and support local enterprise and employment opportunities to ensure their viability as service centres for their surrounding rural areas</p> <p>11. Support <b>rural areas</b> by harnessing natural resources to develop renewables, recreation and tourism opportunities including green infrastructure planning and the development of an integrated network of greenways, blueways and peatways.</p>	<p>of managing and reducing flood risk and the protection of environmentally sensitive sites and habitats.</p> <p>Further, the RSES will include an Appendix identifying key aspects of the environmental profile of all the Regional Growth Centres and Key Towns which will inform future decision-making for project/plans.</p> <p>A suite of Guiding Principles in the RSES further aid plan preparation and decision making in the region.</p> <p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>		
	<p>Amend Growth Enablers for Dublin City &amp; Metropolitan Area, expand enablers to read as follows;</p>	<ol style="list-style-type: none"> <li>To sustainably manage Dublin's growth as critical to Ireland's competitiveness, achieving growth of 1.4 million people in Dublin City and Suburbs and 1.65 million people in the Dublin Metropolitan Area by 2031.</li> <li>To realise ambitious compact growth targets of at least 50% of all new homes to be built, to be within or contiguous to the existing built up area of Dublin and a target of 30% for other metropolitan settlements, with a focus on healthy placemaking and improved quality of life</li> <li>To deliver strategic development areas identified in the MASP, located at key nodes along high-quality public transport corridors in tandem with the delivery of infrastructure and enabling services to ensure a steady supply of serviced sites for housing.</li> <li>To increase employment in strategic locations, with a focus on re-intensification and regeneration of lands within the M50, and providing for people intensive employment at other sustainable locations near high quality public transport nodes, building on commercial and research synergies in proximity to large employers and activating strategic sites to strengthen the local employment base in commuter towns.</li> <li>Enhance co-ordination across Local Authorities and relevant agencies to promote more active land management and achieve compact growth targets through the development of infill, brownfield and public lands, with a focus on social as well as physical regeneration and improved sustainability to include district heating and water conservation.</li> <li>Protect and improve access to the global gateways of Dublin Airport and Dublin Port for the region and to serve the Nation, and safeguard and improve regional accessibility and service by rail, road and communication, with a key focus the Dublin-Belfast Corridor.</li> </ol>	<p>The new growth enablers presented in the RSES articulate a more focussed summary of the RPOs as already assessed as part of the draft RSES.</p> <p>The RSES explicitly states that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</p> <p>This statement is accompanied by RPOs 3.2 and 3.3 detailing the requirements for environmental assessment of all plans, projects and activities including SEA, EIA and AA as appropriate and that identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.</p> <p>RPO 7.16 states: Support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the Region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and Local Authority Development Plans.</p> <p>RPO 4.2 states: Infrastructure investment and priorities shall be aligned with the spatial planning strategy of the draft RSES. All residential and employment developments should be planned on a phased basis in collaboration with infrastructure providers so as to ensure adequate capacity for services (e.g. water supply, wastewater, transport, broadband) is available to match projected demand for services and that the assimilative capacity of the receiving environment is not exceeded.</p>	<ol style="list-style-type: none"> <li>To realise ambitious compact growth targets of at least 50% of all new homes to be built, to be within or contiguous to the existing built up area of Dublin <b>city and suburbs and a target of at least 30%</b> for other metropolitan settlements, with a focus on healthy placemaking and improved quality of life</li> <li>To deliver strategic development areas identified in the MASP, located at key nodes along high-quality public transport corridors in tandem with the delivery of infrastructure and enabling services to ensure a steady supply of serviced sites <b>and to support accelerated delivery</b> of housing.</li> <li>To increase employment in strategic locations, providing for people intensive employment at other sustainable locations near high quality public transport nodes, building on commercial and research synergies in proximity to large employers, <b>industry clusters and smart specialisation and activating strategic sites</b> to strengthen the local employment base in commuter towns.</li> <li>Enhance co-ordination across Local Authorities and relevant agencies to promote more active land management and achieve compact growth targets through the development of infill, brownfield and public lands, with a focus on social as well as physical regeneration and improved sustainability <del>to include district heating and water conservation.</del></li> <li>Protect and improve access to the global gateways of Dublin Airport and Dublin Port for the region and to serve the Nation, and safeguard and improve regional accessibility and service by rail, road and communication, with a key focus on the Dublin-Belfast <b>Economic Corridor.</b></li> </ol>	<p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>

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			<p>RPOs 7.12, 7.13, 7.14 and 7.15 deal specifically with the requirements around Flood Risk to ensure compliance with national guidelines and in respect of managing and reducing flood risk and the protection of environmentally sensitive sites and habitats.</p> <p>Further, the RSES will include an Appendix identifying key aspects of the environmental profile of all the Regional Growth Centres and Key Towns which will inform future decision-making for project/plans.</p> <p>A suite of Guiding Principles in the RSES further aid plan preparation and decision making in the region.</p> <p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>		
	<p>Amend Growth Enablers for the Core Region, expand enablers to read as follows;</p>	<ol style="list-style-type: none"> <li>To promote continued growth at more sustainable rates, while providing for increased employment and improved local economies, services and functions to allow towns become more self-sustaining and to create the quality of life to attract investment.</li> <li>Drogheda to realise its potential to grow to city scale and secure investment to become a self-sustaining Regional Growth Centre on the Dublin-Belfast Corridor, driving synergies between the Drogheda - Dundalk - Newry cross border network.</li> <li>Commensurate population and employment growth in Key towns, coupled with investment in enabling transport, infrastructure and services to facilitate the achievement of compact growth targets of at least 30% of all new homes to be built, within the existing built up area of settlements.</li> <li>'Catch up' investment to promote consolidation and improvement in the sustainability of those areas that have experienced significant population growth but have a weak level of services and employment for their residents.</li> <li>Diversification and specialisation of local economies with a focus on place making and urban regeneration to create the quality of life to attract FDI and indigenous investment and increase high value knowledge-based employment including second site and relocation opportunities.</li> <li>Promote the region for tourism, leisure and recreational activities including development of an integrated greenway network while ensuring that high value assets and amenities are protected and enhanced.</li> </ol>	<p>The new growth enablers presented in the RSES articulate a more focussed summary of the RPOs as already assessed as part of the draft RSES.</p> <p>The RSES explicitly states that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</p> <p>This statement is accompanied by RPOs 3.2 and 3.3 detailing the requirements for environmental assessment of all plans, projects and activities including SEA, EIA and AA as appropriate and that identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.</p> <p>RPO 7.16 states: Support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the Region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and Local Authority Development Plans.</p> <p>RPO 4.2 states: Infrastructure investment and priorities shall be aligned with the spatial planning strategy of the draft RSES. All residential and employment developments should be planned on a phased basis in collaboration with infrastructure</p>	<ol style="list-style-type: none"> <li>Drogheda to realise its potential to grow to city scale and secure investment to become a self-sustaining Regional Growth Centre on the Dublin-Belfast <b>Economic</b> Corridor, driving synergies between the Drogheda - Dundalk - Newry cross border network.</li> <li>Diversification and specialisation of local economies with a focus on <b>clustering, smart specialisation</b>, place making and urban regeneration to create the quality of life to attract FDI and indigenous investment and increase high value knowledge-based employment including second site and relocation opportunities.</li> </ol>	<p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>

