Tionól Réigiúnach an Deiscirt
Southern Regional Assembly

Southern, Eastern and Midland Regional ERDF Programme 2021 – 2027

Strategic Environmental Assessment (SEA) Environmental Report

Southern Regional Assembly (SRA)

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ACRONYMS

TERM	DEFINITION
AA	Appropriate Assessment
ACP	The Agricultural Catchment Programme
AQI	Air Quality Index
CBS	Countryside Bird Survey
CCDP	City and County Development Plans
CSO	Central Statistics Office
DAFM	Department of Agriculture, Food and the Marine
DCHG	Department of Culture, Heritage and the Gaeltacht
DECC	Department of the Environment, Climate and Communications
DNSH	Do No Significant Harm
ED	Emergency department
EIA	Environmental Impact Assessment
EMFAF	European Maritime, Fisheries and Aquaculture Fund
EMRA	Eastern and Midland Regional Assembly
EPA	Environmental Protection Agency
ERDF	The European Regional Development Fund
ESF	European Social Fund
EU	European Union
GHG	Greenhouse gases
GLAS	Green, Low-Carbon, Agri-Environment Scheme
HED	Historic Environment Division
HPSU	High Potential Start-up
IEA	International Energy Agency
KPIs	Key Performance Indicators
LECPs	Local Economic and Community Plans
LCA	Landscape Character Assessment
NAP	Nitrates Action Programme
NDP	National Development Plan
NECD	National Emissions Ceilings Directive
NHA	Natural Heritage Area
NIS	Natura Impact Statement
NIEA	Northern Ireland Environment Agency
NMS	National Monuments Service
NMVOCs	Non-methane volatile organic compound

NPF	National Planning Framework
NUTS	Nomenclature of territorial units for statistics
NWRA	Northern and Western Regional Assembly
OECD	Organisation for Economic Co-operation and Development
PAH	Polycyclic Aromatic Hydrocarbons
PGM	Platinum Group Minerals
PM	Particulate Matter
PMC's	Programme Monitoring Committee
PO	Policy Objective
PPE	Personal protective equipment
RBMP	River Basin Management Plan
RMP	Record of Monuments and Places
RSO	Strategic Objective
RSES	Regional Spatial and Economic Strategy
SAC	Special Area of Conservation
SDG	Sustainable Development Goals
SEA	Strategic Environmental Assessment
SEAI	Sustainable Energy Authority of Ireland
SFRA	Strategic Flood Risk assessment
SME	Small and Medium-sized enterprises
SPA	Special Protection Area
SRA	Southern Regional Assembly
SUDS	Sustainable urban drainage system
TU	Technological Universities
UN	United Nations
WHC	World Heritage Convention

1 INTRODUCTION

1.1 Purpose of this Report

1.1.1 RSK Ireland Ltd (hereafter 'RSK') has been instructed by the Southern Regional Assembly (SRA) to carry out a Strategic Environmental Assessment (SEA) of the Southern, Eastern and Midland Regional ERDF Programme 2021 - 2027 (Hereafter referred to as 'the Regional Programme'). This Regional Programme supports the objectives of the Regional Spatial and Economic Strategy (RSES) for the Southern Region 2020 -2032 and the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region 2019 - 2031.

1.1.2 SEA is a systematic process for evaluating the environmental consequences of proposed plans or programmes to ensure environmental issues are fully integrated and addressed at the earliest appropriate stage of decision making, with a view to promoting sustainable development. The process of SEA was introduced under European Directive 2001/42/EC12 on the assessment of the effects of certain plans and programmes on the environment (SEA Directive) and came into force in 2001.

1.1.3 The Directive requires the SRA, as the programming authority, to assess the likely significant effects of its plans and programmes on: "*the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship of the above factors*" including "*secondary, cumulative, synergistic, short, medium, and long-term, permanent and temporary positive and negative effects*".

1.1.4 In Ireland the enabling legislation is the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (SI 435/2004), as amended in 2011 by SI200/2011, and the Planning and Development (Strategic Environmental Assessment) Regulations 2004 as amended in 2011 (Irish SI 436/2004 and SI 201/2011). Hereafter collectively referred to as 'the SEA Regulations'.

1.1.5 The purpose of this report is to evaluate the likely environmental effects of implementing the Regional Programme as per the requirements of the Directive and the SEA Regulations. This includes an assessment of realistic alternative approaches and options, as well as the suggestion of mitigation and enhancement measures to prevent, reduce and offset any significant adverse effects on the environment of implementing the Regional Programme.

1.1.6 This report has been issued into statutory consultation by SRA and is available to view and comment on by other interested organisations and members of the public in parallel with the consultation period for the Regional Programme. More detail on the consultation period is available in Section 9.

1.2 Structure of this Report

1.2.1 The areas considered in this Environmental Report, and their location in the report, are as follows:

- Summary of the Regional Programme – Section 2;
- Approach to the SEA – Section 3;
- SEA Objectives and assessment methodology – Sections 3.4 and 3.5;
- Summary of scoping consultation responses – Section 4 and Appendix C;
- Summary of baseline data – Section 4.3;
- Existing environmental problems and the likely evolution of the environment without the Regional Programme– Section 4.4;
- Consideration of alternatives – Section 5 and Appendix D;
- Identification and assessment of likely significant effects – Section 6;
- Mitigation and enhancement measures – Section 7;
- Proposed monitoring programme – Section 8;
- Next steps regarding the consultation – Section 9
- Relationship with other plans, programmes and conservation objectives – Appendix B; and
- Environmental Baseline Maps – Appendix A.

1.2.2 A non-technical summary of the information provided in this report has been provided separately.

2 THE SOUTHERN, EASTERN AND MIDLAND REGIONAL PROGRAMME 2021-27

2.1 Background and General Principles

2.1.1 The SRA and the Eastern and Midland Regional Assembly (EMRA) are two of three Regional Assemblies in the Republic of Ireland. Both assemblies work towards linking local and national policy goals through the implementation of the Regional Spatial and Economic Strategies (RSES) aligned to the National Planning Policy Framework – Project Ireland 2040 within their geographical regions.

2.1.2 In May 2018, the European Commission (EC) adopted a proposal for the next multi-annual financial framework for the period 2021-2027. Following this, in March 2021, the EC published a package of Regulations on Cohesion Policy for 2021-2027, which included the provision for European Regional Development Fund ERDF Operational Programmes.

2.1.3 The Cohesion Policy (or regional policy) of the European Union (EU) provides a framework for financing a range of projects and investments designed to encourage economic growth in EU Member States, their regions, and third countries. The policy is reviewed by the EU Institutions once every seven years. The next round of programmes will cover the period 2021 – 2027.

2.1.4 The ERDF aims to create jobs and develop competitiveness to reinforce the economic and social structure by investing in areas which will enhance growth.

2.1.5 The ERDF is a co-financed programme, meaning that EU funding must be matched by a set percentage of national funding. This co-financing rate varies by region. Ireland will have three NUTS2 regions in the 2021-2027 round, with two different rates of co-financing. As 'more developed' regions, the Southern and the Eastern and Midlands regions will receive 40% in EU financing, while as a 'transition' region, the Northern and Western region will receive 60% in EU financing.

2.1.6 Two ERDF co-financed Regional Programmes have since been developed, with the SRA and the Northern and Western Regional Assembly (NWRA) acting as Managing Authorities (MAs).

2.1.7 The ERDF currently includes provision for two Regional Programmes, comprising:

- The Southern, Eastern and Midland Regional Programme 2021-2027 – covering the combined areas of the Southern Region and the Eastern and Midland Region; and
- The Northern and Western Regional Programme 2021-2027 – covering the Northern and Western region.

2.1.8 The Southern, Eastern and Midlands Regional Programme areas can be seen below in Figure 2.1 and 2.2.

Figure 2.2: Eastern and Midland Region

Figure 2.1: Southern Region

2.2 Programme Consultation

2.2.1 The Regional Programmes are developed under an EU Partnership model, with extensive consultation involving social partners and voluntary groups.

2.2.2 The consultation process commenced with a detailed Needs Analysis which was undertaken independently by Indecon Consultants and completed in July 2020. The analysis was focused on future investment priorities in line with national and regional Policy Objectives and the Cohesion Policy Objectives of the EU. The Needs Analysis was subject to its own detailed stakeholder consultation process.

2.2.3 Public consultation was held at a regional and national level between July and September 2020 to elicit the views of stakeholders and the wider public, regarding the priorities for ERDF funding in 2021 – 2027, on a regional basis.

2.2.4 Further consultations then took place with Government Departments and State Agencies to identify potential policy alignments with ERDF and regional objectives between January and March 2021.

2.2.5 This included meetings between the Regional Assemblies and:

- Department of Transport;.
- Department of Enterprise, Trade and Employment;
- Department of the Environment, Climate and Communications (DECC);
- Department of Further and Higher Education;
- Department of Housing, Local Government and Heritage (DHLGH);
- Department of Rural and Community Development;
- The Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media; and
- Relevant Local Authorities.

2.2.6 Following those rounds of meetings, a number of Government Departments and State Agencies put forward proposed actions for consideration for ERDF funding.

2.2.7 A comprehensive screening process of those proposed actions was conducted by the MAs in consultation with the EC and Member State. From the screening process and following a further round of consultation meetings with the Government Departments and State Agencies between July and November 2021, a list of preferred actions for inclusion in the ERDF co-funded Programme was identified.

2.3 The Regional Spatial and Economic Strategy (RSES)

2.3.1 The Regional Programme for ERDF is directly linked to the two existing RSESs.

2.3.2 The RSES for the Southern Region was adopted in January 2020. It sets a 12-year strategic planning and economic development framework for future economic, spatial, and social development of the Southern Region in line with vision and objectives for national change in the National Planning Framework (NPF) and the National Development Plan (NDP). It is prepared and implemented through the regional tier of Government to achieve

balanced regional development. It will be implemented in partnership with Local Authorities and State Agencies to deliver on this vision and build a cohesive and sustainable region.

2.3.3 The RSES for the Eastern and Midland region was adopted in June 2019 with the same primary aims as outlined above. The RSES of both regions will be implemented by way of a review by Local Authorities of all city and county development plans and Local Economic and Community Plans (LECPs). Key State Agencies and sectoral bodies also need to align their strategies and investment plans to support the achievement of National and Regional Strategic Outcomes set out in the NPF and RSES.

2.3.4 The ambition of SRA is to utilise the funding available in the ERDF co-financed Regional Programme to support the delivery of key regional objectives and priorities as set out in the two existing RSESs. Consequently, the formulation of the Regional Programme has been grounded in the implementation of the RSESs, along with the Needs Analysis and the European Commission's Country Specific Reports.

2.3.5 Both existing RSESs were subjected to SEA and AA and therefore have been used to inform the current assessment of the Regional Programme.

2.4 Programme Objectives

2.4.1 The Regional Programme is being developed in the framework of the five Policy Objectives (PO's) as set out in the ERDF EU regulations:

- Policy Objective 1: A more competitive and smarter Europe by promoting innovative and smart eco-nomic transformation and re-gional ICT connectivity (PO 1);
- Policy Objective 2: A greener, low-carbon transitioning towards a net zero carbon economy and resilient Europe by promoting clean and fair energy transition, green and blue investment, the circular economy, climate change mitigation and adap-tation, risk prevention and management, and sustainable urban mobility (PO 2);
- Policy Objective 3: A more connected Europe by enhancing mobility (PO 3);
- Policy Objective 4: A more social and inclusive Europe implementing the European Pillar of Social Rights (PO 4); and
- Policy Objective 5: A Europe closer to citizens by fostering the sustainable and integrated development of all types of territories and local initiatives (PO 5).

2.4.2 For this Regional Programme period of 2021 to 2027, SRA's primary focus will be on PO 1, 2 and 5 (A smarter Europe, a greener, low-carbon Europe, and a Europe closer to citizens) of the ERDF.

2.4.3 The policies and specific objectives of the 2021 – 2027 Regional Programme are outlined in Table 2.1 below.

Table 2.1: EU Policy Objectives, Specific Objectives and Proposed Types of Actions of the Regional Programme

Specific Objectives	Indicative Actions
EU Policy Objective 1: A Smarter Europe - A more competitive and smarter Europe by promoting innovative and smart economic transformation and regional ICT connectivity (PO 1). **Regional Programme Priority: SEM1**. Smarter and More Competitive Regions	
RSO1.1 Developing and enhancing research and innovation capacities and the uptake of advanced technologies.	The following Types of Actions (TOAs) will be taken under this priority to develop and enhance research and innovation capacities and the uptake of advanced technologies in the programme area. **Capacity building within the regions new Technological University (TU).** • **Action RSO1.1.1:** Establish, strengthen and systemise the technological universities' research and innovation offices which support their academic staff and researchers and wider enterprise and community stakeholders within their regions. This will include developing researcher human capital in the technological universities, including staff development, recruitment, postgraduate training and supervision, networking, and more structured collaborative knowledge-transfer and mobility schemes. • **Action RSO1.1.2:** Provide industry gateways with dedicated staff who work with industry to articulate company problems in a manner that can be addressed by the established expert base in each TU. Gateway staff will manage the interaction between enterprises and the technological university, help enterprises source funding where necessary, and ensure projects are delivered successfully and in an industry-friendly manner.
	Capacity building within both universities and our Technological Universities (TUs). **Action RSO1.1.3:** Retain Technology Transfer specialists to help companies and investors to access new knowledge and expertise, to drive innovation through collaboration, and to identify and license new technologies and IP. These specialists will continue to develop the Technology Transfer System in public research institutions and will provide new resources to place a focus on developing spin out company opportunities.

Specific Objectives	Indicative Actions
	Accelerating the translation of cutting-edge research into commercial applications at a regional level. **Action RSO1.1.4:** Establish a new "Smart Hub" model for regional innovation and entrepreneurial training. The model will integrate critical elements of a research and innovation (R&I) ecosystem with entrepreneurial approaches, thus accelerating time to market from research concept to spin-outs, new product introduction, licences and innovations. The new regional Smart Hubs for Entrepreneurial Research and Innovation will be established in key thematic areas aligned with the Ireland's Smart Specialisation Strategy and regional strategic priorities.
	Supporting innovation diffusion, enterprise innovation and entrepreneurship in the regions. **Action RSO1.1.5:** Develop new immersive-based, needs-led innovation training programmes, closely aligned to S3 in the regions and capable of attracting high calibre individuals and inter-disciplinary teams who, through their immersion and observation of real needs in their immersive environment and the use of a design methodology, will be supported to generate product and process ideas, new IP and in some cases, the creation of high-potential-start-ups (HPSUs) from research. These programmes will build on existing international and national best practice connecting on multiple levels with the industry sector clusters in the regions.
RSO1.3 Enhancing sustainable growth and competitiveness of SMEs and job creation in SMEs, including by productive investments.	The following types of action will be taken under this priority to enhance sustainable growth and competitiveness of SMEs and job creation in SMEs, including by productive investment, in the regions and sub-regions of the programme area. **Strengthening and developing functional regional ecosystems that support innovation diffusion, enterprise innovation and entrepreneurship in the regions.** **Action RSO1.3.1:** Provide appropriate infrastructure and key staff resources to deliver innovative solutions including support programmes to support entrepreneurship, start-ups and scaling companies. This will include: Delivery of small to medium scale regional projects (with minimum or no building requirements) or expansion of existing regional ecosystem projects. Scoping and preparing new large-scale regional projects, e.g., design and planning, project development, recruitment of key managers. Delivery of large-scale regional capital investment projects that provide key strategic infrastructural solutions to support the regional ecosystem. Actions will be targeted at strategic regional locations where an identifiable deficit exists in key infrastructure which is necessary to develop functional regional ecosystems which can support this client base. Projects must be collaborative in nature, they must be innovative, viable and sustainable with metrics and Key Performance Indicators (KPI's) which provide additionality to the existing regional infrastructure.

Specific Objectives	Indicative Actions
	Projects will complement the solutions provided by the existing regional providers including higher education institutions, state agencies and private sector entities at a regional level.
EU Policy Objective 2: A Greener, Low Carbon Europe - A greener, low-carbon transitioning towards a net zero carbon economy and resilient Europe by promoting clean and fair energy transition, green and blue investment, the circular economy, climate change mitigation and adaptation, risk prevention and management, and sustainable urban mobility (PO 2). **Regional Programme Priority: SEM2**. Low-Carbon Energy Efficient Regions	
RSO2.1 Promoting energy efficiency and reducing greenhouse gas emissions.	The following types of action will be taken under this priority to promote energy efficiency and reduce greenhouse gas emissions in the programme area. **Improving the energy efficiency of residential homes.** **Action RSO2.1.1:** Support the delivery of energy efficiency renovations free of charge to owner-occupied lower-income households who meet the defined eligibility criteria and who are in, or are vulnerable to, energy poverty. This action will use learnings from similar actions in the 2014-2020 programming period and will: retrofit homes with the aim to achieve, on average, at least a medium-depth level renovation pilot the installation of heat pumps in existing premises, to replace older less efficient heating systems gather evidence from the pilot to inform the appropriate process and approach to increasing the number of B2 upgrades and heat pump installations going forward provide an evidence base to improve the targeting of energy efficiency schemes examine the impact of retrofitting on alleviating energy poverty
EU Policy Objective 5: A Europe Closer to its Citizens - Europe closer to citizens by fostering the sustainable and integrated development of all types of territories and local initiatives (PO 5) **Regional Programme Priority: SEM3.** Sustainable and Integrated Urban Development	

Specific Objectives	Indicative Actions
RSO5.1 Fostering the integrated and inclusive social, economic and environmental development, culture, natural heritage, sustainable tourism, and security in urban areas.	The following types of action will be taken under this priority to foster integrated and inclusive social, economic and environmental development, culture, natural heritage, sustainable tourism, and security in urban areas within the programme area. **Supporting locally lead and locally selected projects that take an integrated strategic approach to the regeneration of our towns, using a Town Centre First Health Check framework to gather data, develop action plans and lead actions on regeneration.** **Action RSO5.1.1:** Prepare integrated urban regeneration action plans / masterplans (either using procured multi-disciplinary service or short-term contract within the Local Authority for required skills) which identify projects and initiatives tackling town centre regeneration, placemaking, vacancy and dereliction. **Action RSO5.1.2:** Deliver pilot and pathfinder projects for selected towns (priority for Key Towns or other settlements as justified by the Local Authority under selection criteria) tackling town centre regeneration, placemaking, vacancy and dereliction. This will involve capital investment and may include public realm improvement projects.

2.5 Environmental Outputs of Previous Programmes

2.5.1 The previous programme was the Southern and Eastern (S&E) Regional Programme 2014 - 2020. The Programme co-financed activities under five priority areas to improve quality of life and contribute to Ireland's Europe 2020 targets for smart, sustainable, and inclusive growth, focusing on specific growth opportunities and sectors identified in Ireland's smart specialisation strategy, to support the creation of new quality jobs, boost innovation, increase licenses granted, and help to grow the local economies in the region.

2.5.2 The environmental outputs of the last programme as of 2021 are listed below:

- 12,214 households with improved energy efficiency;
- 10,796 tCO2eq estimated annual decrease of greenhouse gasses (GHG);
- 9 sustainable urban development projects approved; and
- 1,652,174 people living in areas with integrated urban development strategies.

2.6 Characterisation of the Programme Area

2.6.1 The Southern Region and the Eastern and Midland Region are two of three NUTS2 regions of Ireland, the other being the Northern and Western Region. The geographical area of the two regions in the programme area covers 63% of the landmass of the Republic of Ireland, comprises almost 80% of the total population and encompasses the following 18 Irish counties:

- Nine counties of Ireland for the Southern Region, comprising Clare, Limerick, Kerry, Cork, Tipperary, Waterford, Kilkenny, Carlow, and Wexford; and
- Nine counties of Ireland for the Eastern and Midland Region, comprising Dublin, Kildare, Meath, Louth, Wicklow, Laois, Longford, Offaly, and Westmeath.