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			<p>providers so as to ensure adequate capacity for services (e.g. water supply, wastewater, transport, broadband) is available to match projected demand for services and that the assimilative capacity of the receiving environment is not exceeded.</p> <p>RPOs 7.12, 7.13, 7.14 and 7.15 deal specifically with the requirements around Flood Risk to ensure compliance with national guidelines and in respect of managing and reducing flood risk and the protection of environmentally sensitive sites and habitats.</p> <p>Further, the RSES will include an Appendix identifying key aspects of the environmental profile of all the Regional Growth Centres and Key Towns which will inform future decision-making for project/plans.</p> <p>A suite of Guiding Principles in the RSES further aid plan preparation and decision making in the region.</p> <p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>		
	<p>Amend Growth Enablers for the Gateway Region, expand enablers to read as follows;</p>	<ol style="list-style-type: none"> <li>1. Support continued growth of Athlone, with a focus on quality of life and securing the investment to fulfil its role as a key regional centre and economic driver in the centre of Ireland</li> <li>2. Support compact growth in the regional growth centre of Dundalk to grow to city scale, capitalising on its location on the Dublin – Belfast Corridor to drive the linkage between Dundalk and Newry to strengthen cross border synergy in services and functions.</li> <li>3. ‘Catch up’ investment to promote consolidation and improvement in the sustainability of those areas that have experienced significant population growth but have a weak level of services and employment for their residents.</li> <li>4. Regeneration of small towns and villages, with a focus on the identification of rural town, village and rural regeneration priorities to bring vibrancy to these areas.</li> <li>5. Diversification and specialisation of local economies including sustainable farming and food production, tourism, marine, energy and renewables, bio economy and circular economy, with a focus on publicly owned peatlands in the midlands, to support a managed transition and realise the benefits of green technologies.</li> <li>6. Promote the region as a key destination for tourism, leisure and recreation activities and support the development of an integrated</li> </ol>	<p>The new growth enablers presented in the RSES articulate a more focussed summary of the RPOs as already assessed as part of the draft RSES.</p> <p>The specific reference to publicly owned peatlands in no. 5 is noted. It is acknowledged that peatlands are important ecosystems offering significant benefits for biodiversity as well as offering key ecosystem services such as regulation of climate, water filtration, economic benefits (e.g. energy horticulture sectors), landscape and recreation.</p> <p>The addition of the reference in the key enabler refers to the need to harness the potential of renewable energy in the region looking to publicly owned peat extraction areas as opportunities to promote the creation of replacement greener enterprises notwithstanding the role intact bogs play in carbon sequestration in the first place.</p> <p>EMRA has committed to developing an ecological resource map for the region. This will include designated and undesignated peatlands. The purpose of the resource map is to take a first step in establishing a better understanding of the regional ecological resources and the connectivity that exists between them. This can then be used to better inform decision making across the region. The RSE has already committed, through RPO3.2, to <i>Ensure that all plans, projects and</i></p>	<ol style="list-style-type: none"> <li>2. Support compact growth in the regional growth centre of Dundalk to grow to city scale, capitalising on its location on the Dublin – Belfast Economic Corridor to drive the linkage between Dundalk and Newry to strengthen cross border synergy in services and functions.</li> <li>5. Diversification and growth of smart specialisation of local economies with a strong focus on clustering including sustainable farming and food production, tourism, marine, energy and renewables, bio economy and circular economy, with a focus on publicly owned peatlands in the midlands, to support a ‘Just’ transition and realise the benefits of green technologies.</li> <li>6. Promote the region as a key destination for tourism, leisure and recreation activities and support the development of an integrated network of greenways, blueways and peatways while ensuring that high value assets and amenities are protected and enhanced.</li> </ol>	<p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>

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		<p>network of greenways, blueways and peatways while ensuring that high value assets and amenities are protected and enhanced</p>	<p><i>activities requiring consent arising from the Regional Spatial and Economic Strategy are subject to the relevant environmental assessment requirements including SEA, EIA and AA as appropriate.</i> Furthermore RPO 3.3 states: <i>Identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.</i></p> <p>The RSES explicitly states that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</p> <p>RPO 7.16 states: Support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the Region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and Local Authority Development Plans.</p> <p>RPO 4.2 states: Infrastructure investment and priorities shall be aligned with the spatial planning strategy of the draft RSES. All residential and employment developments should be planned on a phased basis in collaboration with infrastructure providers so as to ensure adequate capacity for services (e.g. water supply, wastewater, transport, broadband) is available to match projected demand for services and that the assimilative capacity of the receiving environment is not exceeded.</p> <p>RPOs 7.12, 7.13, 7.14 and 7.15 deal specifically with the requirements around Flood Risk to ensure compliance with national guidelines and in respect of managing and reducing flood risk and the protection of environmentally sensitive sites and habitats.</p> <p>Further, the RSES will include an Appendix identifying key aspects of the environmental profile of all the Regional Growth Centres and Key Towns which will inform future decision-making for project/plans.</p> <p>A suite of Guiding Principles in the RSES further aid plan preparation and decision making in the region including specific principles for peatland development.</p>		

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<b>Ch 4</b>	<b>People and Place (86 RPOs)</b>				
	Amend Table 4.1, as follows;	<p><b>New;</b></p> <ul style="list-style-type: none"> <li>Headings for 'Medium to Large Towns' to read i) Moderate Growth Towns and ii) Consolidation Towns</li> </ul> <p><b>Omit;</b></p> <ul style="list-style-type: none"> <li>Population thresholds for 'small towns and villages' and rural areas.</li> </ul>	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.		
	Amend Guiding Principles for Core Strategies. From Chapter 3 - to be relocated in Chapter 4 Expand existing principles no.1-5 and include new principles no. 6-9, to read as follows;	<p>Local Authorities, in developing their Core Strategies and settlement hierarchies will consider the following growth enablers for every part of the Region to meet its potential including;</p> <ol style="list-style-type: none"> <li><b>Economic Growth</b> – Harness opportunities for economic growth by supporting synergies between talent and place, building on identified assets to strengthen enterprise ecosystems and provide quality jobs. Re-intensify employment within existing urban areas, complemented by strategic employment growth in the right locations and diversification of local and rural economies to better withstand economic shocks and sustain national growth.</li> <li><b>Align population, employment and housing growth</b> – Divergence between the places people live and work leads to long-distance commuting and congestion, which is having a negative impact on quality of life. To address this, promote sustainable growth in the right locations and 'catch up' investment and consolidation in local services, amenities and employment in areas that have experienced large scale commuter driven housing development.</li> <li><b>Compact sustainable growth</b> – Promote compact, sequential and sustainable development of urban areas from large to small to realise targets of at least 50% of all new homes to be built, to be within or contiguous to the existing built up area in Dublin city and suburbs and a target of at least 30% for other urban areas. Support co-ordination across Local Authorities and agencies to promote active land management and better use of under-utilised, brownfield and public lands.</li> <li><b>Regeneration and Development</b> – Identify significant ready-to-go regeneration projects in the existing built areas of our cities, towns, villages as well as rural regeneration opportunities, which could leverage private and public-sector support and investment, including NPF and European funding with a focus on social as well as physical regeneration.</li> </ol>	<p>The new growth enablers presented in the RSES articulate a more focussed summary of the RPOs as already assessed as part of the draft RSES.</p> <p>The RSES explicitly states that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</p> <p>This statement is accompanied by RPOs 3.2 and 3.3 detailing the requirements for environmental assessment of all plans, projects and activities including SEA, EIA and AA as appropriate and that identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.</p> <p>RPO 7.16 states: Support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the Region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and Local Authority Development Plans.</p> <p>RPO 4.2 states: Infrastructure investment and priorities shall be aligned with the spatial planning strategy of the draft RSES. All residential and employment developments should be planned on a phased basis in collaboration with infrastructure providers so as to ensure adequate capacity for services (e.g. water supply, wastewater, transport, broadband) is available to match projected demand for services and that the assimilative capacity of the receiving environment is not exceeded.</p> <p>RPOs 7.12, 7.13, 7.14 and 7.15 deal specifically with the requirements around Flood Risk to</p>	<p>6.Dublin-Belfast <b>Economic</b> Corridor - Safeguard and improve accessibility and service by rail, road and communication between Dublin and Belfast and drive cross border networks between Drogheda, Dundalk and Newry. Post – Brexit, consideration should be given to a process that can establish protocols for environmental protection and movement of people and goods.</p> <p>9.Collaboration – The Assembly will foster collaboration in the allocation of funds to maximise the value for money and delivery of RSES policy and to promote enhanced collaboration between local and regional stakeholders in relation to enterprise and employment, transport, education, retail and service delivery and in the preparation of Local Transport Plans and Urban Area Plans (UAP). There will be a need to co-ordinate the sources of funding of infrastructure, including community facilities that will be located within Joint Urban <b>Area</b> Plans.</p>	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.

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		<p>5. <b>Strategic connectivity</b> – Protect and enhance global connectivity including the TEN-T network to ensure the best use of existing and planned transport infrastructure, safeguard national assets and improve sustainable mobility. Enhance regional accessibility as part of an integrated land use and transport strategy to enable the development of designated towns on strategic and public transport corridors and in tandem with enabling infrastructure.</p> <p>6. <b>Dublin Belfast Corridor</b> - Safeguard and improve accessibility and service by rail, road and communication between Dublin and Belfast and drive cross border networks between Drogheda, Dundalk and Newry. Post – Brexit, consideration should be given to a process that can establish protocols for environmental protection and movement of people and goods.</p> <p>7. <b>Healthy Placemaking</b> - To realise sustained economic growth and employment including the integration of better urban design, public realm, amenities and heritage to create attractive places to live, work, visit and invest in. Focus on placemaking to create attractive and sustainable communities to support active lifestyles including walking and cycling.</p> <p>8. <b>Climate Action</b> – to accelerate a transition to a greener, low carbon and climate resilient region with focus on energy transition, carbon sequestration and reduced travel demand through the promotion of sustainable settlement patterns. Support the Climate Action Regional Offices and Local Authorities in their implementation of climate strategies.</p> <p>9. <b>Collaboration</b> – The Assembly will foster collaboration in the allocation of funds to maximise the value for money and delivery of RSES policy and to promote enhanced collaboration between local and regional stakeholders in relation to enterprise and employment, transport, education, retail and service delivery and in the preparation of Local Transport Plans and Urban Area Plans (UAP). There will be a need to co-ordinate the sources of funding of infrastructure, including community facilities that will be located within Joint Urban Plans.</p>	<p>ensure compliance with national guidelines and in respect of managing and reducing flood risk and the protection of environmentally sensitive sites and habitats.</p> <p>Further, the RSES will include an Appendix identifying key aspects of the environmental profile of all the Regional Growth Centres and Key Towns which will inform future decision-making for project/plans.</p> <p>A suite of Guiding Principles in the RSES further aid plan preparation and decision making in the region.</p> <p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>		
	<p>Amend Section 4.3 to include additional guidance that reads as follows;</p>	<p>Core Strategies should apply prioritisation measures rather than de-zoning of land where a surplus of lands is identified in existing plans with regard to the NPF Implementation Roadmap up to 2031. In preparing Core Strategies account should also be given to the consideration of sequential lands which are suitable for the delivery of housing but may not be forthcoming in the Plan period having regard to 2031 Roadmap targets, subject to proper planning and sustainable development.</p>	<p>Prioritisation of lands which are adequately is welcomed as it aligns with national policy and also prevents potential for negative effects on AQ, W, S, BFF and other receptors as a result of pollution. The opportunity should be taken when reviewing core strategies to provide for protection and / enhancement of BFF and the Natura 2000 network in particular rather than holding on to all zonings, some of which will present difficulties to develop in the future given pathways for impact. This would represent proper planning and sustainable development.</p>		
	<p>Amend Guiding Principles for Athlone Joint Urban Area Plan (UAP). Decouple from RPO 4.4 to</p>	<p>The RSES envisages a population target of 30,000 is for the entire settlement of Athlone up to</p>	<p>As previously assessed in the ER, the Joint Area Action Plan will be subject to its own</p>	<p>The RSES envisages a population target of 30,000 is for the entire settlement of Athlone up to</p>	<p>No additional likely significant effects (either positive or negative) in respect of the</p>