2.6.2 The area covered by the Southern, Eastern and Midland Regional Programme can be seen in Figure 1 in Appendix A.

2.6.3 The Eastern and Midland Region has the Dublin Metropolitan Area and three Regional Growth Centres of Drogheda, Dundalk and Athlone. The Key Towns in the Eastern and Midland Region are Swords, Bray, Maynooth, Navan, Naas, Wicklow, Mullingar, Longford, Tullamore, Portlaoise and Graigcullen/Carlow. The Southern Region has the Cork, Limerick-Shannon and Waterford Metropolitan Areas. Key Towns in the Southern Region are Kilkenny, Ennis, Carlow, Tralee, Wexford, Clonmel, Killarney, Mallow, Nenagh, Thurles, Newcastle West, Clonakilty, Dungarvan and Gorey. The regions' diverse towns, villages and rural areas are also supported for regeneration, economic resilience and sustainable growth.

2.6.4 There are several nature conservation, landscape and cultural heritage designations in Ireland. These are designated as either statutory (protected by law) or non-statutory (a material planning consideration), and can be of international, national or local importance. Information on local and/or non-statutory designations is held by individual local authorities and has not been obtained for this strategic level assessment.

3 APPROACH TO THE SEA

3.1 Best Practice Guidance

3.1.1 Our SEA approach takes into account the procedures provided under the following guidance documents:

- European Commission (2003), 'Implementation of SEA Directive (2001/42/EC): Assessment of the Effects of Certain Plans and Programmes on the Environment';
- Environmental Protection Agency (online), 'Information to assist Planning Authorities in the preparation and implementation of SEA for Plans / Programmes / Strategies in Ireland, required to comply with the SEA Directive (2001/42/EC);
- Department of Housing, Local government and Heritage (2022) Strategic Environmental Assessment: Guidelines for Regional Assemblies and Planning authorities.

3.1.2 To ensure the SEA follows best practice and adds real value to the Programme the following relevant documents were also consulted:

- EPA (2020) Second Review of Strategic Environmental Assessment Effectiveness in Ireland;
- EPA (2012) Review of Effectiveness of SEA in Ireland Key Findings & Recommendations;
- EPA (2018) SEA Effectiveness in Ireland – Action Plan 2018 – 2020; and
- EPA (2020) Ireland's Environment – An Integrated Assessment 2020.

3.2 The SEA Process

3.2.1 The SEA guides were produced by the Government of Ireland in 2004, updated through the Environmental Protection Agency (EPA) Pack, most recently in 2022. In addition, in March 2022, the Strategic Environmental Assessment: Guidelines for Regional Assemblies and Planning Authorities was published. In common with a number of SEA guidance documents, the below table sets out a five-stage process for carrying out SEA. These stages are summarised in Table 3.1 below.

Table 3.1: Stages in the SEA Process

Stage	Tasks
Pre-review	If SEA is not mandatory, screen for possible significant environmental effects
Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope	Step 1: Describe briefly the statutory purpose, geographic area, population, and timeframe of the plan, and its relationship (both vertical and horizontal) with other plans/programmes.
	Step 2: Summarise the main findings of the survey and analysis stage.

Stage	Tasks
Initial public consultation	Step 3: Describe in general terms the current state of the physical environment of the area, with particular reference to (a) areas of environmental importance (such as protected sites); and (b) areas experiencing environmental problems (such as waste, or air or water pollution) at present. Describe how that environment would be likely to evolve on the basis of current development trends but no change in current policies.
	Step 4: Define (a) broad planning policy objectives for the area based on Steps 1 and 2; and (b) relevant environmental policy objectives for the area taking account of national policy and any relevant international legal obligations (e.g. EU Directives).
	Consult the Consultation Bodies on the scope of the SEA.
Stage B: Developing and refining alternatives and assessing effects Stage C: Preparing the Environmental Report	Step 5: Identify a number of reasonable alternative development strategies for the area which are capable of fulfilling the policy objectives established in Step 4.
	Step 6: Evaluate these alternative strategies against the chosen planning and environmental policy objectives (step 4), with a view to establishing the most sustainable option.
	Step 7: Select the preferred strategy (which may combine elements of different strategies), stating reasons for the choice, and work it up with detailed policy objectives.
	Step 8: Carry out an environmental assessment of the preferred strategy to determine whether implementation would be likely to cause any significant effects on the environment (in particular, the aspects listed in Annex I of the SEA Directive, such as biodiversity, air, cultural heritage, etc.).
Stage C: Preparing the Environmental Report	Step 9: Modify the preferred strategy to eliminate, reduce or offset any significant adverse effects, as appropriate.
	Step 10: Propose monitoring measures in relation to any likely significant environmental impacts.
	Step 11: Prepare a non-technical summary.
Stage D: Consulting on the draft plan or programme and the Environmental Report	Consult the public and Consultation Bodies on the draft plan or programme and the Environmental Report.
	Assess significant changes.
	Make decisions and provide information.
Stage E: Monitoring the significant effects of implementing the plan or programme on the environment	Develop aims and methods for monitoring.
	Respond to adverse effects.

3.2.2 This Environmental Report is the main output of Stage C of the SEA process presented above, incorporating Stage B.

3.3 Links with Appropriate Assessment

3.3.1 Under Article 6(3) of the Habitats Directive, an Appropriate Assessment (AA) is required where a plan or project is likely to have a significant effect upon a European site, either individually or in-combination with other projects. The purpose of AA is to protect sites designated as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) – collectively known as Natura 2000 sites – including maintaining the integrity of the internationally important species and habitats for which they were designated.

3.3.2 There are clear links and analogies between AA and SEA. They are parallel but separate processes that commonly overlap but also differ in some key respects. AA is narrower in focus and requires more rigorous tests, with the conservation and protection of Natura 2000 sites at its core. Nonetheless both SEA and AA contribute to the integration of environmental considerations in the adoption of a programme and promotion of sustainable development.

3.3.3 The three main inter-relationships between AA and SEA are:

- AA is a tool that assists in addressing environmental issues as part of the SEA in relation to Natura 2000 sites;
- AA assists the SEA process in the systematic and explicit appraisal of alternatives in relation to Natura 2000 sites; and
- Undertaking AA in parallel with SEA provides for an efficient use of resources and expertise. Both processes benefit each other's findings.

3.3.4 The AA is carried out alongside the SEA of the Regional Programme. The results of the AA process are summarised in Section 6.5 of this report and can be read in full in the Natura Impact Statement.

3.4 Sustainability Topics and SEA Objectives

3.4.1 The baseline data, key environmental issues and SEA Objectives have been presented through a series of sustainability topics derived from Annex I(f) of the SEA Directive, namely: biodiversity, flora and fauna; population; human health; soil; water; air; climatic factors; material assets; cultural heritage (including architectural and archaeological heritage); landscape; and natural capital (the inter-relationship between these).

3.4.2 The purpose of the SEA Objectives is to ensure that the assessment process is transparent and robust and that the review of the Regional Programme considers and addresses potential environmental effects. The SEA Objectives against which the Regional Programme has been assessed against are detailed in Table 3.2 below.

Table 3.2: SEA Objectives

SEA Objective	Sub-objective (Will the Programme…?)
1. Ecology and Nature Conservation – Protect,	a. Maintain and enhance internationally and nationally designated sites

SEA Objective	Sub-objective (Will the Programme…?)
enhance and manage biodiversity assets and ecosystems	b. Maintain and enhance locally designated sites and priority habitats c. Maintain and enhance the amount, variety and quality of ecosystems d. Maintain and enhance the amount and variety of living species e. Benefit protected and priority species
2. Health and Quality of Life – Improve health and quality of life	a. Improve long-term health and wellbeing regionally b. Improve social and cultural structures c. Encourage healthy living through travel opportunities such as walking, cycling and other physical activity d. Safeguard from environmental risks to the health and wellbeing
3. Socio-economic – enhance life opportunities and promote strong community cohesion	a. Support and facilitate growth of Irish business and enterprise b. Reduce deprivation, inequality and poverty and increase social exclusion c. Improve access to education, training, employment opportunities, community facilities/services and greenspace d. Support post-Covid economic recovery
4. Soil and Land Use – Protect and enhance soil quality	a. Safeguard and improve the highest quality soil and agricultural land b. Reduce soil pollution and degradation c. Encourage sustainable food production and consumption d. Encourage use of previously developed land and vacant or derelict premises e. Support the remediation of contaminated land
5. Water – Protect, enhance and manage water resources and flood risk	a. Support the sustainable management of water resources b. Protect, maintain, and improve the status of surface, ground and marine waters c. Avoid development that will increase risk of flooding or mitigate through the use of sustainable water management solutions d. Sustainably manage the risks associated with flooding, accounting for the likely increase in such events due to climate change
6. Air Quality – Reduce air pollution and ensure continued improvements to air quality	a. Facilitate the improvement of air quality in rural and urban areas b. Support increased uptake of sustainable transport
7. Climate Change – Minimise contribution to climate change and adapt to its predicted effects	a. Support the programme area in reducing its GHG footprint b. Encourage use of renewable energy c. Improve climate change resilience and adaptation capacity d. Improve the resilience of existing infrastructure and housing stock alongside integrating sustainable design into future developments

SEA Objective	Sub-objective (Will the Programme…?)
8. Material Assets – Conserve natural resources and reduce waste production	a. Safeguard natural resources (including minerals, soils, commercial fish stock and natural capital) and minimise unsustainable use b. Increase recycling rates and re-use of materials in line with circular economy
9. Historic Environment – Protect, enhance and manage archaeological and cultural heritage	a. Preserve and enhance designated and non-designated sites and areas b. Preserve and enhance archaeological sites
10. Landscape - Protect, enhance and manage the character and quality of the landscape	a. Maintain and enhance the quality and character of landscape, townscape and coastal areas b. Maintain and enhance designated sites c. Create, maintain and enhance public open space and green infrastructure assets
11. Natural Capital	a. Encourage multifunctionality of greenspace to enhance human health and quality of life, water, soil and air quality, climate regulation and biodiversity simultaneously b. Encourage cultural and outdoor recreational tourism that is landscape and nature based c. Improve knowledge and understanding of and connection with the natural environment. d. Strengthen positive natural connections and interactions between territories e. Encourage biophysical changes such as restoration of degraded land and enhanced connectivity of greenspace

3.5 Assessment Methodology

3.5.1 This stage of the SEA process involves the identification and evaluation of the likely significant effects on the environment of implementing the Regional Programme and its reasonable alternatives. This follows a matrix approach and has been carried out in several stages to include high level and detailed matrix assessments, and a descriptive cumulative effects assessment.

High Level Matrix Assessment

3.5.2 The first step of the assessment process, the high level assessment, is used to identify the likely adverse, beneficial, neutral and uncertain effects of the Regional Programme on the environment. Presented in matrix format, the assessment ascertains how well each of the Policy Objectives (POs) and Specific Objectives (RSOs) meet each of the SEA Objectives. A descriptive summary of the likely effects is provided alongside the matrix.

3.5.3 The high level matrix assessment is not a conclusive tool or model; its purpose is to identify those RSOs for which uncertainties or potential adverse effects may arise. These particular

RSOs and the PO they come under would then typically undergo further scrutiny at the detailed matrix assessment stage.

3.5.4 A high level matrix assessment has also been carried out on the three strategic alternatives provided by SRA. This enables comparisons to be drawn between how well each alternative option correlates with the SEA Objectives.

3.5.5 The key used in the high level matrices is as follows:

Key for Likely Effects	
++	Likely strong beneficial effect
+	Likely beneficial effect
0	Neutral / no effect
-	Likely adverse effect
- -	Likely strong adverse effect
+/-	Uncertain effect

Detailed Matrix Assessment

3.5.6 The second step of the assessment process is typically used to scrutinise the potential adverse or uncertain effects that have been identified by the high level assessment. Each PO identified as potentially having such effects has been analysed against each of the SEA Objectives in more detail.

3.5.7 In order to determine the likely significance of effects, this process addresses the range of criteria identified in Annex II of the SEA Directive (reproduced below):

"Characteristics of the effects and of the area likely to be affected, having regard, in particular, to:

- the probability, duration, frequency and reversibility of the effects,

- the cumulative nature of the effects,

- the transboundary nature of the effects,

- the risks to human health or the environment (e.g. due to accidents),

- the magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected),

- the value and vulnerability of the area likely to be affected due to:

special natural characteristics or cultural heritage,

exceeded environmental quality standards or limit values,

intensive land-use,

- the effects on areas or landscapes which have a recognised national, Community or international protection status."

3.5.8 The detailed matrices used in the assessment of the Regional Programme include consideration of the duration, frequency, permanence and geographic extent of effects (including transboundary effects) which feed into the consideration of magnitude (i.e. the

degree of change that the proposed objective would have on the environment). This is then correlated with the value and vulnerability of the receiving environment, which includes consideration of the protected status of the area.

3.5.9 Table 3.3 below shows how significance of effect (which can be beneficial or adverse) is determined. A descriptive summary of the significance of likely effects for each SEA Objective and an overall verdict on the priority scheme assessed is provided alongside each detailed matrix.

Table 3.3: Significance of Effects Matrix

		MAGNITUDE OF CHANGE			
		High	**Medium**	**Low**	**Negligible**
VALUE / VULNERABILITY	**High**	Major	Major/ Moderate	Moderate	Moderate/ Minor
	Medium	Major/ Moderate	Moderate	Moderate/ Minor	Minor
	Low	Moderate	Moderate/ Minor	Minor	Minor/ Negligible
	Negligible	Moderate/ Minor	Minor	Minor/ Negligible	Negligible

3.5.10 The significance of effect can be either adverse or beneficial. The key used in the detailed matrices is therefore as follows:

Key for Significance of Effect	
	Major or Major/Moderate beneficial effect
	Moderate or Moderate/Minor beneficial effect
	Minor or Minor/Negligible beneficial effect
	Negligible beneficial/adverse effect or neutral effect
	Minor or Minor/Negligible adverse effect
	Moderate or Moderate/Minor adverse effect
	Major or Major/Moderate adverse effect

Cumulative Effects Assessment

3.5.11 The SEA Directive (in Annex I) also requires identification and evaluation of likely secondary, cumulative and synergistic effects of the Programme. Cumulative effects are best considered by looking at the Regional Programme as a whole, as the insignificant effects of different objectives may combine with one another to create a significant effect even if individually the objectives are assessed as unlikely to have a significant effect. Synergistic effects go beyond this, producing a total effect that is greater than the sum of the individual effects. Secondary effects are those that are not a direct result of the programme, but where, over time the original effects lead to additional impacts. These

terms are not mutually exclusive, and often the term ‘cumulative effects’ is taken to include secondary and synergistic effects.

3.5.12 In order to ensure that cumulative effects are considered throughout the SEA and the Regional Programme preparation process, some consideration has been given through the SEA Objective ‘Natural Capital’, which is a broad topic that looks at the inter-relationship between all of the other sustainability topics. Such effects have also been considered through the review of other plans and programmes carried out during the scoping process.

3.5.13 The main purpose of the cumulative effects assessment is to report on the identified significant cumulative effects in a transparent and accessible way. This is done in descriptive format, with particular focus on analysis of effects on selected environmental resources; past impacts and future impacts relating to these resources; cumulative impact pathways (including cause-effect relationships); uncertainties and assumptions; and in-combination effects (of the Regional Programme policies identified as having adverse effects in the detailed matrix assessment) with the plans and programmes identified in Section 4.2 and Appendix B.

4 FINDINGS OF THE SCOPING PROCESS

4.1 Scoping Consultation Responses

4.1.1 The first stage of the SEA process is Scoping; this aims to identify the key issues, the main areas of interaction between the Regional Programme and the SEA objectives and set the scope of the SEA. This was completed by RSK and SRA in the beginning of 2022, with the findings published in the SEA Scoping Report.

4.1.2 The SEA Directive requires authorities with "environmental responsibilities" (hereafter referred to as the Consultation Bodies) to be consulted on the scope and level of detail of the information which must be included in the Environmental Report (Article 5(4)). The Directive does not require full consultation with the public or bodies other than Consultation Bodies until the Environmental Report on the programme is finalised. The NIEA has been consulted as transboundary consultees.

4.1.3 A four-week consultation exercise supported by a draft SEA Scoping Report was carried out in March/April 2022. Consultation responses were received from the following organisations:

- EPA;
- DAFM;
- Environmental Protection Division (a division of the DECC);
- Geological Survey Ireland (a division of the DECC);
- Office of Public Works;
- Northern Ireland Environment Agency (NIEA);
- Historic Environment Division – Department for Communities (Via NIEA);

4.1.4 A summary of the consultation responses, relevant to the SEA, and how these have been addressed is set out in Appendix C.

4.2 Other Plans, Programmes and Environmental Protection Objectives

4.2.1 Assessing the relationship of the Regional Programme with the existing international, European and national framework of plans and programmes, and identifying gaps and conflicts is a key part of the SEA process. This includes the consideration of statutory and non-statutory environmental protection objectives.

4.2.2 The scoping process involved an initial review of plans, programmes and environmental protection objectives which has been updated following consultation. Much of the policy environment relating to the Regional Programme is influenced by European Directives and

relevant policies in Northern Ireland have also been taken into account as transboundary considerations.

4.2.3 Plans and programmes containing environmental protection objectives which are relevant to the Regional Programme are listed and assessed in full in Appendix B, the summary of which can be found in section 6.5.

4.3 Summary of Baseline Data

4.3.1 The Environmental Report must contain the following information in respect of baseline conditions:

> *"2. The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.*
>
> *3. The environmental characteristics of areas likely to be significantly affected.*
>
> *4. Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Council Directive 79/409/EEC on the conservation of wild birds and the Habitats Directive."*

4.3.2 A summary of the current state of the environment in Ireland in respect of each of the sustainability topics is provided below with maps provided in Appendix A. A more detailed baseline description is provided in the SEA Scoping Report. Analysis of baseline information has been carried out to provide an evidence base for current and likely future environmental conditions without the Regional Programme.

4.3.3 Much of the baseline data sources that exist are published at a national rather than regional level and that is hence reflected in this section. Where separate regional data sources exist, these are referred to as applicable. Where no regional data exists, reference to national datasets and trends is considered to be the most representative indication available of likely baseline conditions with the programme area. Much of the data within this report has been acquired from The Central Statistics Office (CSO) – Ireland's national statistical office, Environmental Protection Agency (EPA), Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media, and Department of Health.

Ecology and Nature Conservation

Strengths and Opportunities

- Ireland has 439 SACs covering approximately 1.35M ha of which 222 are located within the SRA regions. Ireland further has 165 SPAs covering approximately 597,000 ha of marine and terrestrial habitats of which 85 are located within the SRA regions; 45 Ramsar sites, and 29 of these are located within the SRA regions.
- To date, 75 raised bogs, mainly in the midlands, have been designated as NHAs, covering approximately 23,000 ha. In addition, 73 blanket bogs are also designated as NHAs, covering approximately covering 37,000 ha. Furthermore, the proposed NHAs cover approximately 65,000 ha (NPWS, 2020).
- Under the OSPAR Convention to Protect the Marine Environment of the Northeast Atlantic, Ireland has also committed to establishing Marine Protected

Areas (MPA) to protect biodiversity: nineteen of its SACs are MPAs for marine habitats (NPWS, 2020).