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	<p>include as standalone Guiding Principles, expanded to read as follows:</p>	<p>2031. This includes lands within the combined functional area of the two Local Authorities of Westmeath and Roscommon. The preparation and adoption of a Joint Urban Area Plan (UAP) shall be a priority for Westmeath and Roscommon County Council. The joint UAP under agreement of both local authorities is the appropriate mechanism to determine the functional urban area and plan boundary along with the distribution of population which should be generally in proportion to existing population levels in each local authority area. The Joint UAP should also support and provide for the following:</p> <ol style="list-style-type: none"> <li>1. A strategic vision for the future development of Athlone as a Regional Growth Centre including the development of critical mass and reflect its role as a regional driver</li> <li>2. A boundary for the plan area to support the achievement of compact growth targets with a minimum of 30% of new homes to be built within the existing built up area, supported by the large scale delivery of existing Local Area Plan (LAP) lands at Curragh Lissywollen, Cornamagh, Cornamaddy and Monksland / Bellanamullia</li> <li>3. Preparation of a joint Economic Strategy to promote increased employment and enterprise opportunities in Athlone, and to facilitate enhanced co-ordination between local authorities, enterprise agencies and regional stakeholders to support the phased delivery of serviced employment lands at Garrycastle IDA, Blyry, Creggan and Monksland.</li> <li>4. The regeneration of underused, vacant or derelict town centre lands and the consolidation of retail and commercial functions in line with a joint Retail Strategy to be prepared by the local authorities.</li> <li>5. Identify infrastructural investment priorities and promote a joined-up approach to the delivery of key enabling infrastructure to facilitate the sequential delivery of strategic residential, employment and regeneration development areas</li> <li>6. Support the upgrading of the Water Supply and Treatment System to meet the growth targets set in this strategy.</li> <li>7. Promote Athlone as a sustainable transport hub, of national and regional importance and support the preparation of a joint Local Transport Plan between Westmeath and Roscommon County Councils in collaboration with transport agencies and key stakeholders to improve sustainable mobility in the town.</li> <li>8. Support the proposal to make AIT a Technological University and for the development of a 'smart cities' approach to drive research, innovation and EU funding opportunities in Athlone.</li> <li>9. Support the development of a cross sectoral approach to maximise the tourism potential of the River Shannon and Lough Ree, involving</li> </ol>	<p>environmental assessments which will have regard to the necessary environmental legislation, as is required similar to a Local Area Plan.</p> <p>The RSES recognises that where other strategies and plans undergo review or changes to reflect the national and regional policy objectives and outcomes of both the NPF, and subsequently the RSES, they should also consider any relevant environmental requirements.</p> <p>The RSES explicitly states that feasibility studies will be carried out to support decision making in relation to policy base for this RSES and this will include an environmental appraisal which considers the potential effects on the wider environment, including specifically the Natura 2000 Network (See Chapter 3 Growth Strategy - Assessment of Possible Impacts – Environmental Assessment).</p> <p>The narrative explicitly states that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</p> <p>This statement is accompanied by RPOs 3.2 and 3.3 detailing the requirements for environmental assessment of all plans, projects and activities including SEA, EIA and AA as appropriate and that identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.</p> <p>The importance of Athlone in the context of proximity to significant sites of nature conservation interest recognised for their European and national importance is re-iterated here for clarity. The development of Athlone as a Regional Growth Centre has the potential for negative impacts on BFF and W in particular and as such the joint UAP must recognise and reflect the increased sensitivity of constraint in the area and the risk for adverse effects alone and in combination with other plans and projects on sites of nature conservation interest, their habitats and their species.</p>	<p>2031. This includes lands within the combined functional area of the two Local Authorities of Westmeath and Roscommon. The preparation and adoption of a <b>statutory</b> Joint Urban Area Plan (UAP) by Westmeath and Roscommon County Councils is to be a priority. The joint UAP under agreement of both local authorities, is the appropriate mechanism to determine the functional urban area and plan boundary along with the distribution of population which should be generally in proportion to existing population levels in each local authority area. <b>In tandem with the requirements outlined in the Implementation Roadmap for the National Planning Framework</b> the Joint UAP for the Regional Centre of Athlone should endeavour to support and provide for the following:</p> <ol style="list-style-type: none"> <li>2. A boundary for the plan area to support the achievement of compact growth targets with a minimum of 30% of new homes to be built within the existing built up area, supported by the large scale delivery of lands at Curragh Lissywollen, <b>Lissywollen South</b>, Cornamagh, Cornamaddy and Monksland / Bellanamullia.</li> <li>3. <b>Preparation of a wider collaborative Economic Development Strategy</b> to promote increased employment and enterprise opportunities in Athlone, and to facilitate enhanced co-ordination between local authorities, enterprise agencies and regional stakeholders to support the phased delivery of serviced employment lands at Garrycastle IDA, Blyry, Creggan and Monksland. <b>In promoting the economic development of Athlone, this may include support for the consideration/ investigation of fast track planning mechanisms such as, the designation of an SDZ.</b></li> <li>11. Support ongoing implementation of flood risk management and flood alleviation measures <del>to facilitate the growth of Athlone subject to the outcome of appropriate environmental assessment and taking account of the proximity of sites of international nature conservation interest</del> to facilitate the growth of Athlone.</li> </ol>	<p>SEA/AA/FRA from this proposed alteration to the draft plan.</p>



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		<p>Westmeath, Roscommon and Longford County Council and relevant stakeholders.</p> <p>10. Support the implementation of the Athlone Waterfront Strategy Support to provide for public realm and amenity enhancements and tourist related developments along the waterfront</p> <p>11. Support ongoing implementation of flood risk management and flood alleviation measures to facilitate the growth of Athlone subject to the outcome of appropriate environmental assessment and taking account of the proximity of sites of international nature conservation interest</p> <p>12. Support the development of an Open Space Strategy with provision for a public park in Monksland and the provision of sustainable transport, recreation and amenity spaces to support existing and future populations.</p>			
Ch 5	Dublin MASP - 8 RPOs				
	<p>Amend Guiding Principles. Further summarised to read as follows:</p>	<ol style="list-style-type: none"> <li><b>Dublin as a Global Gateway</b> – In recognition of the international role of Dublin, to support and facilitate the continued growth of Dublin Airport and Dublin Port, to protect and improve existing access and support related access improvements.</li> <li><b>Compact sustainable growth with accelerated housing delivery</b> – To promote sustainable consolidated growth of the Metropolitan Area, including brownfield and infill development, to achieve a target to 50% of all new homes within or contiguous to the built-up area in Dublin, and at least 30% in other settlements. To support a steady supply of sites to accelerate housing supply and to achieve higher densities in urban built up areas, supported by improved services and public transport.</li> <li><b>Integrated Transport and Land use</b> – To focus growth along existing and proposed high quality public transport corridors and nodes on the expanding public transport network and to support the delivery and integration of 'BusConnects', DART expansion and LUAS extension programmes, and Metro Link, while maintaining the capacity and safety of strategic transport networks.</li> <li><b>Increased employment density in the right places</b> – To plan for increased employment densities within Dublin city and suburbs and at other sustainable locations near high quality public transport nodes, near third level institutes and existing employment hubs, and to relocate less intensive employment uses outside the M50 ring and existing built-up areas.</li> <li><b>Alignment of growth with enabling infrastructure</b> – To promote quality infrastructure provision and capacity improvement, in tandem with new development and aligned with national projects and improvements in water and</li> </ol>	<p>Refinement of existing content already assessed in the SEA/AA/FRA of the draft RSES.</p> <p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>	<ol style="list-style-type: none"> <li>Compact sustainable growth and accelerated housing delivery – To promote sustainable consolidated growth of the Metropolitan Area, including brownfield and infill development, to achieve a target to 50% of all new homes within or contiguous to the built-up area of Dublin city and suburbs, and at least 30% in other settlements. To support a steady supply of sites and to accelerate housing supply, in order to achieve higher densities in urban built up areas, supported by improved services and public transport.</li> <li>Alignment of growth with enabling infrastructure – To promote quality infrastructure provision and capacity improvement, in tandem with new development and aligned with national projects and improvements in water and waste water, sustainable energy, waste management and resource efficiency, including district heating and water conservation measures.</li> </ol>	<p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>