- Ireland's marine environment is particularly biodiverse and is among Europe's richest for cetaceans. Whilst the aquatic systems and wetlands within Ireland support internationally significant populations of birds, fish and invertebrates, Ireland also contains a wealth of freshwater habitats with stocks of game and course fish.
- Ireland has a high proportion of Europe's remaining peatlands, as peat soils cover a large area of the land surface in Ireland (20.6%). To date, 75 raised bogs, mainly in the midlands, are designated as Natural Heritage Areas (NHAs) covering approximately 23,000 ha. In addition, 73 blanket bogs are designated as NHAs, covering approximately 37,000 ha.
- Approximately 57% of the Habitat Directive-listed species in Ireland are in favourable condition and while 72% demonstrate stable or improving trends (Department of Culture, Heritage and the Gaeltacht (DCHG), 2019).
- The recent Countryside Bird Survey (CBS) identified that over an 18-year period, population trend analyses indicate that 47% of species are increasing and 27% of species are stable (Lewis, L. et al., 2019). In terms of seabirds, over a 16-year period, 85% of assessed species were increasing in numbers (Cummins, S. et al., 2019).
- Ireland's biodiversity has a key role in providing ecosystems services and Ireland's ecosystems have recently been mapped as part of a first step towards framework for a National Ecosystem Assessment (Parker, N. et. al, 2016).

Weaknesses and Threats

- The conservation status of 85% of EU protected habitats in Ireland is unfavourable, while 46% are demonstrating ongoing declines in conservation status (Biodiversity Working Group, 2020).
- Agriculture has been identified as a key contributor to the declines in conservation status, with over 70% of habitats being impacted by agricultural practices (DCHG, 2019).
- Coastal and marine biodiversity is coming under pressure from human activities, through direct physical disturbance, habitat degradation and by-catch of marine mammals (DCHG, 2017).
- Peatlands in Ireland are under threat due to habitat change, exploitation invasive alien species, nutrient pollution and climate change (An Taisce, 2020).
- Based on the Article 17 report, of the Habitats Directive-listed species in Ireland, 30% are in unfavourable condition and 15% demonstrate trend of ongoing decline (DCHG, 2019).
- The Red List assessments have shown that just over 14% of the taxa were assessed as under threat of extinction (DCHG, 2017).
- The CBS identified that over an 18-year period, population trend analyses indicate that approximately 26% of species are in decline (Lewis, L. et al., 2019).
- In terms of seabirds, over a 32-year period, 21% of species have decreased in numbers (Cummins, S. et al., 2019).
- The number of the Birds of Conservation Concern on the Red and Amber lists has increased in the latest assessment compared to the previous assessment.

Health and Quality of Life

Strengths and Opportunities

- Life expectancy at birth within Ireland has increased for males since the previous 2012-2015 census, in which it was 78 years old. In the period of 2015-2017, life expectancy for males is 80 years old (Department of Health, 2021).
- Ireland has the highest self-perceived health status in the EU, at state level, 84% of persons report their health status as being very good or good (Department of Health, 2021).
- At state level 86% of persons aged 15 years and over reported having none to minimal depression (Central Statistics Office (CSO), 2019).
- The number of respondents reporting long-standing illness or health condition that will last for >6 months has fallen by 4% within a year, to 28% in 2020 (Department of Health, 2021). In 2019, the Mid-East region reported lowest levels at 22% (CSO, 2019).
- Latest available data demonstrates there are 3.34 doctors per 1,000 people in Ireland, which is favourable to other comparable countries (Nuffield Trust, 2021).

Weakness and Threats

- In Ireland, 37% of the surveyed population are overweight and 23% are obese. More people report gaining weight since the start of the Covid-19 restrictions, as 29% of respondents report that their weight has increased (Department of Health, 2019).
- Two in five (40%) of those aged 75 and older report being limited to some degree by health problems, compared to 9% of those aged under 35 (Department of Health, 2021).
- The effect of the Covid-19 associated restrictions is that approximately one in every five persons in the population has significantly increased psychological distress (e.g. anxiety, depression) (Irish Medical Journal, 2020).
- At a regional level in 2019, the Midland region reported highest levels of respondents dealing with a long-term condition at 31% of those aged 15 and over (CSO, 2019).
- Hospital activity has been extensively affected by the pandemic, with total discharges falling over 14% in 2020, and Emergency department (ED) attendances falling over 15% (Department of Health, 2021).

Population and Socio-economics

Strengths and Opportunities

- Between 2011 and 2016, the national population of Ireland has grown by 3.8% from 4,588,252 to 4,761,865 (Trinity College Dublin, 2019).
- Growth in the cities and suburbs outpaced overall Regional and State level growth from 2011-2016.
- In Ireland nearly 47% of 25-64 year olds have attained a tertiary education (OECD, 2019). Dún Laoghaire-Rathdown had the highest percentage of persons

with a third level qualification at 61.1%, followed by Dublin City and Fingal at 48.7%.

- Within the programme area, Dublin, Cork, Kildare, Meath and Wicklow are the counties which are marginally above average for Deprivation Index (Haase, T., and Pratschke, J., 2017).
- Out of the NUTS2 regions in the programme area, Dublin presents 9.8% for At Risk of Poverty Rate, followed by Mid-East with a rating of 11.7%, which were the lowest within Ireland as a whole (CSO, 2019).
- Dún Laoghaire-Rathdown presented lowest overall unemployment rate within Ireland, with a rate of 7.4% in 2016 (CSO, 2016).
- According to the Regional Sustainable Development Goals (SDGs) Ireland 2019, the percentage of Irish people living in consistent poverty has decreased, from 6.7% in 2016 to 5.6% in 2018.
- In 2021, the government published the 'Housing for All' housing plan and committed to eradicating homelessness by 2030 (DHLGH, 2021).

Weaknesses and Threats

- There is evidence of significant population decline in smaller towns and villages in the Southern Region.
- In Ireland, counties Longford and Wexford had the lowest percentage of persons with a third level qualification at 32.5%, followed by Offaly at 32.7% (CSO, 2016).
- Within the programme area, counties other than Dublin, Cork, Kildare, Meath and Wicklow are marginally below average Deprivation Index (Haase, T., and Pratschke, J., 2017).
- Children remain the most vulnerable to poverty age group in 2018, with over four times higher chances than those aged 18-64.
- Within the programme area, South-East presents 21.4% for At Risk of Poverty Rate, which is the highest for any region within Ireland (CSO, 2019).
- The number of unemployed persons in Ireland rose by 48.6% as of 2021 (CSO, 2021). The overall unemployment rate for all persons aged 15-74 increased from 4.7% to 7.1% between 2020 and 2021.
- Allied to continued growth in rented accommodation (CSO, 2016), close to half (49.5%) of tenants who are 65 or over are spending more than 35% of their disposable income on rent.
- The number of homeless persons in Dublin is highest in Ireland, as there are 4,287 homeless persons as of 2021 (DHLGH, 2021).

Soil and Land Use

Strengths and Opportunities

- Irish raised bogs are the most important remaining in Europe, whilst Ireland is the most important country in Europe for blanket bog and holds 8% of the world's extent of this habitat (Irish Peatland Conservation Council, 2020).
- Approximately 64% of Ireland's land in 2020 has been suitable for agriculture (Department of Agriculture, Food and Marine, 2020), with a further 11.2% used

for forestry (CSO, 2020). Irish soil quality is satisfactory overall, attributed to the late introduction to the industrial revolution.

- Soil types vary significantly throughout Ireland; in the southeast Ireland has well drained, highly fertile and highly productive soils (e.g. acid brown earths), while other regions (north west and south west) are covered by blanket peats that have limited use for agricultural production.
- The average farm size in Ireland has increased by 0.7 ha (or 2.2%) in 2020. Of the 135,037 farms, 42% were in the programme area (CSO, 2020).
- Green, Low-Carbon, Agri-Environment Scheme (GLAS) is the latest Agri-environmental scheme in Ireland. Extensions to existing contracts are running in 2022.
- Since the foundation of the State, forest cover in Ireland has grown from 1.4% of the land area, to the current 11% and is now estimated to be at its highest level in over 350 years at 770,000 ha (DAFM, 2020).
- Ireland has a notably diverse geology that is prospective for a wide range of mineral deposits.
- The number of brownfield sites or facilities with contaminated land legacies (estimated at between 2,000 and 2,500) is significantly less in Ireland than those of most other more industrialised European countries.

Weaknesses and Threats

- There has been significant damage to peatlands within the SEM regions due to peat extraction and agricultural improvement with the associated drainage and burning.
- There is increasing pressure on soil, particularly from land use changes, intensification of agriculture, erosion and overgrazing, afforestation, industry and urbanisation.
- In Ireland there were 135,037 farms in 2020, showing a 3.4% reduction on the last Census of Agriculture numbers in 2010 (CSO, 2020). There has also been a small decrease in total agricultural land use since the last assessment from 2012, but there is an overall downward trend with a reduction of 8,230 ha since 1990 (EPA, 2020).
- GLAS Agri-environmental scheme ceased submission of new applications since 2017.
- Since 2000, the main change in land cover has been from agriculture to forestry (10% increase) and a further 15% increase in artificial area due to increases in urban, commercial and industrial development, transport infrastructure, and recreational facilities (EEA, 2015).
- Many peatland soils are not protected and may be vulnerable to intensification of use with consequential impacts (amongst others) on carbon sequestration.
- Land drainage, reclamation for agricultural purposes and peat extraction have all impacted peatlands. Only 10% of the original raised bog and 28% of the original blanket peatlands resource are suitable for conservation (as natural peatlands) (EPA, 2020).
- The main pressure on soils in Ireland is from soil sealing, and artificial areas with sealed soils have increase by 65% since 1990, although this has stabilised since 2012 (EPA, 2020).

- Soil compaction is another pressure which can lead to increased surface run-off, flooding, erosion and transport of nutrients and agrochemicals to open water.
- Intensive land management can also lead to negative impacts on soil biodiversity (EPA, 2020).
- In Ireland there is very little specific legislation or policy mechanism to protect soils (apart from habitat based legislation) and to deal with the remediation of contaminated soils (EPA, 2020).

Water

Strengths and Opportunities

- Ireland has a relatively abundant supply of fresh water, which constitutes a key resource in economic, amenity and aesthetic terms.
- Measures to address wastewater discharges are being implemented through Irish Water's Capital Investment Plan 2020 - 2024 which prioritises investment to deliver the most needed improvements (Irish Water, 2021).
- All local authority wastewater discharges must now be authorised by the EPA and conditions may be imposed in order to protect the environment.
- The Agricultural Catchment Programme (ACP) is used to evaluate the impact of Ireland's Nitrates Action Programme (NAP) and the Nitrates Derogation which are implemented under the Nitrates Directive.
- Ireland's third River Basin Management Plan (RBMP) 2022-2027 is currently in the public consultation stages, in draft format. The RBMP sets out the actions to improve overall water quality and achieve 'good' ecological status in water bodies.
- The levels of seriously polluted river water have fallen from an average annual 0.9% in 1987-1990 to 0.2% in 2016-2018 (CSO, 2021).
- In 2020, 89.2% of bathing water sites surveyed had good water quality and 95.9% had sufficient water quality; 76% of groundwater bodies, 57% of rivers, and 56% of lakes were found to be of satisfactory quality (EPA, 2020).
- There was an increase in the proportion of samples showing low volumes of nitrates in watercourses, from 16% in 1995-1997 to 22% in 2020 (CSO, 2021).

Weaknesses and Threats

- Water quality in Ireland has deteriorated over the past two decades, sewage and diffuse agricultural sources are the main threat to Ireland's surface water quality.
- The percentage of unpolluted river water decreased from an average annual 77.3% in 1987-1990 to 66.2% in 2016-2018. The proportion of moderately polluted river water increased from an average annual 9.7% in 1987-1990 to 11.2% in 2016-2018 (CSO, 2021).
- Approximately 43% of rivers are still in unsatisfactory quality (EPA, 2020).
- Despite an increase in the proportion of samples showing low volumes of nitrates in watercourses, there was an increase in the proportion of samples with higher nitrate levels. From an average 20% in 1995-1997 to 24% in 2020 (CSO, 2021).

Air Quality

Strengths and Opportunities

- In the Air Quality Index rankings 2021, Ireland ranked 98th out 106 countries which is perceived as a 'good' average (IQAir, 2022).
- Ireland continues to be compliant with the EU air quality standards for most pollutants such as Particulate Matter (PM_{10} $PM_{2.5}$), Nitrogen Dioxide (NO_2), ozone, polycyclic aromatic hydrocarbons (PAH) and Dioxins (EPA, 2021).
- The EPA's latest Informative Inventory Report 2021 estimated an overall reduction trend in emissions between 1990 and 2019 (EPA, 2021)
- Emissions of SO_2 in Ireland continue to be within the required EU emission limits and continue to decrease (EPA, 2021).

Weaknesses and Threats

- There are some localised air quality issues in smaller towns and villages associated with pollutants such as NO_2 and PM. $PM_{2.5}$ is the most problematic pollutant in Ireland from an air quality point of view (EPA, 2021).
- There are areas of Dublin city and its suburbs where the EU annual limit value (40 ug/m3) for NO_2 have been significantly exceeded. Concentrations of NO_2 were highest at urban traffic locations (EPA, 2019).
- Ireland has higher than average per capita emissions of CH_4 and NO_2 from any of the EU member states (EPA, 2020).
- Wood and peat burning is emerging as a significant contributor to PAH and PM levels, along with a wide variety of other solid fuel products that are on the market.
- Ireland performed poorly when examined on progress towards the 2010 targets set by National Emissions Ceilings Directive (NECD) in 2015. Primarily, due to Ireland exceeding its emission ceiling for ammonia for 7 of the years between 2010 and 2019 (EPA, 2021).
- Ammonia emissions have increased by approximately 14.4% between 1990 and 2019, predominantly due to emissions from agriculture, presenting a challenge to meeting the NECD 2030 emission reduction target (EPA, 2021).
- NOx and Non-methane volatile organic compound (NMVOCs) emissions have both been non-compliant with the emission ceilings from the previous NECD (2001/81/EC) for the period 2010 to 2018 (EPA, 2020). The 2021 inventory report also predicted that NOx emissions would not meet the 2020 emission reduction target.

Climate Change

Strengths and Opportunities

- Within Ireland growing seasons fluctuate and since the 1980s, there has been a tendency for a longer agricultural growing season, which could allow for an increased productivity (e.g. crop yields) and new planting opportunities in agricultural and forest settings.
- In 2020, Ireland's GHG emissions are estimated to be 3.6% lower (or 2.14 Mt CO2eq) than emissions in 2019 (59.84 Mt CO2eq) (EPA, 2021).

- Ireland committed to halving its GHG emissions by 2030 and reaching net zero by 2050 at the latest (DECC, 2021). At present the 2030 emission reduction target is expected to be achieved. Among the most critical measures in The Climate Action Plan is to increase the proportion of renewable electricity to up to 80% by 2030.
- Energy related CO_2 emissions (including international aviation) fell by over 11% (4.3 million tonnes) in 2020, which is the most significant annual reduction since the economic recession in 2009 (SEAI, 2021).
- Ireland had two binding European targets in 2020 - 16% renewable energy share (RES-Overall) in gross final consumption of energy and a 10% renewable energy share in transport (RES-T). Ireland succeeded against one of its targets, the 2020 renewable energy share in transport (RES-T) target (10.2% vs. 10%).

Weaknesses and Threats

- The effects of climate change are likely to impact Ireland in many ways. Agriculture is highly susceptible to disruption due to climate change and extreme weather events such as prolonged periods of rainfall, drought and snow, whilst flood risk is also of particular concern for infrastructure.
- CO_2 from burning fossil fuels accounted for most (60.9%) of all GHG emissions in Ireland in 2020 (SEAI, 2020).
- Breaking down Ireland's total emissions further, GHG from agriculture make up a large share of emissions. In 2020 agricultural sector was responsible for 37.1% of all GHG emissions, up from 33% in 2018 (EPA, 2022).
- As mentioned above, Ireland had two binding European targets in 2020 - 16% renewable energy share (RES-Overall) in gross final consumption of energy and a 10% renewable energy share in transport (RES-T). To achieve the 16% RES-Overall target, Ireland set two further targets - 40% renewable energy share in electricity (RES-E) and 12% renewable energy share in heating and cooling (RES-H) (SEAI, 2021). Ireland reached an overall share of 13.6% renewable energy, below its RES-Overall target of 16%. Ireland just missed its national RES-E target (39.1% vs. 40%) and achieved just half its national RES-H target (6.3% vs. 12%).

Transboundary Considerations

- Ireland shares a land boundary with Northern Ireland, where the 2005 - 2014 decade was 0.7^{o}C warmer than the 1961-1990 average. Such changes in temperature extremes have implications for agriculture and health (ASC, 2016).

Material Assets

Strengths and Opportunities

- Valuable natural resources of commercial importance include natural gas, peat, copper, lead, zinc, silver, barite, gypsum, limestone, dolomite (IndexMundi, 2020).
- The development of Irish mineral deposits is an important component of the economy. Exploration has been undertaken in the last few years for platinum group metals (PGM) minerals, rare earth and speciality minerals, nickel and

chromite and diamonds (DECC, 2021). The Low Carboniferous carbonate rocks of the Irish Midlands are host to one of the great ore fields of the world.

- Altogether 40% of Ireland's municipal waste was exported for recycling or recovery in 2019, 5% higher than in 2018 (EPA, 2021).
- Ireland achieved an overall packaging recycling rate of 62% in 2019 and is exceeding the current Packaging Directive recycling target of 22.5% (EPA, 2021).
- Wind is the largest source of renewable energy, accounting for 56% of all renewable energy in 2020, up by 15% in comparison to 2019 (IEA, 2020).
- Ireland has improved energy security through an increase in domestic gas production, as oil use in Ireland decreased by 16.5%. Natural gas accounted for 34% of primary energy in 2020, from 31% in 2019 (SEAI, 2021).

Weaknesses and Threats

- Ireland had the sixth highest level of municipal waste generated per capita in the EU at 564kg in 2015 (CSO, 2018). Municipal waste accounted for over 3.1 million tonnes in 2019, a 6% increase from 2018 (EPA, 2021).
- The revised Packaging Directive sets ambitious plastic packaging recycling targets of 50% for 2025 and 55% for 2030. This presents a challenge for Ireland, as only 28% of plastic packaging was recycled in 2019, down from 31% in 2018.
- Ireland remains heavily reliant on export markets, particularly for recycling: In 2019, only 16% of packaging waste was recycled in Ireland. A further 45% was exported for recycling and 33% was exported for energy recovery (EPA, 2021).
- Ireland did not meet its EU 2020 overall renewable energy target. The overall share of renewable energy was 13.5%, compared to the target of 16%. Ireland just missed its renewable energy target for electricity 39.1% vs. 40% (SEAI, 2021).
- In 2020, fossil fuels accounted for 86% of Ireland's total primary supply of energy. Oil continues as the dominant energy source, comprising 45% of primary energy in 2020, down from 49% both in 2018 and 2019.

Historic Environment

Strengths and Opportunities

- Ireland has almost 1000 individual monuments at 768 locations under state care. There are 150,800 recorded monuments on the Record of Monuments and Places (RMP) and over 138,800 of these relate to archaeological monuments (NMS, 2020).
- Ireland has two UNESCO World Heritage Sites (Brú na Bóinne and Skellig Michael); both situated in the SEM regions. There are currently seven sites on tentative list (WHC, 2021).
- The Built & Archaeological Heritage Climate Change Sectoral Adaption Plan (DCHG, 2019) includes actions to build adaptive capacity and reduce vulnerability to climate change, as well as identify and capitalise on various potential opportunities in the sector.
- The Heritage Council of Ireland produced an 'Annual Report 2019' which sets out objectives in advancing national heritage priorities (HCI, 2019).

Weaknesses and Threats

- The Built & Archaeological Heritage Climate Change Sectoral Adaption Plan (DCHG, 2019) acknowledges the vulnerability of Ireland's built and archaeological heritage to impacts of climate change.
- An issue for rural areas across Ireland has been the on-going and gradual decline in archaeological monuments in the countryside and degradation of field monuments (Dublin and Mid-East Regional Authorities, 2010).
- The main pressures on Irish archaeology includes urban change, road building, construction of houses and other developments, access to uplands and wetlands, concentration and intensification of commercial farming, scrub encroachment and extensive afforestation on traditional rural landscapes, exploitation of peatlands and marginalisation of built heritage within national and EU environmental conservation measures (University College Dublin, 2006).
- Public consultation as part of the new national heritage plan identified concerns over built heritage including tourism, derelict structures, demolition of structures, lack of care of historic structures, decline in traditional crafts (DCHG, 2020).

Landscape

Strengths and Opportunities

- There are six areas designated and recognised as nationally important landscapes within Ireland. All of these are National Parks.
- Within the programme area, there are three National Parks: Wicklow Mountains National Park located within County Wicklow; Burren National Park in County Clare; Killarney National Park in County Kerry.
- The National Landscape Strategy was published in 2015 ongoing to 2025 which will be used to ensure compliance with the European Landscape Convention.
- Ireland's land use is predominantly agricultural, and the countryside has become increasingly important for forestry, recreation and tourism. Ireland forestry land cover has increased from 6.8% in 1990 to 11.4% in 2020 (The World Bank, 2021).

Weaknesses and Threats

- The Landscape Character Assessment (LCA) in Ireland report (Heritage Council, 2006) raised concerns over the urbanisation and landscape fragmentation experienced in Ireland due to extensive new housing, major roads and other infrastructure projects.
- Urbanisation and landscape fragmentation may affect Ireland's tourist economy, as scenery is the single most important reason why people visit and holiday in Ireland (Heritage Council, 2006).
- Although commitment has been made to prepare 'State of Landscape Reports' and National Landscape Character map, these have not yet been implemented which makes it difficult to plan important strategic infrastructure (EPA, 2020).

Natural Capital

Strengths and Opportunities

- Comhar SCD created a preliminary map of green infrastructure assets throughout Ireland, including designated nature conservation sites; watercourses; landcover classes: and recreational assets.
- A number of studies to date have identified the value or importance of freshwater systems, marine systems and animal pollination (Feeley, H.B. et al, 2017, Norton, D. et al, 2018 and Stout, J.C. et al., 2019).
- A study looking at the value of marine ecosystems identified the economic value provided by fisheries and aquaculture, seaweed harvesting, recreational, carbon absorption, waste assimilation, scientific and educational, coastal defence and aesthetic services (Norton, D. et al, 2018).
- The scenery is seen as the reason why people visit Ireland (Heritage Council, 2006). Overseas arrivals increased by 1.8% in 2019, over 191,000 more arrivals than in 2018 (Tourism Ireland, 2020). These are the most recent years in which direct comparison is possible due to the effects of Covid-19 on international travel in 2020 and 2021.

Weaknesses and Threats

- There is still difficulty in accounting for non-market and non-use values for human health, well-being and society.
- The inter-relationships between the sustainability topics mean that negative impacts or the worsening of status or quality of a sustainability topic affects the other sustainability topics, for example:
    - Biodiversity is affected by negative impacts on soils and land, air, water, landscape and climatic factors.
    - Human health is affected by impacts on air, water, soils, climate factors and biodiversity. The Pollival project identified that pollinator loss and resultant dietary changes and micronutrient deficiencies could result in non-communicable and malnutrition-related diseases (Stout, J.C. et al., 2019).
    - Population (socio-economics) is affected by all of the sustainability topics.

4.4 Key Environmental and Sustainability Issues and Likely Future Trends

4.4.1 The Sustainable Development Goals National Implementation Plan 2018 - 2020 was published in direct response to the 2030 Agenda for Sustainable Development to identify and prioritise policy areas and mechanisms where sustainable measures will add value to the lives of current and future generations. The 2030 Agenda is a plan of action for people, planet and prosperity (UN, 2015) which encourages countries to integrate and focuses on the 17 SDGs, one of which is protection of the environment. Work is now commencing on the development of the next Sustainable Development Goal National Implementation Plan.

4.4.2 The CSO conducted the Household Environmental Behaviours - Environmental Concerns Quarter 3 2021. The report analyses the attitudes and concerns of Irish households in

relation to the environment. The issue that received the highest proportion of 'Very important' responses was water pollution. Over 79% of Irish households rated this issue as being very important. Plastic waste was the second most highly rated issue at 74%. Over 69% of Irish households rated climate change as very important. When asked about the best way to tackle problems with air pollution 73% of households support stricter air pollution controls on industry and energy production but only 29% support urban traffic restrictions (CSO, 2021).

4.4.3 The EPA's 'Ireland's Environment: An Integrated Assessment 2020' report shows that there is an immediate need for innovative and contemporary approaches to address climate change and biodiversity decline; as well as highlights other environmental priorities for Ireland, such as combatting air and water pollution, investing in water services, protection of valuable natural resources including peatlands, reducing reliance on non-renewable energy sources, improving air quality and recycling rates.

4.4.4 Key environmental messages for Ireland from the 2020 state of environment report:

- Need for vision and implementation to protect Ireland's environment and health and wellbeing:
  - SOE 1: Environmental Policy Position – A national policy position for Ireland's environment.
  - SOE 2: Full Implementation – Full implementation of existing environmental legislation and a review of the governance around the coordination on environmental protection across public bodies.
  - SOE 3: Health and Wellbeing – Protecting the environment is an investment in Ireland's health and wellbeing.
- Step up to protect the environment as it is under increasing threat:
  - SOE 4: Climate – Systemic change is required for Ireland to become the climate-neutral and climate-resilient society and economy that it aspires to be.
  - SOE 5: Air Quality – Adoption of measures to meet the World Health Organization air quality guideline values should be the target to aim for in the Clean Air Strategy.
  - SOE 6: Nature – Safeguard nature and wild places as a national priority and to leave a legacy for future generations.
  - SOE 7: Water Quality – Improve the water environment and tackle water pollution locally at a water catchment level.
  - SOE 8: Marine – Reduce the human-induced pressures on the marine environment.
- System Change – Delivery on Sectoral and Societal Outcomes Needs to be Accelerated.
  - SOE 9: Clean Energy – Ireland needs to move rapidly away from the extensive use of fossil fuels to the use of clean energy systems.
  - SOE 10: Environmentally-sustainable Agriculture – An agriculture and food sector that demonstrates validated performance around producing food with a low environmental footprint.
  - SOE 11: Water Services – Drinking water and wastewater infrastructure must meet the needs of our society.

- SOE 12: Circular Economy – Move to a less wasteful and circular economy where the priority is waste prevention, reuse, repair and recycling.
- SOE 13: Land Use – Promote integrated land-mapping approaches to support decision-making on sustainable land use.

4.4.5 From analysis of the baseline data the key sustainability issues facing the programme areas are thought to be:

Ecology and Nature Conservation

- Unfavourable condition of habitats and species in protected sites due to unsustainable agricultural and fishing practices;
- Continuing declines in species and habitats within protected areas, particularly from agriculture;
- Continuing decline in species and habitats outside of protected areas;
- Threats facing areas outside of protected areas;
- Continuing increase in pressure to coastal and marine biodiversity from man-made pressures; and
- Continuing threats facing habitats and resource due to climate change, habitat exploitation and nutrient pollution.

Health and Quality of Life

- High levels of obesity, particularly since the start of the Covid-19;
- High levels of older population being limited by health problems;
- High levels of mental health illnesses amongst the population;
- Negative effects of the pandemic on hospital activity; and
- High levels of population dealing with long-term conditions within Midland region.

Socio-economics

- Continuing declines in percentage of people living in smaller towns and villages in the Southern Region;
- Within the programme area, many counties are below average Deprivation Index;
- Rising unemployment rates, which may be partly due to Covid-19;
- Children remain the most vulnerable to poverty age group; and
- High numbers of homeless persons, particularly in Dublin.

Soil and Land Use

- Increasing pressure on soil, particularly from human activities;
- Declines in total agricultural land use since last Census of Agriculture;
- Only a small portion of the original raised bog and blanket peatlands resource are suitable for conservation as natural peatlands;
- Continuing disturbance of degraded peatlands by domestic and industrial peat extraction, invasive species and human activities;
- Increase in pressure on soils due to soil sealing as more artificial areas are built;
- Threat of soil compaction; and

- Scarce availability of specific legislation or policy mechanisms to protect soils.

Water

- Poor water quality has been caused by municipal wastewater treatment plants and diffuse agricultural sources;
- Increase in number of slightly and moderately polluted rivers, as nearly half of Ireland's rivers remain in unsatisfactory quality; and
- Increase in the proportion of watercourses with higher nitrate levels.

Air Quality

- Localised air quality issues associated with NO_2 and PM, particularly in Dublin;
- Higher than average per capita emissions of CH_4 and NO_2 from any of the EU member states;
- Wood and peat burning contribution to PAH and PM levels;
- Increasing ammonia emissions and non-compliance with the NECD emission targets; and
- NOx and NMVOC emissions non-compliance with the NECD emission targets.

Climate Change

- Burning of fossil fuels accounts for a large share of GHG emissions, particularly in relation to agricultural sector;
- Non-compliance with the EU 2020 overall renewable energy target (RES-Overall); and
- Increasing threat of climate change impacts, e.g. susceptibility of agricultural practices to disruption due to extreme weather events, whilst flood risk is of particular concern for infrastructure.

Material Assets

- Challenge in meeting the revised Packaging Directive plastic packaging recycling targets for 2025 and 2030;
- Heavy reliance on export market, for recycling in particular; and
- Oil continues to be the dominant source of energy in Ireland, comprising just under a half of primary energy supply.

Historic Environment and Landscape

- Vulnerability of built and archaeological heritage to impacts of climate change; and Landscapes have been affected by housing and infrastructure development, demolition of structures, agricultural intensification, forestry and decline/ loss of natural and cultural features due to lack of care;
- Decline in archaeological monuments in the countryside and degradation of field monuments;
- Vulnerability of Ireland's tourist economy to urbanisation and landscape fragmentation, as a result of natural scenery loss; and
- Difficulty planning important strategic infrastructure, as National Landscape Character maps have not been implemented yet.

Natural Capital

- Difficulty accounting for non-market values for human health, well-being and society; and
- Inter-relationship between sustainability topics, as worsening of status or quality of a sustainability topics has the potential to negatively influence other sustainability topics.

5 CONSIDERATION OF ALTERNATIVES

5.1 The Process

5.1.1 Consideration of alternatives is a key feature of the SEA process as defined by the SEA Directive and the Ireland SEA Regulations. In practical terms, it refers to possible alternative mechanisms for delivering the Regional Programme, and the assessment of the impacts of each of these options against the SEA objectives.

5.1.2 Guidance had been taken from the EPA Research Report, *Developing and assessing alternatives in Strategic Environmental Assessment (*2013), which includes 17 recommendations for identifying and development of alternatives.

5.1.3 Some of the key recommendations from the EPA Research Report are to:

- Collaborate with the plan's/programme's proponent closely and continuously;
- Consult with relevant stakeholders extensively;
- Develop alternatives early in the assessment process;
- Describe the proposed alternatives in the Scoping Report;
- Develop alternatives that are realistic, reasonable, viable and implementable; and
- Ensure that alternatives reflect the objectives and geographical scale of the plan/programme.

5.1.4 As discussed in the EPA (2013) guidance, the SEA should focus on the alternative delivery options that were considered in the preparation of the policy document. The alternatives presented below were identified at an early stage within the Programme's development by SRA as the body responsible for developing the Programme.

5.1.5 With European funded programmes such as this, consideration of practical alternatives is often constrained by the need to comply with pre-set criteria established at a European level. This can have the effect of limiting the range of alternatives that are available to the programme makers. As stated in the EPA research report, a 'do nothing' approach is not a reasonable alternative for mandatory plans/programmes or their revision.

5.2 Alternative Policy Options / Delivery Mechanisms

5.2.1 Regulation (EU) 2021/1060 ["the Common Provisions Regulations"] sets out five PO's that the ERDF, the European Social Fund (ESF+), the Cohesion Fund and the European Maritime, Fisheries and Aquaculture Fund (EMFAF) shall support. These are PO1-PO5 detailed in Section 2.4.1.

5.2.2 Reg (EU) 2021/1059 ["the ERDF Regulations"] requires that a region in transition allocates at least 40% of ERDF resources to PO1 and at least 30% of ERDF resources to PO2. This is known as thematic concentration. The ERDF Regulations also require that at least 8 % of the ERDF resources be allocated to sustainable urban development. Any programme alternatives under consideration need to meet these minimum requirements.

5.2.3 The ERDF Regulations also sets out twenty-three specific objectives and the scope of support from the European Regional Development Fund. Given the limited funding, it is not possible to address some of these objectives. The Programme will therefore focus on a

limited number of policy aims, specific objectives and actions, with a well-articulated intervention logic at the outset. This acts to limit the range of alternatives that are available to the programme body.

5.2.4 The Southern, Eastern and Midland Regional Programme 2021-2027 is focused on the following key strategic outcomes:

1. **Developing Smarter More Competitive Regions** through R&I capacity building within the universities including the new Technological University in the programme area, accelerating the translation of cutting-edge research into commercial applications at a regional level, supporting innovation diffusion and strengthening regional innovation ecosystems in line with Ireland's Smart Specialisation Strategy and Regional Enterprise Plans.
2. **Creating Greener More Energy Efficient Regions and a Just Transition** by focusing on scaling up investment in energy efficiency in line with the Climate Action Plan 2021.
3. **Supporting Sustainable Urban Development in the SEM Region** using an integrated strategic approach to the regeneration of our towns, empowering Local Authorities to gather data and lead actions on regeneration using a Town Centres First Framework.

Alternative 1 – The Programme as Currently Proposed

5.2.5 Alternative 1 includes funding for PO1 (56%), PO2 (30%) and PO5 (14%). Table 5.1 below list actions under Alternative 1.

Table 5.1: Alternative 1

Policy Objective	Specific Objective	Actions	ERDF as % of Total non-TA ERDF Available
PO1	RSO1.1 & RSO1.3	Capacity building within the Higher Education Institutes in the region including the new Technological University Accelerating the translation of cutting-edge research into commercial applications at a regional level Supporting innovation diffusion, enterprise innovation and entrepreneurship in the region Strengthening and developing functional regional ecosystems that support innovation diffusion, enterprise innovation and entrepreneurship in the regions	56%
PO2	RSO2.1	Improving the energy efficiency of residential homes for those at risk of energy poverty	30%
PO5	RSO5.1	Supporting an integrated strategic approach to the regeneration of our towns	14%

Alternative 2 – Alternative Actions

5.2.6 Alternative 2 addresses the same Specific Objectives under the same PO's as Alternative 1. It also maintains the same level of investment of ERDF resources under each of the three PO's.

5.2.7 The key difference is that it proposes an alternative set of actions under Specific Objective 2.1. The focus on promoting energy efficiency and reducing GHG emissions in the programme area remains. However, rather than supporting actions that target improvements in energy efficiency of residential homes for those at risk of energy poverty, the Regional Programme would support actions to retrofit and improve the energy efficiency of public sector buildings. The actions under Alternative 2 are shown in Table 5.2.

Table 5.2: Alternative 2

Policy Objective	Specific Objective	Actions	ERDF as % of Total non-TA ERDF Available
PO1	RSO1.1 & RSO1.3	Capacity building within the Higher Education Institutes in the region including the new Technological University Accelerating the translation of cutting-edge research into commercial applications at a regional level Supporting innovation diffusion, enterprise innovation and entrepreneurship in the regions Strengthening and developing functional regional ecosystems that support innovation diffusion, enterprise innovation and entrepreneurship in the regions	56%
PO2	RSO2.1	Retrofitting and improving the energy efficiency of public sector buildings	30%
PO5	RSO5.1	Supporting an integrated strategic approach to the regeneration of our towns	14%

Alternative 3 – Reallocation of Resources

5.2.8 Alternative 3 addresses the same Specific Objectives under the same PO's as Alternative 1 and the same suite of actions. The difference is that it proposes a reallocation of resources, reducing the allocation of ERDF funding to actions supporting Sustainable and Integrated Urban Development under PO5 to 8% of the total available, the minimum level allowed under the thematic concentration requirements, and increasing the allocation to actions under PO1. The actions and relocation of funding under Alternative 3 is shown in Table 5.3.

Table 5.3: Alternative 3

Policy Objective	Specific Objective	Actions	ERDF as % of Total non-TA ERDF Available
PO1	RSO1.1 & RSO1.3	Capacity Building within the Higher Education Institutes in the region including the new Technological University Accelerating the translation of cutting-edge research into commercial applications at a regional level Supporting innovation diffusion, enterprise innovation and entrepreneurship in the regions Strengthening and developing functional regional ecosystems that support innovation diffusion, enterprise innovation and entrepreneurship in the regions	62%
PO2	RSO2.1	Improving the energy efficiency of residential homes for those at risk of energy poverty	30%
PO5	RSO5.1	Supporting an integrated strategic approach to the regeneration of our towns	8%

5.3 Assessment of Alternatives

High Level Matrix Assessment

5.3.1 A high level summary of how well each of these three alternative options perform against the SEA Objectives is provided in the matrix below in Table 5.4.

Table 5.4: Assessment of Alternatives

SEA OBJECTIVES		ALTERNATIVES					
		1		2		3	
		The Programme as Currently Proposed		Alternative Actions		Reallocation of Resources	
1	**Ecology and Nature Conservation**	+/-	This alternative is unlikely to have significant effects on ecology and nature conservation although this will largely depend on the types of projects that are funded under RSO 5.1 with regard to town centre regeneration.	+/-	This alternative is the same as Alternative 1 and is therefore unlikely to have significant effects on ecology and nature conservation although again this will largely depend on the types of projects that are funded under RSO 5.1 with regard to town centre regeneration.	+/-	Alternative three will have the least effect of all alternatives both positively or negatively as less funding is allocated to RSO 5.1 in which town centres will be regenerated.
2	**Population and Socio-economics**	++	Strong positive effects are anticipated due to the allocation of funding for the regeneration of key towns which would create more usable, safe and attractive public realms and would likely stimulate economic development through increased foot traffic and tourism. This may have indirect benefits on local economies by encouraging further investment and property development in an area. The focus on retrofitting	+	Strong positive effects are anticipated due to the allocation of funding for the regeneration of key towns which would create more usable, safe and attractive public realms and would likely stimulate economic development through increased foot traffic and tourism. This may have indirect benefits on local economies by encouraging further investment and property development in an	+	Positive effects are anticipated on this SEA Objective from the regeneration of towns. However, due to funding being redirected to PO1 rather than PO5, the anticipated positive effects are not predicted to be as strong as for Alternative 1.