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		<p>waste water, sustainable energy, waste management and resource efficiency, including district heating and water conservation measures.</p> <p>6. <b>Social Regeneration</b> – To realise opportunities for social as well as physical regeneration, particularly in those areas of the metropolitan area which have been identified as having high relative deprivation</p> <p>7. <b>Identify Future Development Areas</b> – To identify future development area that may be delivered beyond the lifetime of the draft RSES, but within the longer-term 2040 horizon set out by the NPF.</p> <p>8. <b>Metropolitan Scale Amenities</b> – To enhance provision of regional parks and strategic Green Infrastructure to develop an integrated network of metropolitan scale amenities, and to develop greenways/blueways along the canals, rivers and coast as part of the implementation of the National Transport Authorities' Cycle Network Plan for the Greater Dublin Area.</p> <p>9. <b>Co-ordination and active land management</b> – To enhance co-ordination across Local Authorities and relevant agencies to promote more active urban development and land management policies that help develop underutilised, brownfield, vacant and public lands.</p>			
	<p>Amend Rail projects, to include new amendments to DART, LUAS and Metrolink projects (See also proposed amendment no.74 and 108) List of rail projects to read as follows;</p>	<ul style="list-style-type: none"> <li>• DART Expansion Programme - new infrastructure and electrification of existing lines, including provision of electrified services to Drogheda and further north on the Northern Line, Celbridge-Hazelhatch or further south on the Kildare Line, Maynooth and M3 Parkway on the Maynooth/Sligo Line, while continuing to provide DART services on the South-Eastern Line as far south as Greystones</li> <li>• New stations to provide interchanges with bus, LUAS and Metro network including at Kishoge, Heuston West, Cabra, Glasnevin, Pelletstown and Woodbrook</li> <li>• Implement the extension of the Dunboyne/M3 Parkway line to Navan during the Mid Term Review of the GDA Transport Strategy</li> <li>• Complete construction of Metrolink from Swords to Sandyford, including underground extensions to UCD and Knocklyon from Charlemont.</li> <li>• LUAS Green Line Capacity Enhancement in advance of Metrolink; and</li> <li>• Appraisal, planning and design of LUAS network expansion to Bray, Finglas, Lucan, Poolbeg, Hazelhatch, Booterstown and Blessington.</li> <li>• In principle there is a need to carry out an evaluation of underground metro routes within the M50</li> </ul>	<p>The majority of the rail projects were previously assessed and it was stated in the mitigation that these priorities should be pre-faced by the following text: <i>...subject to appropriate environmental assessment and the outcome of the planning process.</i></p> <p>The assessment previously recorded is relevant to the proposed amendments. This includes positive long-term benefits to PHH, AQ, CF and MA by investing in much needed rail based public transport infrastructure.</p> <p>A modal shift from car to public transport has significant direct and indirect positive impacts for PHH, AQ and CF in particular with reduced transport-related emissions such as particulate matter, NOx and greenhouse gases.</p> <p>It was previously acknowledged that the construction of any linear transport option has inherent potential for negative impacts on BFF, CH, LandS, LS and W in particular as a result of short-term temporary construction-related impacts and longer-term permanent operational impacts associated with fragmentation of habitats, disturbance of species, deterioration of environmental quality and in some cases introduction of nuisance which would particularly be the case with respect to any underground extension of Metrolink to UCD and Knocklyon.. The construction and operational impacts arising from the proposed rail-related development proposals must be subject to robust feasibility,</p>		

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			route selection, appropriate environmental assessment (EIA, AA EclA and FRA) and the planning process at the project level.		
	Amend Road Projects, to reflect national road projects. List to read as follows;	<ul style="list-style-type: none"> <li>M4 Maynooth to Leixlip</li> <li>M11 from Jn 4 M50 to Kilmacanogue</li> <li>N3 Clonee to M50</li> <li>N81 Tallaght to Hollywood</li> </ul> <p><b>Omit;</b></p> <ul style="list-style-type: none"> <li>Dublin Port Southern Access Route</li> </ul>	<p>The majority of the road projects were previously assessed with the exception of the N81 Tallaght to Hollywood.</p> <p>As with the other road projects mentioned, there is potential for negative changes to BFF and PHH as a result on provision of roads projects. Key concerns include: negative impacts in key indicators of conservation value including air and water quality; potential disturbance to key species; potential reduction of habitat area; and potential habitat or species fragmentation as a result of routing; and continued promotion of car based modes of transport will also negatively influence climate change with potential indirect effects for European sites at a national and regional scale.</p> <p>The RSES clearly states as part of RPO 8.8 that support for delivery of these roads is <i>subject to appropriate environmental assessment and the planning process.</i></p> <p>Where this is also applied to the N81 road project no additional likely significant effects in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>		
	Amend Park & Ride. To be renamed;	'New and Enhanced park and Ride;	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.		
	Amend Table 5.1 Phasing/Enabling Infrastructure for MASP as follows;	<p><b>City Centre within the M50</b></p> <ul style="list-style-type: none"> <li>City Centre: Short to Medium term; No requirement for infrastructure, Long term; capacity supported by DART Underground</li> <li>Naas Road/Ballymount (significant brownfield lands in South Dublin and Dublin City Council areas, with potential for residential development and more intensive employment/mixed uses) Medium to Long Term; include new Luas stop</li> </ul> <p><b>North-South DART Corridor</b></p> <ul style="list-style-type: none"> <li>Bray Fassaroe*: Short-medium term; High capacity bus between Bray and Fassaroe</li> </ul> <p><b>North-West Corridor</b></p> <ul style="list-style-type: none"> <li>Dublin 15 lands**: Short term; Improved Bus connections to Dublin Enterprise Zone</li> <li>Maynooth; Short to medium term; DART expansion, road upgrades, bridge, sewer connection and Maynooth Outer Orbital Route.</li> <li>Dunboyne; Amend to "Sequential development prioritising zoned and serviced lands near the railway station and town centre and at Dunboyne North at M3 Parkway station"</li> </ul> <p><b>Metrolink/LUAS Green line</b></p>	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from the proposed alteration to the draft plan subject to the application of the mitigation measures already proposed including the need for SEA/AA/EIA of plans and projects emanating from the RSES; and critically the support for transport infrastructure [road, rail etc] being subject to the outcome of appropriate environmental assessments and planning.		

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		<ul style="list-style-type: none"> <li>Dun Laoghaire Rathdown; Short to medium term- Omit Metrolink</li> <li>Swords-Lissenhall;** Medium to Long Term; Improved bus connections</li> </ul> <p>*Development at Fassaroe will be undertaken in collaboration between Wicklow County Council and transport agencies</p> <p>**Dublin Enterprise Zone and Lissenhall are not directly served by existing or planned rail and will require improve bus connections and demand management measures</p>			
	<p>Amend Core Strategy, to include additional guidance that reads as follows;</p>	<p>The determination of population targets for local authorities within the MASP including the population targets for the city and the Metropolitan Key towns is a matter for the agreement in consultation with the MASP Implementation Group after the adoption of the RSES to inform the preparation of core strategies of the relevant city and county development plans.</p>	<p>The SEA ER, NIR and FRA identify the environmental sensitivities and considerations relevant to population growth. These sensitivities and the mitigation identified in each of the MASP and key growth towns must be applied as the lower tiers of planning are rolled out.</p>	<p>The determination of population targets for local authorities within the MASP <b>in accordance with the NPF and this strategy</b>, including the population targets for the city and the metropolitan key towns, <b>should be agreed in consultation with the MASP Implementation Group, within six months of publication of the RSES</b> to inform the preparation of the core strategies of the relevant city and county development plans. <b>Should it not be possible to reach agreement within the above timeframe, the matter will be referred to the Minister for further determination.</b></p>	<p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>
	<p>New Guiding principles for the location of strategic employment</p>	<p>Include a high-level summary of Section 6.3 Guiding Principles, to read as follows: The Economic Strategy sets out Guiding Principles for the location of strategic employment areas that include access to;</p> <ul style="list-style-type: none"> <li>suitable locations (depending on the extent to which an enterprise is people or space intensive);</li> <li>serviced sites (based on whether an industry is dependent on a particular infrastructure such as energy, water, transport or communications networks);</li> <li>connectivity (including access to international markets that requires proximity to an airport/port);</li> <li>skilled labour force (proximity to third level education and lifelong learning) and</li> <li>local strengths (a diverse sectoral mix, emerging clusters or cross industry value chains),</li> </ul> <p>See Section 6.3 for full list of Guiding Principles.”</p>	<p>The RSES explicitly states that at the project consent stage if it appears that any element of the RSES cannot be implemented without adverse impacts which cannot be adequately mitigated or compensated then the proposals will only make provision for the level and location of development for which it can be concluded that there will be no adverse effect.</p> <p>This statement is accompanied by RPOs 3.2 and 3.3 detailing the requirements for environmental assessment of all plans, projects and activities including SEA, EIA and AA as appropriate and that identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.</p> <p>RPO 4.2 states: Infrastructure investment and priorities shall be aligned with the spatial planning strategy of the RSES. All residential and employment developments should be planned on a phased basis in collaboration with infrastructure providers so as to ensure adequate capacity for services (e.g. water supply, wastewater, transport, broadband) is available to match projected demand for services and that the assimilative capacity of the receiving environment is not exceeded.</p> <p>RPOs 7.12, 7.13, 7.14 and 7.15 deal specifically with the requirements around Flood Risk to ensure compliance with national guidelines and in respect of managing and reducing flood risk and</p>	<ul style="list-style-type: none"> <li>suitable locations (depending on the extent to which an enterprise is people or space intensive <b>or subject to environment constraints</b>);</li> <li>local strengths (a diverse sectoral mix, research, innovation and technology centres, <b>start-up hubs and incubators</b>, emerging clusters or cross industry value chains),</li> </ul>	<p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>

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			<p>the protection of environmentally sensitive sites and habitats.</p> <p>Further, the RSES will include an Appendix identifying key aspects of the environmental profile of all the Regional Growth Centres and Key Towns which will inform future decision-making for project/plans.</p> <p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>		
	<p>Amend Table 5.2 Strategic employment development areas, to include UCD &amp; Knocklyon (see also proposed amendment no.68 and 108) as follows:</p>	<ul style="list-style-type: none"> <li>Metrolink/LUAS Greenline; South County Dublin (Cherrywood, Ballyogan, Sandyford, UCD &amp; Knocklyon)</li> </ul>	<p>The inclusion of UCD and Knocklyon is noted. As with RPOs already assessed, it is essential that the development in these areas is phased in line with services provision. While UCD is serviced by bus connection and is in direct proximity to good road and rail [DART] provision, additional public transport capacity will be required to facilitate further employment in parallel with a clear strategy to reduce dependence on car transport to prevent valuable strategic development lands being devoted to car parking. Similarly to unlock potential for strategic lands in Knocklyon it is essential that Metrolink/LUAS Greenline plans for services in that area are committed in both planning and budgetary terms before advancing the area as a strategic employment development area.</p> <p>RPOs 3.2 and 3.3 detailing the requirements for environmental assessment of all plans, projects and activities including SEA, EIA and AA as appropriate and that identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.</p> <p>RPO 4.2 states: Infrastructure investment and priorities shall be aligned with the spatial planning strategy of the RSES. All residential and employment developments should be planned on a phased basis in collaboration with infrastructure providers so as to ensure adequate capacity for services (e.g. water supply, wastewater, transport, broadband) is available to match projected demand for services and that the assimilative capacity of the receiving environment is not exceeded.</p> <p>RPOs 7.12, 7.13, 7.14 and 7.15 deal specifically with the requirements around Flood Risk to ensure compliance with national guidelines and in respect of managing and reducing flood risk and the protection of environmentally sensitive sites and habitats.</p>		

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			No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.		
<b>Ch 6</b>	<b>Economy and Employment</b>				
		<i>Support Offaly County Council, Bord na Mona and Coillte in the development of the 'Midlands Cycling Destination – Offaly'</i>	Potential for medium to long-term direct positive impacts in AQ, CF, PHH and indirect positive impacts on MA. However, as above, cycleways have the potential for direct and indirect negative impacts on BFF in particular as a result of habitat loss and disturbance from routing and species disturbance and / or loss as a result of disturbance from cyclists and associated parking and service facilities that may be required. A robust feasibility study and route selection is therefore needed to ensure that this RPO does not give rise to negative effects on BFF and W and does not lead to likely significant effects on any European sites or protected species. It is recommended that this RPO includes reference to a feasibility study and a route selection.		
<b>Ch 7</b>	<b>Environment and Climate</b>				
	Amend Table 7.1 Strategic Natural, Cultural and Heritage Assets to include additional assets under the following headings;	<ul style="list-style-type: none"> <li>• <b>Maritime towns and beaches</b> - Wicklow town</li> <li>• <b>Lakes, Rivers and Canals</b> - Lough Tay – Lough Dan on the Cloghoge River, Vartry Reservoir, River Slaney and tributary Derry River.</li> <li>• <b>Greenways / Blueways:</b> Liffey Valley, Dodder, Lakelands Greenway, Newgrange to Newbridge Greenway, Blessington Greenway, Coastal Greenway from Wicklow to Greystones, Arklow – Shillelagh recreational trail. Refer to the Green &amp; Silver triangular navigation route encompassing Dublin, Royal Canal, River Shannon and Grand Canal.</li> <li>• <b>Bogs and peatlands;</b> Abbeyleix Bog</li> <li>• <b>National and Regional parks;</b> Avondale and Kilmacurragh. Lough Ree and Mid-Shannon Wilderness Park and Lanesborough Commons North Park, Curragh Plains</li> <li>• <b>Medieval, Historic and Walled towns;</b> Kildare, Naas</li> <li>• <b>Heritage sites;</b> Curragh Plains, Balltinglass Hilfort Structure</li> </ul>	<p><i>While the inclusion of these natural assets is broadly positive, encouraging appreciation of the receiving natural and cultural environment, encouraging healthy places and reducing dependency on fossil fuel based transport, there is potential for negative effects particularly in relation to BFF.</i></p> <p><i>Green and blue infrastructure is first and foremost a transport corridor which may (or may not) enhance biodiversity. Where it can be sustainably delivered and sensitively integrated into the natural environment it can provide a corridor for dispersal and enhanced foraging opportunities. However without due recognition of limitations such as light disturbance leading to impacts on bats and birds [feeding, nesting etc.] , transport and spread of invasive species and loss/disturbance of habitats and species, the value of the infrastructure can be limited to movement of people. To avoid such a limitation the commitments already made within the RSES should be fully adhered to including:</i></p> <p><b>RPO 3.2:</b> <i>Ensure that all plans, projects and activities requiring consent arising from the Regional Spatial and Economic Strategy are subject to the relevant environmental assessment requirements including SEA, EIA and AA as appropriate.</i></p> <p><b>RPO 3.3:</b> <i>Identification of suitable employment and residential lands and suitable sites for infrastructure should be supported by a quality site selection process that addresses environmental concerns such as landscape, cultural heritage, ensuring the protection of water quality, flood risks and biodiversity as a minimum.</i></p> <p><b>RPO 3.4:</b> <i>Local Authorities shall promote an Ecosystems Services Approach in the preparation of statutory land use plans.</i></p>		