SEA OBJECTIVES		ALTERNATIVES					
		1		2		3	
		The Programme as Currently Proposed		Alternative Actions		Reallocation of Resources	
			and making energy improvements to residential homes to those at risk of energy poverty will make the largest difference to population by reducing deprivation, inequality and poverty.		area. The focus on retrofitting and making energy improvements to public sector buildings would have less of an impact on the population as it would not reduce deprivation, inequality or poverty.		
3	**Health and Quality of Life**	++	Strong positive effects are anticipated as energy retrofitting will make a positive impact on people's health and quality of life by providing warmer and more energy efficient homes to those most at risk of energy poverty. The local population will benefit from town centre regeneration as it will likely improve the quality, safety and accessibility of the area.	+	Although positive effects are anticipated this alternative will have less of a positive impact overall compared to Alternative 1 and 3 due to the focus on improving the energy efficiency of public sector buildings rather than residential homes. Those at risk of energy poverty would not benefit individually.	+	Strong positive effects are anticipated for this SEA objective as warmer homes for those at risk of energy poverty will make a positive impact on people's health and quality of life. The local population will benefit from town centre regeneration although less so than in Alternative 1 due to the redirection of funding from PO5 to PO1.

SEA OBJECTIVES		ALTERNATIVES					
		1		2		3	
		The Programme as Currently Proposed		Alternative Actions		Reallocation of Resources	
4	**Soil and Land Use**	+	This alternative is not specifically focused on making improvements to soil although some benefits may occur around land use due to support for town centre regeneration of key towns.	+	This alternative is not specifically focused on improvements to soil although some benefits may occur around land use due to support for town centre regeneration of key towns.	0	This alternative is not specifically focused on improvements to soil though some benefits may occur around land use due to support for town centre regeneration of key towns. However, less funding is directed to RSO 5.1 so the benefits are thought to be smaller overall.
5	**Water**	0	It is not anticipated that Alternative 1 will have an effect on this SEA objective.	0	It is not anticipated that Alternative 2 will have an effect on this SEA objective.	0	It is not anticipated that Alternative 3 will have an effect on this SEA objective.
6	**Air Quality**	0	It is not anticipated that Alternative 1 will have an effect on this SEA objective.	0	It is not anticipated that Alternative 2 will have an effect on this SEA objective.	0	It is not anticipated that Alternative 3 will have an effect on this SEA objective.

SEA OBJECTIVES		ALTERNATIVES					
		1		2		3	
		The Programme as Currently Proposed		Alternative Actions		Reallocation of Resources	
7	**Climate Change**	+	Energy efficient renovations and retrofitting of homes will result in a higher number of homes heated using cleaner energy such as heat pumps rather than fossil fuels. Retrofitting to make homes more energy efficient will reduce energy wasted to heat poorly insulated homes. This will make a small positive contribution to this SEA objective, however, on balance the impact of the actions are unlikely to be of sufficient scale to lead to a discernible effect on climate change.	+	Energy efficient renovations and retrofitting of public sector buildings will result in a higher number of buildings being heated using cleaner energy such as heat pumps rather than fossil fuels. Retrofitting to make buildings more energy efficient will reduce energy wasted to heat poorly insulated buildings. This will make a small positive contribution to this SEA objective, however, on balance the impact of the actions are unlikely to be of sufficient scale to lead to a discernible effect on climate change.	+	Energy efficient renovations and retrofitting of homes will result in a higher number of homes will be heated using cleaner energy such as heat pumps rather than fossil fuels. Retrofitting to make homes more energy efficient will reduce energy wasted to heat poorly insulated homes. This will make a small positive contribution to this SEA objective, however, on balance the impact of the actions are unlikely to be of sufficient scale to lead to a discernible effect on climate change.
8	**Material Assets**	+/-	The effects on this SEO objective are uncertain as town centre regeneration and retrofitting homes may produce large amounts of waste. The extent to which the energy retrofits and renovations will reduce the use of solid fuel and safeguard resources is unknown at this	+/-	The effects on this SEO objective are uncertain as town centre regeneration and retrofitting homes may produce large amounts of waste. The extent to which the energy retrofits and renovations will reduce the use of solid fuel and safeguard resources is unknown at this level and	+/-	The effects on this SEO objective are uncertain as town centre regeneration and retrofitting homes may produce large amounts of waste. The extent to which the energy retrofits and renovations will reduce the use of solid fuel and safeguard resources is unknown at this

SEA OBJECTIVES		ALTERNATIVES					
		1		2		3	
		The Programme as Currently Proposed		Alternative Actions		Reallocation of Resources	
			level and therefore outcomes are uncertain.		therefore outcomes are uncertain.		level and therefore outcomes are uncertain.
9	**Historic Environment**	+/-	This SEA objective is not anticipated to be affected by Alternative 1. Changes in the townscape may affect the site and setting of some heritage assets although on balance the impact of the actions are unlikely to be of sufficient scale to lead to a discernible effect on the historic environment.	+/-	It is uncertain what impacts retrofitting and improving the energy efficiency of public sector buildings will have on the site and setting on historic buildings. There could be negative effects if this is not handled sensitively.	+/-	This SEA objective is not anticipated to be significantly affected by Alternative 3. Changes in the townscape may affect the site and setting of some heritage assets although on balance the impact of the actions are unlikely to be of sufficient scale to lead to a discernible effect on the historic environment.

SEA OBJECTIVES		ALTERNATIVES					
		1		2		3	
		The Programme as Currently Proposed		Alternative Actions		Reallocation of Resources	
10	**Landscape**	0	It is not anticipated that Alternative 1 will have an effect on this SEA objective.	+/-	Retrofitting and improving the energy efficiency of public sector buildings may make changes to the visual appearance of large buildings and therefore may have an effect on the wider landscape. The scale of impacts will depend on the types of projects funded which is unknown at this stage.	0	It is not anticipated that Alternative 3 will have an effect on this SEA objective.
11	**Natural Capital**	+/-	Facilitating the use of renewable energy in residential homes and making them more energy efficient will discourage the use of non-renewables and promote sustainable usage which will benefit natural capital. However, inappropriately sited infrastructure and developments as part of town centre regenerations could adversely affect the ability of ecosystems to provide services and potentially cause fragmentation of habitats/green space, though benefits should occur depending	+/-	Facilitating the use of renewable energy in public sector buildings and making them more energy efficient will discourage the use of non-renewables and promote sustainable usage which will benefit natural capital. However, inappropriately sited infrastructure and developments as part of town centre regenerations could adversely affect the ability of ecosystems to provide services and potentially cause fragmentation of habitats/green	+/-	Facilitating the use of renewable energy in residential homes and making them more energy efficient will discourage the use of non-renewables and promote sustainable usage which will benefit natural capital. However, inappropriately sited infrastructure and developments as part of town centre regenerations could adversely affect the ability of ecosystems to provide services and potentially cause fragmentation of habitats/green space, though benefits should occur depending

SEA OBJECTIVES		ALTERNATIVES					
		1		2		3	
		The Programme as Currently Proposed		Alternative Actions		Reallocation of Resources	
			on the types of projects that are funded and the materials used.		space, though benefits should occur depending on the types of projects that are funded and the materials used.		on the types of projects that are funded and the materials used.

Key for Likely Effects	
++	Likely strong beneficial effect
+	Likely beneficial effect
0	Neutral / no effect
-	Likely adverse effect
- -	Likely strong adverse effect
+/-	Uncertain effect

5.4 Consideration of Alternatives

Alternative 1

5.4.1 Strong beneficial effects are anticipated for both Alternative 1 in terms of population and socio-economics due to the allocation of funding for the regeneration of key towns. This would create more usable, safe and attractive public realms within key towns and in turn could stimulate economic development through increased foot traffic and tourism. This may have indirect benefits on local economies by encouraging further investment and property development in regenerated areas.

5.4.2 Strong beneficial effects are anticipated for health and quality of life in Alternative 1 as retrofitting and making energy improvements to residential homes of those at risk of energy poverty would improve health and wellbeing by enabling people to live in a more comfortable environment and reduce the health risks of living in cold and damp house which leads to number of health problems.

5.4.3 Uncertain effects are anticipated for ecology and nature conservation, water, historic environment and landscape.

5.4.4 Adverse effects are anticipated for material assets and natural capital as projects funding town centre regeneration and the retrofitting of homes are likely to have a high consumption of raw materials and produce large amounts of waste.

Alternative 2

5.4.5 Alternative 1 and 2 have the same percentage of funding allocated to each RSO however Alternative 2 differs through *RSO2.1: Promoting energy efficiency and reducing greenhouse gas emissions* as the recipients of funding changes from residential homes to public sector buildings.

5.4.6 Strong beneficial effects are anticipated for Alternative 2 in terms of population and socio-economics due to the allocation of funding for the regeneration of key towns. In the same way as Alternative 1, this would create more usable, safe and attractive public realms within key towns and in turn could stimulate economic development through increased foot traffic and tourism. This may have indirect benefits on local economies by encouraging further investment and property development in regenerated areas.

5.4.7 Alternative 2 would see a change in the recipients of funding under RSO2.1 from residential homes to public sector buildings, therefore this would change the scale of projects funded under the Regional Programme and therefore has an increased potential for negative impacts on material assets, historic environment, landscape and natural capital. The focus on retrofitting and making energy improvements to public sector buildings will have fewer beneficial effects than Alternative 1 in terms of health and quality as it will not target those at risk of energy poverty within the programme area.

Alternative 3

5.4.8 Alternative 3 preforms similarly to Alternative 1 however it has different funding allocations.

5.4.9 Alternative 3 would see less funding given to *RSO 5.1: Supporting an integrated strategic approach to the regeneration of our town than the other alternatives*. The funding is redirected from PO5 RSO 5.1 is added to PO1 RSO 1.1 and 1.3 which focuses funding on developing and enhancing research and innovation capacities and the uptake of advanced technologies and enhancing sustainable growth and competitiveness of SMEs and job creation in SMEs.

5.4.10 Beneficial effects are anticipated for health and quality of life from Alternative 3 as, similarly to Alternative 1, retrofitting and energy improvements to residential homes of those at risk of energy poverty will make beneficial contribution to the health and wellbeing of residents.

5.4.11 However, this alternative will have fewer beneficial effects to the quality of life of residents as less funding given to town centre regeneration, placemaking and tackling dereliction. The local population will still benefit from town centre regeneration although less so than in Alternative 1 and 2 due to the redirection of funding from PO5 to PO1. More funding for PO1 would have positive impacts for research, universities, job creation and SMEs which would have minor beneficial effects on population and socio-economics.

5.4.12 Uncertain effects are anticipated for ecology and nature conservation, water, historic environment and landscape.

5.4.13 Adverse effects are anticipated for material assets and natural capital as projects funding town centre regeneration and the retrofitting of homes are likely to have a high consumption of raw materials and produce larger amounts of waste.

5.5 Reasons for Selection of Chosen Strategic Alternative

5.5.1 Alternative 1 represents the selected chosen strategic alternative.

5.5.2 This is based on the Needs Analysis and community engagement activities which suggests it provides the optimum blend of priorities to maximise performance in terms of supporting the region's population and growing the region sustainably and economically alongside other current funding streams.

5.5.3 Alternative 1 provides funding for the RSO 5.1 'Supporting an integrated strategic approach to the regeneration of our towns' which will have a greater direct impact on the socio-economics, health and quality of life of communities encompassing people from all backgrounds compared to Alternative 3 which allocates a larger percentage of funding to RSO 1.1 'Capacity building within both Higher Education Institutes'. Alternative 1 will make a significant difference to the health and quality of life of residents by reducing energy poverty.

5.5.4 For these reasons, it is concluded that Alternative 1 should be taken forward by the Regional Assembly and presented for public consultation.

6 ASSESSMENT OF IMPACTS

6.1 High Level Matrix Assessment

6.1.1 A high level matrix assessment has been carried out on the chosen alternative; this can be seen in Table 6.1 below. The matrix is structured around qualitatively assessing each of the Specific Objectives and their associated actions, against the identified SEA Objectives. The Policy Objectives, Specific Objectives and actions are as supplied by SRA but for the purposes of brevity, they have in places been merged or summarised.

Table 6.1: High Level Matrix Assessment of the Regional Programme

SRA High Level Matrix		SEA OBJECTIVES										
		1	2	2	4	5	6	7	8	9	10	11
Objectives and Actions		Ecology and Nature Conservation	Health and Quality of Life	Population and Socio-economics	Soil and Land Use	Water	Air Quality	Climate Change	Material Assets	Historic Environment	Landscape	Natural Capital
Priority Objective 1: Developing Smarter More Competitive Regions												
Specific Objective: RSO 1.1: Developing and enhancing research and innovation capacities and the uptake of advanced technologies (ERDF)												
Capacity building within both Higher Education Institutes (HEI's) and our new Technological University (TU).												
RSO 1.1.1	Establish, strengthen and systemise the technological universities' research and innovation offices which support their academic staff and researchers and wider enterprise and community stakeholders within their regions. This will include developing researcher human capital in the technological universities, including staff development, recruitment, postgraduate training and supervision, networking, and more structured collaborative knowledge-transfer and mobility schemes.	0	+	++	0	0	0	0	0	0	0	0
RSO 1.1.2	Provide industry gateways with dedicated staff who work with industry to articulate company problems in a manner that can be addressed by the established expert base in the TU. Gateway staff will manage the interaction between enterprises and the Technological University, help	0	0	++	0	0	0	0	0	0	0	0

SRA High Level Matrix		SEA OBJECTIVES										
		1	2	2	4	5	6	7	8	9	10	11
Objectives and Actions		Ecology and Nature Conservation	Health and Quality of Life	Population and Socio-economics	Soil and Land Use	Water	Air Quality	Climate Change	Material Assets	Historic Environment	Landscape	Natural Capital
	enterprises source funding where necessary, and ensure projects are delivered successfully and in an industry friendly manner.											
Capacity building within the regions' public research institutions												
RSO 1.1.3	Retain Technology Transfer specialists to help companies and investors to access new knowledge and expertise, to drive innovation through collaboration, and to identify and license new technologies and IP. These specialists will continue to develop the Technology Transfer System in public research institutions and will provide new resources to place a focus on developing spin out company opportunities.	0	+	++	0	0	0	0	0	0	0	0
Accelerating the translation of cutting-edge research into commercial applications at a regional level												
RSO 1.1.4	Establish a new "Smart Hub" model for regional innovation and entrepreneurial training. The model will integrate critical elements of a research and innovation (R&I) ecosystem with entrepreneurial approaches, thus accelerating time to market from research concept to spin-outs, new product introduction, licences and innovations. The new regional Smart Hubs for Entrepreneurial Research and Innovation will be	0	0	++	0	0	0	0	0	0	0	0

SRA High Level Matrix		SEA OBJECTIVES										
		1	2	2	4	5	6	7	8	9	10	11
Objectives and Actions		Ecology and Nature Conservation	Health and Quality of Life	Population and Socio-economics	Soil and Land Use	Water	Air Quality	Climate Change	Material Assets	Historic Environment	Landscape	Natural Capital
	established in key thematic areas aligned with the Ireland's Smart Specialisation Strategy and regional strategic priorities.											
Supporting innovation diffusion, enterprise innovation and entrepreneurship in the regions												
RSO 1.1.5	Develop new immersive-based, needs-led innovation training programmes, closely aligned to S3 in the regions and capable of attracting high calibre individuals and inter-disciplinary teams who, through their immersion and observation of real needs in their immersive environment and the use of a design methodology, will be supported to generate product and process ideas, new IP and in some cases, the creation of high-potential-start-ups (HPSUs) from research. These programmes will build on existing international and national best practice connecting on multiple levels with the industry sector clusters in the regions.	0	0	++	0	0	0	0	0	0	0	0

SRA High Level Matrix		SEA OBJECTIVES										
		1	2	2	4	5	6	7	8	9	10	11
Objectives and Actions		Ecology and Nature Conservation	Health and Quality of Life	Population and Socio-economics	Soil and Land Use	Water	Air Quality	Climate Change	Material Assets	Historic Environment	Landscape	Natural Capital
RSO 1.3: Enhancing sustainable growth and competitiveness of SMEs and job creation in SMEs, including by productive investments (ERDF)												
Strengthening and developing functional regional ecosystems that support innovation diffusion, enterprise innovation and entrepreneurship in the regions.												
RSO 1.3.1	Provide appropriate infrastructure and key staff resources to deliver innovative solutions including support programmes to support entrepreneurship, start-ups and scaling companies. This will include: • delivery of small to medium scale regional projects (with minimum or no building requirements) or expansion of existing regional ecosystem projects • scoping and preparing new large-scale regional projects, e.g., design and planning, project development, recruitment of key managers • delivery of large-scale regional capital investment projects that provide key strategic infrastructural solutions to support the regional ecosystem	0	+	++	0	0	0	0	0	0	0	0
Priority Objective 2: Developing Low-Carbon Energy Efficient Regions												
Specific Objective: RSO2.1: Promoting energy efficiency and reducing greenhouse gas emissions												
Improving the energy efficiency of residential homes and reducing the risk and prevalence of energy poverty in our regions												
RSO 2.1.1	Support the delivery of energy efficiency renovations free of charge to owner-occupied lower-income households who meet the defined eligibility criteria and who are in, or are vulnerable to, energy poverty. This action will use learnings from similar actions in the 2014-2020 programming period and will:											

SRA High Level Matrix		SEA OBJECTIVES										
		1	2	2	4	5	6	7	8	9	10	11
Objectives and Actions		Ecology and Nature Conservation	Health and Quality of Life	Population and Socio-economics	Soil and Land Use	Water	Air Quality	Climate Change	Material Assets	Historic Environment	Landscape	Natural Capital
a	Retrofit homes with the aim to achieve, on average, at least a medium-depth level renovation.	0	++	+	0	0	0	+	+/-	0	0	0
b	Pilot the installation of heat pumps in existing premises, to replace older less efficient heating systems.	0	++	+	0	0	0	+	+/-	0	0	0
c	Gather evidence from the pilot to inform the appropriate process and approach to increasing the number of B2 upgrades and heat pump installations going forward.	0	+	+	0	0	0	0	0	0	0	0
d	Provide an evidence base to improve the targeting of energy efficiency schemes.	0	+	+	0	0	0	0	0	0	0	0
e	Examine the impact of retrofitting on alleviating energy poverty.	0	+	+	0	0	0	0	0	0	0	0
Priority Objective 5: Sustainable and Integrated Urban Development												
Specific Objective: RSO 5.1: Fostering the integrated and inclusive social, economic and environmental development, culture, natural heritage, sustainable tourism, and security in urban areas (ERDF).												
Supporting locally lead and locally selected projects that take an integrated strategic approach to the regeneration of our towns, using a Town Centre First Health Check framework to gather data, develop action plans and lead actions on regeneration.												
RSO 5.1.1	Prepare integrated urban regeneration action plans / masterplans (either using procured multi-disciplinary service or short term contract within the Local Authority for required skills) which identify projects and initiatives tackling town centre regeneration,	+/-	+	+	+/-	+/-	0	+/-	+/-	+/-	+/-	+/-

SRA High Level Matrix		SEA OBJECTIVES										
		1	2	2	4	5	6	7	8	9	10	11
Objectives and Actions		Ecology and Nature Conservation	Health and Quality of Life	Population and Socio-economics	Soil and Land Use	Water	Air Quality	Climate Change	Material Assets	Historic Environment	Landscape	Natural Capital
	placemaking, vacancy and dereliction.											
RSO 5.1.2	Deliver pilot and pathfinder projects for selected towns (priority for Key Towns or other settlements as justified by the Local Authority under selection criteria) tackling town centre regeneration, placemaking, vacancy and dereliction. This will involve capital investment and may include public realm improvement projects.	+/-	+	+	+/-	+/-	0	+/-	+/-	+/-	+/-	+/-

Key for Likely Effects	
++	Likely strong beneficial effect
+	Likely beneficial effect
0	Neutral / no effect
-	Likely adverse effect
- -	Likely strong adverse effect
+/-	Uncertain effect

6.2 Assessment by Programme Objective and RSO

PO1 SEM1: Smarter and More Competitive Regions

Specific Objective RSO1.1: Developing and enhancing research and innovation capacities and the uptake of advanced technologies

6.2.1 The majority of the actions referenced under RSO1.1 relate primarily to research, innovation and support for start-ups and scaling companies. Staff development, recruitment, postgraduate training and supervision, networking, and more structured collaborative knowledge-transfer and mobility schemes. This is likely to have a strong beneficial effect on population and socio–economics and some beneficial effects on quality of life. It is unlikely to have significant beneficial or adverse effects on the other SEA objectives.