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			<p><b>RPO 6.14:</b> Support the preparation and implementation of Visitor Experience Development Plans within the Region to underpin the overarching regional tourism brands and to deliver greater tourism benefits and to promote the natural and cultural assets of the Region.</p> <p><b>RPO 6.17:</b> Support the preparation and implementation of Local Authority Tourism Strategies and Diaspora Strategies. All tourism strategies and plans should include clear monitoring protocols to monitor the ongoing effect of tourism on sensitive features with particular focus on natural and built heritage assets.</p> <p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>		
	Amend Guiding Principles for Green Infrastructure to include additional bullet point as follows;	<ul style="list-style-type: none"> <li><b>Carbon Sequestration</b> - Local Authorities should consider the potential for carbon sequestration in GI Strategies, whereby certain areas can be considered as strategic and integral mechanism for the long-term storage of carbon to mitigate the contribution of fossil fuels emissions and combat climate change.</li> </ul>	As above. The function of the GI should not be assumed to equate to protection of all aspects of the environment. As per RPO 3.2 all plans, projects and activities requiring consent arising from the Regional Spatial and Economic Strategy are subject to the relevant environmental assessment requirements including SEA, EIA and AA as appropriate.		
<b>Ch 8</b>	<b>Connectivity</b>				
	Amend Section 8.3 Guiding Principles for Integration of Land Use and Transport, as follows;	<p><b>New;</b> Include reference to DMURS</p> <p><b>Amend</b> second bullet point as follows;</p> <ul style="list-style-type: none"> <li>The predicted impact of the potential land use and transport infrastructure on modal split and transport greenhouse gas emissions should be assessed to deliver on national and regional targets using the assessment approaches identified or developed in accordance with RPO 7.28.</li> </ul> <p><b>Omit</b> the following Guiding principles:</p> <ul style="list-style-type: none"> <li>‘support reverse commuting for those living in urban centres and commuting to work elsewhere’</li> <li>‘The predicted impact of the potential land use and transport infrastructure on modal split and transport greenhouse gas emissions should be assessed to deliver on national and regional targets’</li> </ul>	Revision of bullet point for clarity. No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.	<p>The Draft RSES provides the basis for the integration of land use and transport planning in the Region, informing the preparation and implementation of plans, programmes and projects at all levels.</p> <ul style="list-style-type: none"> <li>City and County Development Plans shall undergo assessment of their impact on carbon reduction targets in their preparation, and shall include measures to monitor and review progress towards carbon reduction targets.</li> <li>Support investment in infrastructure and behavioural change interventions to encourage and support a shift to sustainable modes of transport and support the use of design solutions and innovative approaches to reduce car dependency. Development will have regard to the Design Manual for Urban Roads and Streets, where appropriate.</li> <li>Where additional road capacity is provided within or around any town which has an objective to cater for traffic that currently uses the road network in central areas and their immediate environs, that this additional capacity would be used for the improvement of the public transport, walking and cycling networks within the towns through the reallocation of road space to these modes.</li> <li>Ensure the protection of Natura 2000 networks and associated ecological linkages. Plans and projects that have the potential to negatively impact on Natura 2000 sites should be subject to the requirements of the Habitats Directive.</li> </ul>	<p>The additional bullets provide further clarity and context for the Guiding Principles, including consideration of sustainable transport integration and ensuring protection of Natura 2000 networks, which supports the RPOs that follow.</p> <p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>

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	Amend Table 8.2 Rail Projects for the Region. to include new amendments to DART, LUAS and Metrolink projects (See also proposed amendment no.68 and 74) List of rail projects to read as follows;	<ul style="list-style-type: none"> <li>DART Expansion Programme - new infrastructure and electrification of existing lines, including provision of electrified services to Drogheda and further north on the Northern Line, Celbridge-Hazelhatch or further south on the Kildare Line, Maynooth and M3 Parkway on the Maynooth/Sligo Line, while continuing to provide DART services on the South-Eastern Line as far south as Greystones</li> <li>Provide for an appropriate level of commuter rail service in the Midlands and South-East</li> <li>Complete the construction of the National Train Control Centre</li> <li>New stations to provide interchange with bus, LUAS and Metro network at including Kishoge, Heuston West, Cabra, Glasnevin, Pelletstown and Woodbrook</li> <li>A feasibility study of high-speed rail between Dublin Belfast, Dublin Limerick Junction/Cork will be carried out</li> <li>Implement the extension of the Dunboyne/M3 Parkway line to Navan during the Mid Term Review of the GDA Transport Strategy</li> <li>Complete construction of Metrolink from Swords to Sandycroft, including underground extensions to UCD and Knocklyon from Charlemont.</li> <li>LUAS Green Line Capacity Enhancement in advance of Metrolink</li> <li>Undertake appraisal, planning and design of LUAS network expansion to Bray, Finglas, Lucan, Poolbeg, Hazelhatch, Booterstown and Blessington.</li> <li>In principle there is a need to carry out an evaluation of underground metro routes within the M50</li> </ul>	See above. All are subject to the outcome of appropriate environmental assessment and planning. No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.		
	Amend Table 8.4 Road Projects for the Region, to reflect national projects. List of road projects to read as follows;	<ul style="list-style-type: none"> <li>M7 Naas to Newbridge bypass widening, Osberstown Interchange and Sallins Bypass</li> <li>N2 Slane Bypass</li> <li>N2 Rath Roundabout to Kilmoon Cross</li> <li>N2 Ardee to south of Castleblaney</li> <li>M4 Maynooth to Leixlip</li> <li>N4 Mullingar to Longford (and Sligo)</li> <li>M11 from Jn 4 M50 to Kilmacanogue</li> <li>N3 Clonee to M50</li> <li>N52 Ardee Bypass</li> <li>N52 Tullamore to Kilbeggan</li> <li>N80 Improvements including inter regional and intra regional accessibility.</li> <li>N81 Tallaght to Hollywood scheme including linkage roads from Baltinglass and Dunlavin to N9 from N81.</li> </ul> <p><b>Omit;</b></p> <ul style="list-style-type: none"> <li>Dublin Port Southern Access Route</li> </ul>	See above. All are subject to the outcome of appropriate environmental assessment and planning. No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.		
	<b>Amend Park &amp; Ride.</b> To be renamed;	'New and Enhanced park and Ride'			
<b>Ch 9</b>	<b>Quality of Life</b>				



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	<p>Amend Guiding Principles for Urban Infill and Brownfield Regeneration. Expanded Guiding Principles to read as follows</p>	<p>Local authorities, in the preparation of the Core Strategies of their Development Plans, shall consider the following Guiding Principles to deal with the complexities of brownfield and infill sites;</p> <ol style="list-style-type: none"> <li>1. The establishment of a database of strategic brownfield and infill sites as part of the active land management process, that identifies the development capacity and any constraints on sites that are zoned for development including potential contamination and incorporating other relevant databases such as the Derelict Sites Register and the Vacant Sites Register. The database should be spatially referenced and searchable to allow for regular updating and monitoring and so that brownfield re-use can be managed and co-ordinated across multiple stakeholders.</li> <li>2. Proposals for strategic brownfield and infill sites should be accompanied by a site brief and/or masterplan that sets out a phased programme for the regeneration of the site and demonstrates how the proposal will comply with National Guidelines that seek to achieve sustainable compact development and to integrate principles of good urban design and placemaking.</li> <li>3. Local authorities should liaise with the Regional Waste Management Office when considering proposals for the development of brownfield sites that require the offsite disposal of contaminated waste, so that a programme for site remediation can be identified early and considered by all stakeholders. Proposals for brownfield regeneration in strategic locations should be accompanied by a site risk statement and waste plan and for the disposal of any wastes arising including any hazardous or contaminated material.</li> <li>4. Encourage pilot projects for the re-use of brownfield sites and encourage active temporary uses where feasible and as far as practicable to encourage activation of vacant sites that require longer lead in time regeneration processes.</li> <li>5. Set out measures to reduce vacancy and the underuse of existing building stock and support initiatives that promote the reuse, refurbishment and retrofitting of existing buildings within urban centres</li> </ol>	<p>The impacts associated with brownfield development have been considered already in the SEA ER, the NIS and the FRA. It is essential that any proposals for specific site remediation and development are accompanied by a robust risk assessment of potential pathways for impact and that compliance can be achieved with the objectives of not only the Habitats directive but also obligations under the Water Framework Directive.</p>	<p>6. Explore opportunities for biodiversity enhancement to improve ecological connectivity as part of the strategic re-intensification of urban infill and brownfield sites.</p>	<p>This addition is overall positive. Potential for spread of invasive species should also be considered. Otherwise it is considered there are no additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>
	<p>New Guiding principles for Healthy Placemaking. Guiding Principles to read as follows;</p>	<ul style="list-style-type: none"> <li>- Future development prioritises the need for people to be physically active in their daily live and promote walking and cycling in the design of streets and public spaces</li> <li>- New schools and workplaces are linked to walking and cycling networks</li> <li>- Exposure of children to the promotion of unhealthy foods is reduced such as the careful consideration of the location of fast food outlets in the vicinity of schools and parks</li> <li>- Provision of open space should consider types of recreation and amenity uses required</li> </ul>	<p>Positive impacts for PHH. Indirect positive impacts for AQ and CF by encouraging active transports modes such as cycling and walking.</p> <p>As already identified in the NIR and acknowledged in the RSES, there is a need to support decision making on the location and nature of the supporting infrastructure provided by robust feasibility and route section studies and subject to the outcome of appropriate environmental assessment including SEA, EIA, AA as detail becomes available.</p>	<p>Guiding principles for Healthy Placemaking, by ensuring that:</p> <ul style="list-style-type: none"> <li>- Good urban design principles are integrated into the layout and design of new development, as set out in Departmental Guidelines 'Sustainable Residential Development in Urban Areas' and the 'Design Manual for Urban Roads and Streets (DMURS)</li> </ul>	<p>No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.</p>

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		<ul style="list-style-type: none"> <li>- Public open spaces to have good connectivity and be accessible by safe, secure walking cycling routes</li> <li>- Open space to be planned for on a multi-functional basis incorporating ecosystem services, climate change measures, green infrastructure and key landscape features in their design.</li> </ul>			
<b>Ch 10</b>	<b>Infrastructure</b>				
	Amend Table 10.1 Strategic Water Services Projects Amend 1st bullet point to read as follows;	The Water Supply project for the Eastern and Midlands Region to supply water to the Greater Dublin Area (GDA) and other communities including Athlone.	AS noted in the assessment already presented in the ER and NIR, it is acknowledged that an EIAR and Appropriate Assessment of the project will be considered by the planning authority. All potential impacts of the scheme, including abstraction, will be addressed in the EIAR and the Natura Impact Statement that are currently under preparation.		
	Amend Guiding Principles relating to Surface Water. Include new bullet point under existing Guiding Principle to read as follows;	<ul style="list-style-type: none"> <li>• EMRA supports the development of Drinking Water Protection Plans in line with the requirements of the Water Framework Directive and the current and future cycles of River Basin Management Plans. In this regard, EMRA supports the inclusion of objectives in County Development Plans relating to the provision of mitigation and protection measures for all protected areas, including Drinking Water Protected Areas and associated Source Protection Plans.</li> </ul>	Positive impacts for W, PHH and MA. This further supports integration of WFD into land use planning and will contribute to sustainable water management. This in turn will have positive long-term impacts for water dependent ecosystems including those designated as European sites or supporting the health of such sites.		
	Amend Guiding principles relating to the provision of energy network Include new bullet point under existing Guiding Principles to read as follows;	<ul style="list-style-type: none"> <li>• Regard for any National or Regional Landscape/Seascape Character Assessment</li> </ul> <p>Include addition to text in existing second bullet point:</p> <ul style="list-style-type: none"> <li>• "and address issues of climate resilience, biodiversity, impact on soils and water quality."</li> </ul>	No additional likely significant effects (either positive or negative) in respect of the SEA/AA/FRA from this proposed alteration to the draft plan.		