Specific Objective RSO1.3: Enhancing sustainable growth and competitiveness of SMEs and job creation in SMEs, including by productive investments

6.2.2 In keeping with the overall Regional Programme aims, this RSO is expected to have a strong beneficial effect on population and socio-economics and some beneficial effects on health and quality of life. RSO1.3 addresses the recommendations of the EC Country Specific Reports and the Needs Analysis through actions which will enhance sustainable growth and competitiveness of SMEs and job creation in SMEs.

6.2.3 Funding will be allocated to existing enterprises, businesses, universities and research facilities, and as such, there would be no, or minimal small-scale new buildings/ infrastructure associated with the funded projects. As the RSO is expected to result in minimal or no new construction works, neutral effects are expected for the environmental focused SEA objectives.

6.2.4 No RSO's under PO1 SEM1 were identified as requiring detailed assessment.

PO2 SEM2: Low-Carbon Energy Efficient Regions

Specific Objective RSO2.1 Promoting energy efficiency and reducing greenhouse gas emissions

6.2.5 Supporting the delivery of energy efficiency renovations free of charge to owner-occupied lower-income households who are vulnerable to energy poverty will have strong beneficial effects on health and quality of life and some beneficial effects on population and socio-economics.

6.2.6 Beneficial effects are anticipated on the SEA objective climate change as RSO2 will result in a higher number of homes moving away from fossil fuels. Renovations will also reduce energy wastage through heating uninsulated homes.

6.2.7 There is a high potential for waste to be generated through the retrofitting of homes and replacement of old energy and heating systems. At this stage, details of how construction materials will be procured and how the waste products from renovation activities will be

handled is unknown, therefore the effects on the material assets SEA objective are assessed as uncertain.

6.2.8 PO2 SEM2 RSO2.1 was therefore taken forward for detailed assessment.

PO5 SEM3: Sustainable and Integrated Urban Development

Specific Objective RSO 5.1. Fostering the integrated and inclusive social, economic and environmental development, culture, natural heritage, sustainable tourism, and security in urban areas

6.2.9 This RSO will support the preparation of integrated urban regeneration action plans / masterplans identifying sustainable and integrated urban development projects and implementation of the Town Centre First policy. This will have beneficial effects on the population focused SEA objectives, health and quality of life, population and socio-economics

6.2.10 This RSO has a number of uncertainties as effects will largely depend on the type and scale of projects, materials used, strategic planning and timescales, and the social and environmental aspects that are set to be addressed. Therefore the potential for adverse effects cannot be ruled out.

6.2.11 PO5 SEM3 RSO 5.1 was taken forward for detailed assessment because of uncertain effects on the ecology and nature conservation, soil and land use, water, climate change, material assets, historic environment, landscape and natural capital SEA objectives.

6.3 Uncertainties

6.3.1 None of the indicative outputs proposed through the Regional Programme are location-specific; they apply to the whole of the programme area boundary within Ireland. It is recognised that with a programme of this nature, the precise environmental impacts will depend on the specific projects funded through the Regional Programme. These will emerge over the duration of the Regional Programme, and hence at this stage full details, particularly regarding project locations, are not available. For this reason, some impacts are recorded as uncertain in the matrices.

6.3.2 Specific projects would be subject to planning and environmental controls that exist in the respective jurisdictions in which they are proposed and hence it is unlikely that projects fundamentally harmful to the environment would be allowed to proceed. Nevertheless the detailed assessment of such proposals is subject to uncertainty and noted as such in the high level assessment.

6.3.3 Some actions whilst apparently of neutral or non-significant effect based on current knowledge, may have indirect and unforeseen environmental effects (either beneficial or adverse) during implementation. At this high level, such matters are uncertain and difficult to foresee at this stage of assessment. Hence, there will be a requirement for the monitoring of the programme to address the implementation of the programme in the round and not just those areas identified as being subject to detailed assessment.

6.4 Detailed Matrix Assessment

6.4.1 Where RSO's were predicted to have uncertain or adverse effects at the high level assessment stage, the RSO has been analysed further in the detailed matrix assessment to ascertain the effect and the significance of potential adverse effects and how these can be avoided or minimised. In the case of the Regional Programme this relates to *PO2 RSO2.1: Promoting energy efficiency and reducing greenhouse gas emissions* and *PO5 RSO5.1: Fostering the integrated and inclusive social, economic and environmental development, culture, natural heritage, sustainable tourism, and security in urban areas.*

6.4.2 The detailed matrix presented below in table 6.3 and 6.4 shows the likely environmental effects of these PO's and associated RSO's.

Table 6.2: Detailed Matrix Key

Key for Significance of Effect	
	Major or Major/Moderate beneficial effect
	Moderate or Moderate/Minor beneficial effect
	Minor or Minor/Negligible beneficial effect
	Negligible beneficial/adverse effect or neutral effect
	Minor or Minor/Negligible adverse effect
	Moderate or Moderate/Minor adverse effect
	Major or Major/Moderate adverse effect

Table 6.3: Detailed Matrix Assessment RSO2.1

Specific Objective: RSO2.1: Promoting energy efficiency and reducing greenhouse gas emissions Improving the energy efficiency of residential homes and reducing the risk and prevalence of energy poverty in our regions											
SEA Objective		**Description of Effect**	**Duration**	**Frequency**	**Permanence**	**Geographic Extent**	**Magnitude**	**Value / Vulnerability**	**Significance**	**Certainty**	**Mitigation Required**
1	Ecology and Nature Conservation	No effects are anticipated on this SEA Objective.	N/A	N/A	N/A	N/A	N/A	N/A	Neutral	N/A	N/A
2	Health and Quality of Life	This Specific Objective would have a direct benefitial effect on health and quality of life of residents in the region by providing warmer and more energy efficient homes to those most at risk of energy poverty.	Long term	Continuous	Permanent	Local to regional	Medium	High	Major/ Moderate	Medium	No
3	Population and Socio-economics	This Specific Objective would have a direct positive effect on population and socio-economics as more energy efficient homes will take less energy to heat and therefore save residents money.	Long term	Continuous	Permanent	Local to regional	Low	Medium	Moderate/ Minor	Medium	No
4	Soil and Land Use	No effects are anticipated on this SEA Objective.	N/A	N/A	N/A	N/A	N/A	N/A	Neutral	N/A	N/A
5	Water	No effects are anticipated on this SEA Objective.	N/A	N/A	N/A	N/A	N/A	N/A	Neutral	N/A	N/A
6	Air Quality	No effects are anticipated on this SEA Objective.	N/A	N/A	N/A	N/A	N/A	N/A	Neutral	N/A	N/A
7	Climate Change	Energy efficient renovations and retrofitting of homes will result in a higher number of homes will be heated using cleaner energy such as heat pumps rather than fossil fuels. Renovations will reduce the amount of heat lost from uninsulated homes and reduce energy wastage.	Long term	Continuous	Permanent	Cross-border	Low	High	Moderate/ Minor	Medium	No

Specific Objective: RSO2.1: Promoting energy efficiency and reducing greenhouse gas emissions											
Improving the energy efficiency of residential homes and reducing the risk and prevalence of energy poverty in our regions											
SEA Objective		**Description of Effect**	**Duration**	**Frequency**	**Permanence**	**Geographic Extent**	**Magnitude**	**Value / Vulnerability**	**Significance**	**Certainty**	**Mitigation Required**
8	Material Assets	Renovations and retrofitting homes may produce large amounts of waste. It is uncertain at this stage whether the waste and by-products produced will be recycled and reused and if materials will be precured from sustainable sources. The extent to which these renovation reduce the use of solid fuel and safeguard resources is unknown at this level and therefore outcomes are uncertain.	Medium Term	Regular	Permanent	Local to regional	Negligible	Medium	Minor	Low	Yes
9	Historic Environment	No effects are anticipated on this SEA Objective.	N/A	N/A	N/A	N/A	N/A	N/A	Neutral	N/A	N/A
10	Landscape	No effects are anticipated on this SEA Objective.	N/A	N/A	N/A	N/A	N/A	N/A	Neutral	N/A	N/A
11	Natural Capital	No effects are anticipated on this SEA Objective.	N/A	N/A	N/A	N/A	N/A	N/A	Neutral	N/A	N/A

Table 6.4: Detailed Matrix Assessment RSO5.1

Specific Objective: RSO 5.1: Fostering the integrated and inclusive social, economic and environmental development, culture, natural heritage, sustainable tourism, and security in urban areas. Supporting locally lead and locally selected projects that take an integrated strategic approach to the regeneration of our towns, using a Town Centre First Health Check framework to gather data, develop action plans and lead actions on regeneration.											
SEA Objective		**Description of Effect**	**Duration**	**Frequency**	**Permanence**	**Geographic Extent**	**Magnitude**	**Value / Vulnerability**	**Significance**	**Certainty**	**Mitigation Required**
1	Ecology and Nature Conservation	Actions under this specific objective aim to foster integrated and inclusive social, economic and environmental development, culture, natural heritage, sustainable tourism which would have a positive effect on the objective. Where town centre regeneration is in close proximity to designated sites or if funds are directed towards brownfield, or derelict sites this may have a detrimental effect on ecology due to their importance as habitats. There is potential for localised disturbance to protected sites, flora, fauna and habitats.	Long term	Continuous	Permanent	Local to regional	Low	Low to Medium	Minor	Medium	Yes
2	Health and Quality of Life	Town centre regeneration and public realm improvements would to make a positive contribution to the wellbeing and mental health of residents through having a cleaner, safer and more aesthetically pleasing urban area.	Long term	Continuous	Permanent	Local to regional	Medium	High	Moderate	Medium	No
3	Population and Socio-economics	This Specific Objective would have a direct beneficial impact on this SEA objective by providing increased access and creating a	Long term	Continuous	Permanent	Local to regional	Medium	Medium	Moderate	Medium	No

Specific Objective: RSO 5.1: Fostering the integrated and inclusive social, economic and environmental development, culture, natural heritage, sustainable tourism, and security in urban areas. Supporting locally lead and locally selected projects that take an integrated strategic approach to the regeneration of our towns, using a Town Centre First Health Check framework to gather data, develop action plans and lead actions on regeneration.												
SEA Objective		**Description of Effect**	**Duration**	**Frequency**	**Permanence**	**Geographic Extent**	**Magnitude**	**Value / Vulnerability**	**Significance**	**Certainty**	**Mitigation Required**
		more attractive public realm. This will also benefit local economies by encouraging further investment and property development in an area which would stimulate economic development through increased foot traffic and tourism.									
4	Soil and Land Use	Town centre regeneration may result in compaction of soils through increased hard standing, however this would likely only affect a small and localised area. This Specific Objective will encourage the use of previously developed land and vacant or derelict premises which will impact positively on land use.	Long term	Continuous	Permanent	Local to regional	Low	Negligible to high	Minor/ Negligible	Low	No
5	Water	The final actions and projects of TCP plans and town centre regeneration will be identified at a later stage and outcomes will dependent on the priorities of that town and construction methods used. Increased hard standing and impermeable surfaces may result in higher levels of surface water run off, pollution of waterways and flooding.	Long term	Continuous	Permanent	Cross Border	Negligible	Low to high	Minor	Low	Yes
6	Air Quality	The final actions and projects of TCP plans and town centre regeneration will be identified at a later stage and outcomes will dependent on the priorities of that town and construction methods used. On balance the impact of the RSO are unlikely to be of	N/A	N/A	N/A	N/A	N/A	N/A	Neutral	N/A	N/A

Specific Objective: RSO 5.1: Fostering the integrated and inclusive social, economic and environmental development, culture, natural heritage, sustainable tourism, and security in urban areas. Supporting locally lead and locally selected projects that take an integrated strategic approach to the regeneration of our towns, using a Town Centre First Health Check framework to gather data, develop action plans and lead actions on regeneration.												
SEA Objective		**Description of Effect**	**Duration**	**Frequency**	**Permanence**	**Geographic Extent**	**Magnitude**	**Value / Vulnerability**	**Significance**	**Certainty**	**Mitigation Required**
		sufficient scale to lead to a discernible effect on air quality.									
7	Climate Change	The final actions and projects of TCP plans and town centre regeneration will be identified at a later stage and outcomes will dependent on the priorities of that town and construction methods used. On balance the impact of the Specific Objectives are unlikely to be of sufficient scale to lead to a discernible effect on climate.	N/A	N/A	N/A	N/A	N/A	N/A	Neutral	N/A	N/A
8	Material Assets	Projects funding town centre regeneration are likely to have a high consumption of raw materials and produce large amounts of waste. It is uncertain at this stage whether the waste and by-products produced from the regeneration of town centre will be recycled and reused and if materials will be precured from sustainable sources.	Long term	Regular	Permanent	Local to regional	Negligible	Medium	Minor	Low	Yes
9	Historic Environment	Actions under this specific objective aim to foster integrated and inclusive social, economic and environmental development, culture, natural heritage, sustainable tourism which would have a positive effect on the objective. Where construction and regeneration is handled sensitively the site and setting of assets will be enhanced.	Long term	Continuous	Permanent	Local to regional	Low	Low to high	Minor	Medium	No

Specific Objective: RSO 5.1: Fostering the integrated and inclusive social, economic and environmental development, culture, natural heritage, sustainable tourism, and security in urban areas. Supporting locally lead and locally selected projects that take an integrated strategic approach to the regeneration of our towns, using a Town Centre First Health Check framework to gather data, develop action plans and lead actions on regeneration.												
SEA Objective		**Description of Effect**	**Duration**	**Frequency**	**Permanence**	**Geographic Extent**	**Magnitude**	**Value / Vulnerability**	**Significance**	**Certainty**	**Mitigation Required**
10	Landscape	This Specific Objective is likely to have a positive effects on this SEA Objective as it would improve the public realm through planned placemaking and regeneration of derelict sites. Negative effects would be minimalised through local planning processes to ensure adverse effects do not occur on the wider landscape.	Long term	Continuous	Permanent	Local to regional	Medium	Low to high	Moderate/ Minor	Medium	No
11	Natural Capital	Actions under this specific objective aim to foster integrated and inclusive social, economic and environmental development, culture, natural heritage, sustainable tourism which would have a positive effect on the objective. However, the programme does not aim to enhance the understanding and connection to the natural world. The programme does not directly encourage multifunctionality of greenspace to enhance human health and quality of life, water, soil and air quality, climate regulation and biodiversity. It is anticipated that the programme will have minor adverse effects on ecology and nature conservation, water and material assets.	Long term	Continuous	Permanent	Local to regional	Negligible	Low to high	Minor/ Negligible	Medium	Yes

PO2 SEM2: RSO2.1: Promoting energy efficiency and reducing greenhouse gas emissions

6.4.3 The focus of RSO2.1 is to support the delivery of energy efficiency renovations free of charge to owner-occupied lower-income households who meet the defined eligibility criteria and who are in, or are vulnerable to, energy poverty.

6.4.4 Due to the nature of this RSO moderate/minor beneficial effects are anticipated for population and socio-economics due to savings that will be made through more efficient homes running on cleaner more sustainable energy. Major/moderate beneficial effects are also anticipated for health and quality of life as warmer energy efficient homes would provide a better standard of living and reduce the risk of health impacts of a poor living environment for those at risk of energy poverty. Moderate/minor beneficial effects on climate change are anticipated due to the reduction of carbon heavy energy sources and more insulated energy efficient homes.

6.4.5 This RSO was taken forward for detailed assessment because of the uncertainties over effects on the SEA Objective for material assets. Renovations and retrofitting homes is likely to produce large amounts of waste through the replacement of old heating systems and funding of medium – depth level renovations. It is uncertain at this stage whether the waste and by-products produced will be recycled and reused and if materials will be precured from sustainable sources. The extent to which these renovations reduce the use of solid fuel and safeguard natural resources is unknown at this level. Minor adverse effects are therefore anticipated on material assets.

6.4.6 Neutral effects are predicted on all other SEA objectives.

PO5 SME3: RSO 5.1: Fostering the integrated and inclusive social, economic and environmental development, culture, natural heritage, sustainable tourism, and security in urban areas.

6.4.7 The main focus of funding under RSO5.1 will be town centre regeneration, placemaking, and tackling vacancy and dereliction in urban locations and the development of integrated urban regeneration action plans / masterplans. New development under this RSO would be mostly small-scale and concentrated within existing urban locations including public realm projects. Supported actions will be targeted towards key towns and regional growth centres in the two NUTS2 regions in the programme area.

6.4.8 Actions under this Specific Objective aim to foster integrated and inclusive social, economic and environmental development, culture, natural heritage, sustainable tourism which would have a beneficial effect on a number of SEA objectives, particularly the population focused SEA objectives. Moderate beneficial effects are anticipated on health and quality of life as town centre regeneration and public realm improvements would make a positive contribution to the wellbeing and mental health of residents through having a cleaner, safer and more aesthetically pleasing urban area.

6.4.9 A more attractive and usable public realm will also benefit the local economies of these towns by encouraging further investment and property development in an area which would

stimulate economic development through increased foot traffic and tourism. Moderate beneficial effects are therefore also anticipated for population and socio-economics.

6.4.10 The site and setting of heritage assets will be enhanced through placemaking and the regeneration of derelict buildings. Minor beneficial effects are predicted for historic environment.

6.4.11 Although it is unlikely that this type of development/regeneration would lead to direct significant adverse impacts, as the details of the types and locations of projects are not currently known, the potential for adverse effects cannot be fully ruled out on ecology and nature conservation, water, material assets and by extension natural capital.

6.4.12 Works in close proximity to designated sites or funds directed towards brownfield, or derelict sites may have a detrimental effect on ecology and biodiversity due to their importance as habitats in and around the urban area. There is potential for localised disturbance of protected sites, flora, fauna and habitats through the construction and implementation phase if towns are not regenerated in a strategic and sensitive manner. Minor adverse effects are therefore anticipated from this RSO on ecology and nature conservation.

6.4.13 Town centre regeneration may result in compaction of soils through increased hardstanding depending on the existing land use, however this would likely only affect a small and localised area. This Specific Objective will encourage the use of previously developed land and vacant or derelict premises which will impact beneficially on land use. Minor/negligible beneficial effects are therefore anticipated on soil and land use.

6.4.14 Increased hardstanding and impermeable surfaces may result in higher levels of surface water run-off, pollution of waterways and flooding. Alternatively, green and blue infrastructure projects funded under placemaking, and public realm improvements could protect and enhance soil structure and reduce pollution pathways through slowing and filtering the flow of water. As the details of projects are unknown therefore the nature of effects could be either beneficial or adverse, taking a conservative worst case scenario approach a minor adverse effect is predicted on water.

6.4.15 It is uncertain at this stage whether the waste and by-products produced from the regeneration of town centre will be recycled and reused and if materials will be procured from sustainable sources. Minor adverse effects are therefore anticipated on material assets.

6.4.16 Air quality and climate change are not anticipated to be affected by this RSO and therefore effects are assessed to be neutral.

6.5 Cumulative Effects Assessment

Cumulative Effects within the Programme

Ecology and Nature Conservation

6.5.1 The detailed assessment identified that RSO 5.1 could result in some localised effects on ecology and nature conservation which are considered to be minor adverse. Projects in close proximity to designated or sensitive sites may result in negative effects through

disruption during construction phase and in the long-term could contribute to fragmentation where measures are not put in place to address this.

6.5.2 The effects of RSO 2.1 on ecology and nature conservation would be neutral. The SEA assessment found that overall the effect of the Regional Programme on ecology and nature conservation would be minor adverse.

6.5.3 Alongside this environmental report, an Appropriate Assessment (AA) Screening was conducted in accordance with the Habitats Directive. RSO1.3 and RSO5.1 were scoped into Appropriate Assessment and a Natura Impact Statement (NIS) Report has been prepared.

6.5.4 Overall, none of the Policy and Specific Objectives in the Regional Programme are considered to be actively directing new development/infrastructure in such a location or manner that potential impacts arising from projects receiving funding through RSO1.3 and RSO5.1 could not be avoided or mitigated.

6.5.5 The Appropriate Assessment therefore concludes that (assuming the avoidance/ mitigation measures set out within this NIS are implemented), there would be no adverse impacts on the integrity of any European sites a result of implementation of the Regional Programme.

Health and Quality of Life

6.5.6 The effects of the Regional Programme on health and quality of life would be beneficial as the majority of the RSOs are likely to provide some benefit to the health and wellbeing of residents of the programme area, either directly or indirectly. RSO2.1, in particular, would result in major/moderate beneficial effects through the proposed funding for energy retrofits to those at risk of energy poverty, by providing warmer and more energy efficient homes to those most in need. RSO5.1 would have moderate beneficial effects on this SEA Objective.

6.5.7 The combined POs of the Regional Programme are therefore likely to have beneficial effects on health and quality of life.

Population: Socio-economic

6.5.8 The effects of the Regional Programme on socio-economic factors would also be strongly beneficial. RSO2.1 will result in moderate/ minor beneficial effects and RSO 5.1 would have moderate beneficial effects by supporting SMEs, job creation, funding innovation and research, and stimulating economic development through key town regeneration.

6.5.9 The combined effects of the Regional Programme are therefore assessed to be moderate beneficial within the programme area.

Soil and Land Use

6.5.10 The detailed assessment identified that all RSOs are predicted to have either neutral or minor/negligible beneficial effects on soil and land use. Beneficial effects are predicted on land use particularly through RSO5.1 as this will tackle town centre regeneration,

placemaking, vacancy and dereliction which promotes the use of previously developed land.

6.5.11 Overall, the effects of the Regional Programme on soil and land use would be minor/negligible beneficial.

Water

6.5.12 RSO2.1 has been assessed to have a neutral effect on water. Actions under RSO5.1 would have minor/negligible adverse effects as increased hard standing and impermeable surfaces may result in higher levels of surface water run off, pollution of waterways and flooding.

6.5.13 As the details of projects are unknown therefore the nature of effects could be either beneficial or adverse, taking a conservative worst case scenario approach a minor/negligible adverse effects are predicted on water.

Air Quality

6.5.14 On balance the impact of the RSOs are unlikely to be of sufficient scale to lead to a discernible effect on air quality. The detailed assessment identified that the effects of the Regional Programme would be neutral.

6.5.15 The effects of the Regional Programme on air quality would therefore be neutral.

Climate Change

6.5.16 The detailed assessment identified that energy efficient renovations and retrofitting of homes will have a moderate/minor beneficial effect on climate change as a result of a higher number of homes heated using cleaner energy such as heat pumps rather than fossil fuels. Renovations will also reduce the amount of heat lost from uninsulated homes and reduce energy wastage. The detailed assessment found that RSO5.1 will have a neutral effect on climate change.

6.5.17 The overall effects of the Regional Programme on climate change would be moderate/minor beneficial.

Material Assets

6.5.18 The detailed assessment identified that RSO2.1 and RSO5.1 could result in minor adverse effects on material assets by creating large amounts of waste from renovations, retrofits and town centre regeneration. The extent to which these renovations reduce the use of solid fuel and safeguard resources is unknown at this level. The remaining RSOs are all predicted to have a neutral effect on material assets.

6.5.19 The effects of the Regional Programme would be minor adverse on material assets.

Historic Environment

6.5.20 The detailed assessment identified that actions under RSO5.1 would have a minor beneficial effect on the objective as regeneration, placemaking and tackling dereliction

would enhance the site and setting of urban based cultural and historic assets. The remaining RSOs are all predicted to be neutral.

6.5.21 The effects of the Regional Programme on the historic environment would be minor beneficial.

Landscape

6.5.22 The detailed assessment identified that RSO5.1 would result in moderate/minor beneficial effects on landscape as it would improve the public realm through planned placemaking and regeneration of derelict sites. It is not anticipated that energy retrofits would have an effect on the wider landscape and all other remaining RSOs are predicted to be neutral.

6.5.23 The effects of the Regional Programme on landscape would be moderate/minor beneficial.

Natural Capital

6.5.24 The detailed assessment considered RSO2.1 would have neutral effects on natural capital. RSO5.1 would result in minor/negligible adverse effects on natural capital because of minor adverse effects on ecology and nature conservation, material assets and water. The remaining RSOs are all predicted to have no effect.

6.5.25 The Regional Programme as a whole does not aim to enhance the understanding of and connection to the natural world. The actions do not directly encourage multifunctionality of greenspace to enhance human health and quality of life, water, soil and air quality, climate regulation and biodiversity.

6.5.26 The effects of the Regional Programme on natural capital would therefore be minor/negligible adverse.

Cumulative Effects with Other Plans and Programmes

6.5.27 As noted in previous sections, and in Appendix B, there are numerous interactions between the Regional Programme and other plans and programmes.

6.5.28 It is not possible at this high level to identify an extensive list of all plans and projects which may lead to in-combination effects together with the Regional Programme; as specific projects come forward for funding, the project-level environmental assessment will have a better understanding of the likely impacts, alone and in combination.

6.5.29 The Scoping exercise found that, in general the Regional Programme is likely to be well-aligned with other Plans and Programmes assessed. The review of alignment with environmental protection objectives of these other Plans and Programmes shows a high level of alignment and positive environmental synergy.

6.5.30 Whilst significant adverse effects primarily associated with those other programmes cannot be discounted, the Regional Programme as demonstrated in this report is considered to

support the identified SEA objectives and therefore it is not anticipated to lead to significant adverse effects either singularly or in combination with other plans and programmes.

6.6 Transboundary Effects

6.6.1 The Regional Programme covers the SRA boundary within Ireland and therefore projects that fall outside of this boundary will not be funded under this Programme. Although this is the case, the effects of the Regional Programme are not limited to its administrative boundary.

6.6.2 The minor adverse effects predicted on ecology and nature conservation, water, material assets and natural capital were due to potential small scale localised impacts in urban areas, which would be unlikely to extend outside of their immediate surroundings. In consultation Historic Environment Division (HED) considered the Regional Programme to have limited scope for transboundary cultural heritage impacts which aligns with the findings of the Environmental Report.

6.6.3 It is anticipated that transboundary effects will be minimal due to the locality and scale of projects funded under the Regional Programme. Designated sites such as the Lough Melvin Special Area of Conservation lie within both Northern Ireland and the Republic of Ireland however, the potential disturbance of such sites has been considered to be minimal. It is considered that the effects, both beneficial and adverse, of the implementation of the Regional Programme will not impact upon Northern Ireland.

6.6.4 Projects funded under the Regional Programme will need to comply with cross jurisdiction environmental legislation which extends into the marine environment. Projects flowing from the Regional Programme must act in accordance with EU and national environmental assessment requirements and legislation, specifically AA and Environmental Impact Assessment (EIA), within the jurisdiction of which they fall.

7 MITIGATION AND RECOMMENDATIONS

7.1.1 Annex 1 of the SEA Directive requires the Environmental Report to set out "*the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme*". This chapter therefore sets out mitigation measures appropriate to minimising the adverse effects identified in Chapter 6.

7.2 Existing Policy Framework within the Regional Programme

7.2.1 The key challenges and future ambitions for the programme area are clearly set out in the RSES for the Southern Region and the RSES for the Eastern and Midland Region. Any future projects/initiatives funded through implementation of the Policy and Specific Objectives within the Regional Programme must therefore comply with the existing policies set out within the RSESs. This is alongside ensuring compliance with National and European legislation and policy.

7.2.2 The development of the Regional Programme has been undertaken alongside the SEA, as per the SEA Regulations. This promotes a hierarchy beginning with avoidance before considering mitigation measures. Through iterative discussion during the preparation of the Regional Programme, potential impacts have been identified and addressed where possible at an early stage, this includes the provision of environmental protection wording at the beginning of the Programme, as follows:

Environmental and Do No Significant Harm (DNSH) Statement

The programme area has a wealth of environmental assets from Ireland's highest mountains, dramatic coastlines, and remote rural areas to fertile agricultural landscapes. Our rich urban environment includes a strong and historic network of cities, towns and villages. These have associated flora, fauna, biodiversity and cultural heritage assets, many of which are protected through European and National legislation, including Special Areas of Conservation, Special Protection Areas, Natural Heritage Areas and Proposed Natural Heritage Areas. The Programme includes environmental assessment documents, on Strategic Environmental Assessment (SEA), an Appropriate Assessment (AA) and a Strategic Flood Risk Appraisal Screening (SFRA).

Reflecting the importance of tackling climate change in line with the Union's commitments to implement the Paris Agreement and the United Nations Sustainable Development Goals, the programme will contribute to mainstreaming climate actions and to support activities that would respect the climate and environmental standards and priorities of the Union and would Do No Significant Harm (DNSH) to environmental objectives within the meaning of Article 17 of Regulation (EU) 2020/852 of the European Parliament and of the Council. To ensure compliance with the requirements for DNSH the programme will endeavour to support projects and activities that protect biodiversity, water, air & land quality, and marine resources, that encourages circular economy initiatives that reduce waste and increases recycling and that reduce greenhouse gas emissions.

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

- *Ecological Impact Assessment Report (EcIA);*
- *Environmental Report;*
- *Environmental Impact Assessment Report - if necessary, under the relevant legislation;*
- *Natura Impact Statement - if necessary, under the relevant legislation.*

Environmental Assessment

Any reference to support for all plans, projects, activities and development in the Programme should be considered to refer to 'environmentally sustainable development' that has no adverse effects on the integrity of European sites and no net loss of biodiversity, that shall be subject to appropriate feasibility studies, best practice site/route selection (to consider environmental constraints such as landscape, cultural heritage, the protection of water quality, flood risks and biodiversity as a minimum), environmental assessment including EcIA to support development management and where required, the completion of statutory SEA, EIA and AA processes as appropriate.

The Programme seeks to protect, manage, and through enhanced ecological connectivity, improve the coherence of the Natura 2000 Network in the Region.

Support for other plans/ programmes (and initiatives arising) is on the basis of appropriate SEA, SFRA, EIA and AA processes being undertaken in order to ensure the avoidance of adverse effects on European Sites and ensure implementation of mitigation measures where required.

The Programme encourages relevant development proposals that aim to protect of inland surface waters, transitional waters, coastal waters and groundwater, preventing pollution, further deterioration of water quality, promotes sustainable water use and enhances improvement of the aquatic environment.

Any planning consent process emanating from support through the programme will ensure compliance with the EU's Waste Framework Directive and EU Action Plan for the Circular Economy as such projects will be subject to:

> *the objectives of City and County Development Plans and Local Area Plans supporting the circular economy and prioritizing waste prevention followed by re-use, recycling and recovery before landfill.*
>
> *adhere to Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects published by the Department of Housing Local Government and Heritage and any updated guidelines and*
>
> *adhere to the new National Waste Management Plan for a Circular Economy (NWMPCE), which will replace the Southern Region Waste Management Plan 2015-2021 and the Eastern and Midland Waste Management Plan 2015-202.*

Thereby, minimising the use of natural resource inputs, reducing waste, pollution and carbon emissions and improving the productivity of resources used in development through

extending the life span of materials and facilitating the repurposing, recycling and re-use of these resources at end of life.

7.3 Do No Significant Harm

7.3.1 In line with the 'Do No Significant Harm' (DNSH) EU Regulation (under the 'protection and restoration of biodiversity and ecosystems' environmental objective), the SRA would not support any projects arising from the Regional Programme where adverse effects on European site(s) cannot be readily avoided/ mitigated. This will ensure compliance with National and European legislation and policy.

7.3.2 A separate DNSH Report has been produced for the Regional Programme (RSK, 2022). The conclusion of the DNSH assessment is that the Policy Objectives of the Regional Programme Do No Significant Harm.

7.4 Minimising Adverse Effects

7.4.1 No significant adverse effects are identified and therefore there is no requirement for mitigation. Nevertheless the following recommended measures are identified in the detailed matrix assessment in order to reduce the potential for adverse, non-significant, effects in respect of PO2 RSO2.1 and PO5 RSO5.1 which were found to have potential minor adverse effects on ecology and nature conservation, water, material assets and as a result, natural capital.

7.4.2 Such works under these PO's will be subject to controls through project design, the planning process and relevant regulations that act to ensure any effects are not significant. Construction Environmental Management Plans (CEMP) should be produced to help ensure impacts on both humans and the environment are minimised.

7.4.3 Whilst the majority of projects funded through the Regional Programme will not lead to adverse effects (relating to disturbance/displacement) on ecology and nature conservation, in those instances where development/ regeneration takes place, planners and developers must ensure rigorous site selection processes have been carried out to avoid adverse impacts wherever possible. Consent from the appropriate consenting authority may be required for certain works where protected species may be affected.

7.4.4 Where potential for disturbance/displacement effects are identified, measures such as buffer zones at the edge of developments, timing works to avoid sensitive times (such as bird breeding and roosting bat season, or fish migration periods), noise mitigation, visual screening (natural and artificial) and reducing access to sensitive habitats could be incorporated into scheme designs to avoid such effects. Any removal of vegetation such as hedges should be preceded by an ecological survey. Where invasive species are present, equipment should be cleaned to help prevent these species from spreading.

7.4.5 Construction and Demolition (C&D) waste is the largest single waste stream in the EU making up around one third of all waste produced annually so it is critical that it is managed effectively. Projects resulting from PO2 RSO2.1 and PO5 RSO5.1 should align with the Whole of Government Circular Economy Strategy 2022-2023. Where possible, locally sourced materials should be recommended, and recycling encouraged.

7.4.6 Adverse effects on water will be minimised by using best practice measures during construction and demolition alongside standard survey and mitigation procedures as part of the planning application process. Town centre regeneration projects should retain existing buildings where possible and prevent loss of permeable surfaces.

7.4.7 Environmental enhancement should be encouraged within town centre regeneration proposals, particularly measures to facilitate multifunctional greenspaces that enhance human health and quality of life, water, soil, air quality, climate regulation and biodiversity. These could include provision of sustainable transport links such as walking and cycling routes and other opportunities for outdoor recreation such as green gyms, play areas or allotments to enhance health and wellbeing and connection to the natural environment.

7.4.8 Mitigation measures set out by SEA Objective can be found in Appendix E.

7.4.9 The excerpt from the Regional Programme cited above in Section 7.2.2 demonstrates its commitment to environmental protection through high level principles for economic activities arising out of investments associated with the Programme. The Regional Programme encourages relevant development proposals that aim to protect and enhance the environment and promote the circular economy.

7.5 Environmental Enhancements

7.5.1 The following potential enhancement measures are recommended. These are intended to improve the overall performance of the Regional Programme with a focus on the environment based objectives. The adoption of these recommendations is not a mandatory part of the SEA process and hence it is for SRA as the plan-making body to decide on the extent to which they should form part of the final Programme.

7.5.2 It is recognised that these recommendations may already be included in the Regional Programme scope at least to some extent and that further definition may only emerge at the implementation stage.

7.5.3 The recommendations proposed recognise that the Programme is limited in scope and funding availability and therefore only measures considered to be realistic in terms of funding provision and consistent with wider Regional Programme objectives are proposed.

The Inclusion of Green and Blue Infrastructure.

7.5.4 Measures related to the regeneration of shared space and placemaking through town centre regeneration already forms a key part of the Regional Programme activities. The location and nature of such proposals are not yet established and are expected to emerge during the implementation periods.

7.5.5 In addition to the community orientated benefits of this measure there is opportunity to direct funding towards environmental improvements, both very simple measures such as the erection of bird and bat boxes, to the more ambitious projects such as the creation of new green space that includes vital habitat, for example in the form of pocket parks and urban wildlife gardens.

7.5.6 The implementation of Sustainable Urban Drainage Systems (SuDS) within economic activities would be an effective intervention where appropriate. SuDS are designed to both

manage the flood and pollution risks resulting from urban runoff and to contribute wherever possible to environmental enhancement and place making. With this in mind, the multi-functionality and multiple benefits of SuDS should always be considered. Projects will adhere to new national guidelines 'Nature-based Solutions to the Management of Rainwater and Surface Water Runoff in Urban Areas. Water Sensitive Urban Design. Best Practice Interim Guidance Document' prepared by the Department of Housing, Local Government and Heritage. Further, the SRA will be publishing shortly with ARUP a framework and good practice toolkit for implementing Nature Based Solutions (NbS) and Blue Green Infrastructure (BGI) (Our Green Region Report) for planning and project design in the Region.

7.5.7 The above actions are encouraged as it is anticipated that this would have strong beneficial effects on the multiple SEA objectives including ecology and nature conservation, health and quality of life, soil and land use, water, landscape and natural capital.

Climate Adaption Opportunities

7.5.8 Environmental enhancement measures should be encouraged for all town centre regeneration projects, particularly opportunities to help adaptation to climate change impacts such as green spaces, SuDS and street trees. Walking and cycling should be facilitated as part of regeneration proposals, to reduce GHG emissions from transport.

Town Centre Regeneration and Energy Retrofits– Waste and Circular Economy.

7.5.9 Construction and renovation activities that are funded through the programme should support circularity, assessing the disassembly or adaptability of materials, and where possible, projects should be designed to be more resource efficient, adaptable, flexible and dismantleable to enable reuse and recycling.

7.5.10 Operators should limit waste generation in processes related to construction, demolition, renovation and retrofitting, in accordance with the EU Construction and Demolition Waste Management Protocol. Best available techniques should be implemented to enable removal and safe handling of hazardous substances and facilitate reuse and high-quality recycling by selective removal of materials.

7.5.11 Non-hazardous construction and demolition waste generated through construction activities should be prepared for reuse, recycling and other material recovery, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.

7.6 Residual Effects of the Regional Programme

7.6.1 The Regional Programme is not anticipated to have any significant adverse residual effects on the identified SEA objectives.

8 MONITORING

8.1 Monitoring Proposals

8.1.1 Article 10 of the SEA Directive requires SRA, as the Managing Authority, to monitor significant environmental effects of implementing the Regional Programme. This must be done in such a way as to also identify unforeseen adverse effects and to take appropriate remedial action. Monitoring should commence as soon as the Regional Programme is adopted, with annual reporting carried out over its lifespan. It may be necessary to revise the monitoring periodically so that it takes account of new methods and increased understanding of the baseline environment.

8.1.2 It is important that any monitoring proposed by the SEA should aim to specifically monitor the impact of the Regional Programme rather than monitoring trends in the baseline environment that would have occurred regardless of the Regional Programme. In accordance with the SEA Regulations, monitoring should also focus on aspects of the Regional Programme where environmental impacts are predicted to be significant.

8.1.3 As noted in Section 7, no significant adverse residual environmental effects are anticipated although it is noted that there are some inherent uncertainties arising from the lack of project details that will be funded through the Regional Programme. Therefore, it is desirable that monitoring be carried out to validate the predictions and to allow detection of any unforeseen environmental effects not identified through the SEA process.

8.1.4 Indicators that the SRA or other managing authorities could consider to monitor the environmental impact and achievement of the Regional Programme are listed by SEA Objective in Appendix E. Following EPA guidance, the measures proposed are focused not only on the identified adverse and uncertain effects but consideration is also given to monitoring of the anticipated beneficial effects.

8.1.5 Taking into account the requirement to monitor environmental effects and other regulatory requirements (such as ERDF requirements) SRA proposes the following measures to assess and monitor the environmental and social impact.

Programme Monitoring Committee (PMC)

8.1.6 The partnership principle and the European Code of Conduct on Partnership will be reflected in both the PMC's membership and adopted rules of procedure. Gender balance will be promoted on the PMC. Membership, which will be published on the programme website, will include representatives from:

- *Member State (DPER),*
- *Regional, local, national, and other relevant public authorities, including those responsible for implementation and Government Departments representing the horizontal principles,*
- *Elected Representatives at regional level,*
- *Representatives from other EU shared management funds in Ireland,*
- *Economic and social partners,*

- *Bodies representing civil society - environmental partners, non-governmental organisations, and bodies responsible for promoting social inclusion, fundamental rights, rights of persons with disabilities, gender equality and non-discrimination,*
- *Research organisations and academic institutions,*
- *European Commission (in an advisory capacity).*

8.1.7 A shadow Monitoring Committee was established in April 2022 and reflects the above membership requirements.

8.1.8 The selection methodology and evaluation criteria for the selection of operations will be approved by the PMC. In selecting projects, consideration will be given to potential environmental effects of the proposed projects. The selection of projects will be made based on criteria that consider the most environmentally sustainable solutions. These criteria shall be adapted to the nature of the intervention and applied as widely as possible across the specific objectives.

8.1.9 During the implementation of the programme, the Managing Authority will promote the strategic use of public procurement to support Policy Objectives (including professionalisation efforts to address capacity gaps). Beneficiaries will be encouraged to use more quality-related and lifecycle cost criteria. When feasible, environmental (e.g., green public procurement criteria) and social considerations as well as innovation incentives will be incorporated into public procurement procedures.

8.1.10 The PMC will meet at least once yearly to examine and make recommendations on all issues affecting programme implementation, progress in achieving milestones and targets and measures taken to address issues, including relevant programme contributions to Ireland's country-specific recommendations, elements of the ex-ante assessments, evaluations and follow up to associated findings, progress on implementation of communications and visibility actions and implementing operations of strategic importance, actions to ensure fulfilment of enabling conditions, progress in administrative capacity-building for public bodies, partners, and beneficiaries, as relevant.

8.1.11 The MA will submit a programme evaluation plan to the PMC within a year of approval. Similarly, a mechanism for reporting to the PMC cases of non-compliance of supported operations with the Charter of Fundamental Rights of the EU will be put in place to ensure enabling conditions remain considered and respected during implementation.

9 NEXT STEPS

9.1 Consultation on the Environmental Report

9.1.1 This Environmental Report (including NTS) is being presented for public and statutory consultation for a period of six weeks commencing 3rd August 2022. All documents can be found at the following web address: http://www.southernassembly.ie/eu-programmes/sem2127.

9.1.2 The Environmental Report has been issued to the relevant Consultation Bodies in Ireland. The Northern Ireland Government has designated the DAERA as the statutory Consultation Body and delivery of this function is led by NIEA. Members of the public likely to participate in SEA consultation are those affected or likely to be affected by, or having an interest in the decision-making, including relevant non-governmental organisations, such as those promoting environmental protection.

9.1.3 The purpose of this stage is to give the public and the Consultation Bodies an opportunity to express their opinions on the findings of the Environmental Report, and to use it as a reference point in commenting on the Programme. In line with the SEA Directive and Regulations, SRA must take account of the Environmental Report and of any opinions which are expressed upon it as it prepares the Programme for adoption. Therefore, comments received from the Consultation Bodies, members of the public and other stakeholders during the consultation process must be considered and, if appropriate, addressed in the final Programme documents.

9.1.4 Once the Regional Programme has been adopted, a SEA Statement will be produced to provide information on how the Environmental Report and consultees' opinions were taken into account in deciding the final form of the Regional Programme.

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APPENDIX A: ENVIRONMENTAL BASELINE MAPS

Figure 1: Location

Figure 2: The National Deprivation Index for Ireland

Figure 3: Cultural heritage

Figure 4: Statutory Designations -Landscape and cultural heritage sites

Figure 5: Unemployment Rate

Figure 6: Ecological Designations

Legend:

- SEMRA regional boundary
- Counties OSi Ireland

Coordinate System: IRENET95 Irish Transverse Mercator
Projection: Transverse Mercator
Datum: IRENET95
Units: Meter

Rev	Date	Description	Drn	Chk	App
00	07/02/2022	First Draft	PS	PG	MK

SEA of the Southern and Eastern Midland Regional Assembly

RSK

TITLE: Figure 1.0:
Location Plan

ID:603814 SRA-EMRA Plans_INF001_LocationMap_A3_L

0 20 40
Kilometres

Scale: 1:1,150,000 @ A3

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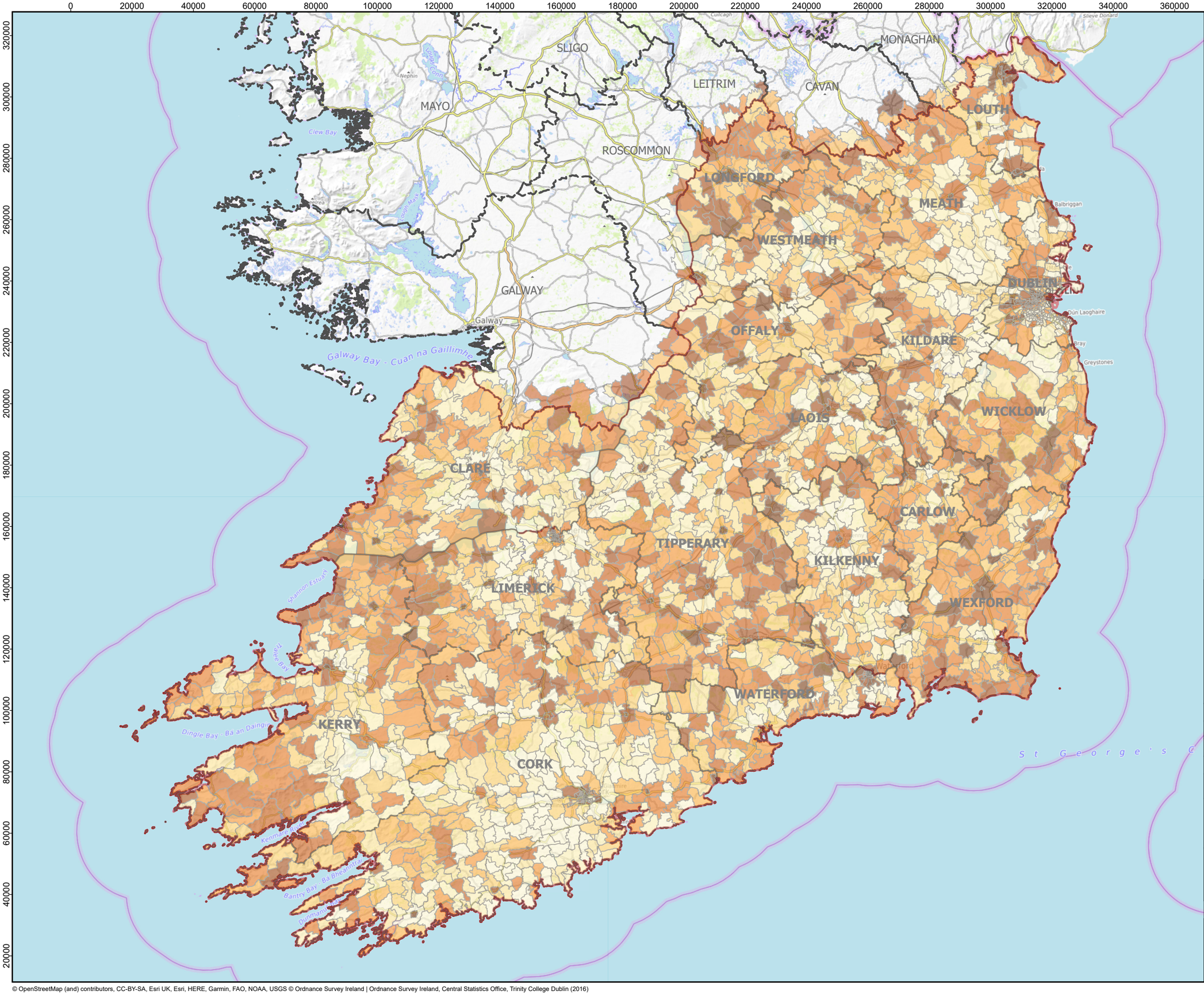
REV 00

Path: D:\Work2021\603814 SRA and EMRA\01 - GIS\603814 SRA-EMRA Plans.aprx\INF001_LocationMap



Legend:

- 1 - Least Deprived
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 - Most Deprived
- SEMRA regional boundary
- Counties OSi Ireland

Coordinate System: IRENET95 Irish Transverse Mercator
Projection: Transverse Mercator
Datum: IRENET95
Units: Meter

Rev	Date	Description	Drn	Chk	App
00	07/02/2022	First Draft	PS	PG	MK

SEA of the Southern and Eastern Midland Regional Assembly

RSK

TITLE: Figure 2.0:
Deprivation Ranking for Ireland

ID:603814 SRA-EMRA Plans_SOC001_Deprivation_A3_L

0 20 40
Kilometres

Scale: 1:1,150,000 @ A3

REV 00

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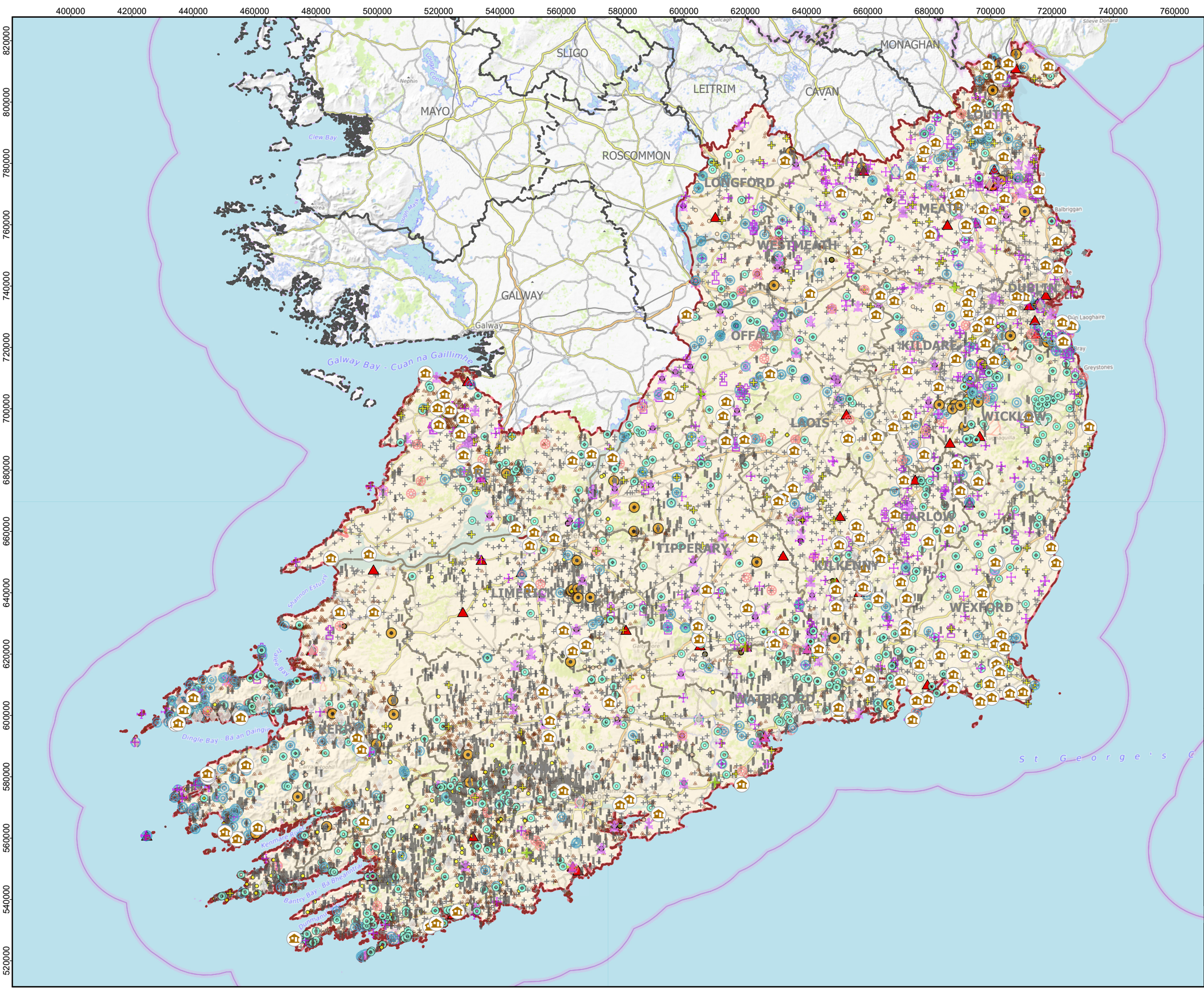

Legend:

- Castles and Fortified places selection
- Monuments (DAHG)
- Megalithic, or Souterrain
- Ogham stone
- Stone circle
- Standing stone
- Pillar stone
- High cross
- Cross
- Cross-slab/cross-inscribed stone or pillar
- Market cross
- Inscribed stone or Decorated stone
- Bullaun stone
- Stone sculpture / Sheela-na-gig
- Memorial or ritual stone
- Road-related stone monuments (misc)
- Misc stone monuments
- SEMRA regional boundary
- Counties OSi Ireland

Coordinate System: IRENET95 Irish Transverse Mercator
Projection: Transverse Mercator
Datum: IRENET95
Units: Meter

Rev	Date	Description	Drn	Chk	App
00	07/02/2022	First Draft	PS	PG	MK

SEA of the Southern and Eastern Midland Regional Assembly

RSK

TITLE: Figure 3.0:
Cultural Heritage

ID:603814 SRA-EMRA Plans_CH001_LocationMap_A3_L

0 20 40
Kilometres

Scale: 1:1,150,000 @ A3

REV 00

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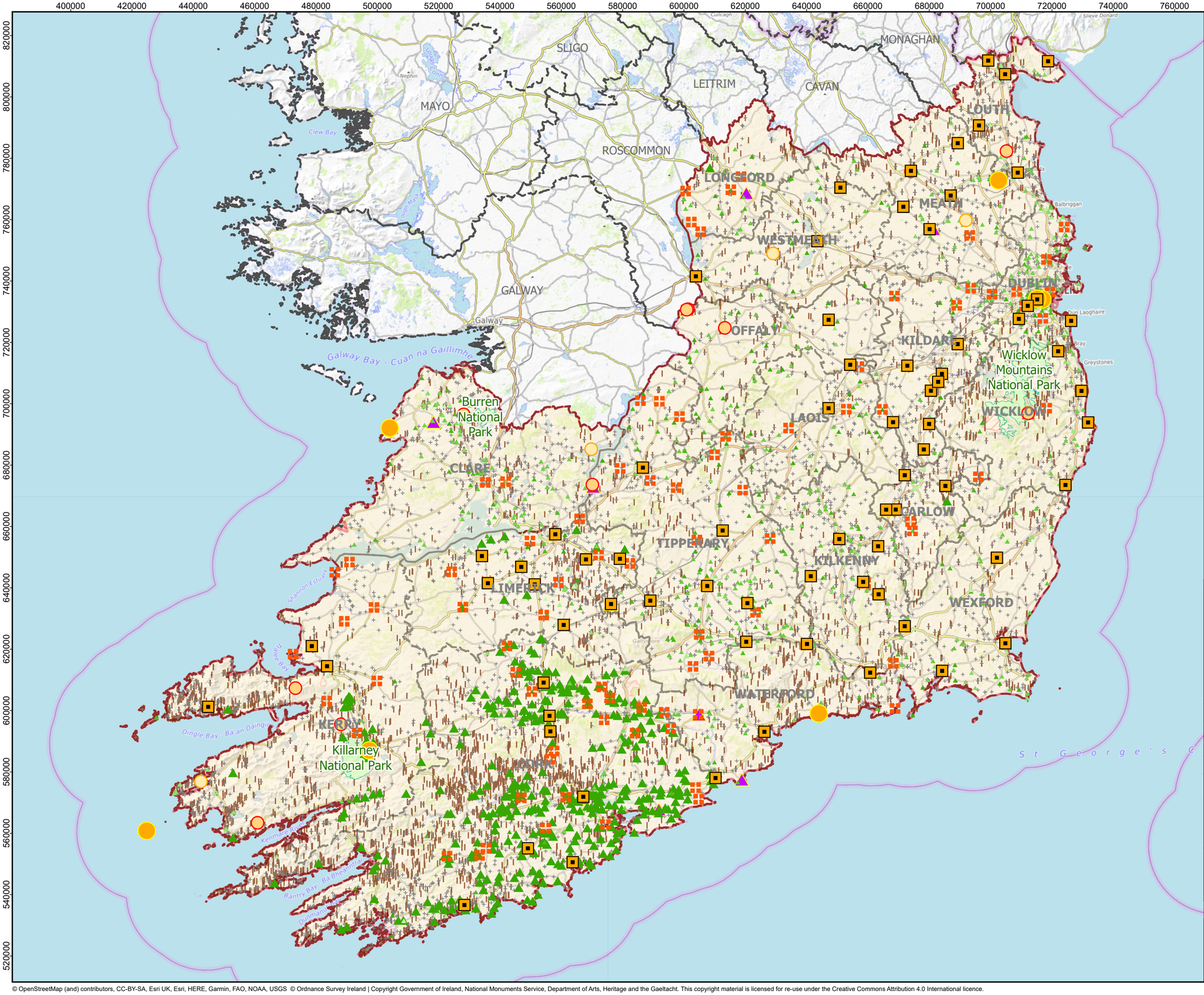

Legend:

- UNESCO Sites
- UNESCO Tentative List - 2021
- UNESCO Tentative List - 2010
- Country house
- House - fortified house
- House - 19th century
- House - 18th/19th century
- House - 18th century
- House - 17th/18th century
- House - 17th century
- House - 16th/17th century
- House - 16th century
- House - medieval
- House - early medieval
- House - Iron Age
- House - Bronze Age
- House - Neolithic
- House - prehistoric
- Castle - Anglo-Norman
- Walled Town
- NMS - (Cathedral)
- NMS - (Burial site / grave)
- NMS - (Standing stones etc)

Coordinate System: IRENET95 Irish Transverse Mercator
Projection: Transverse Mercator
Datum: IRENET95
Units: Meter

Rev	Date	Description	Drn	Chk	App
00	07/02/2022	First Draft	PS	PG	MK

SEA of the Southern and Eastern Midland Regional Assembly

RSK

TITLE: Figure 4.0:
Statutory Designations - Landscape and Cultural Heritage Sites

ID:603814 SRA-EMRA Plans_LAN001_DesignationMap_A3_L

0 20 40
Kilometres

Scale: 1:1,150,000 @ A3

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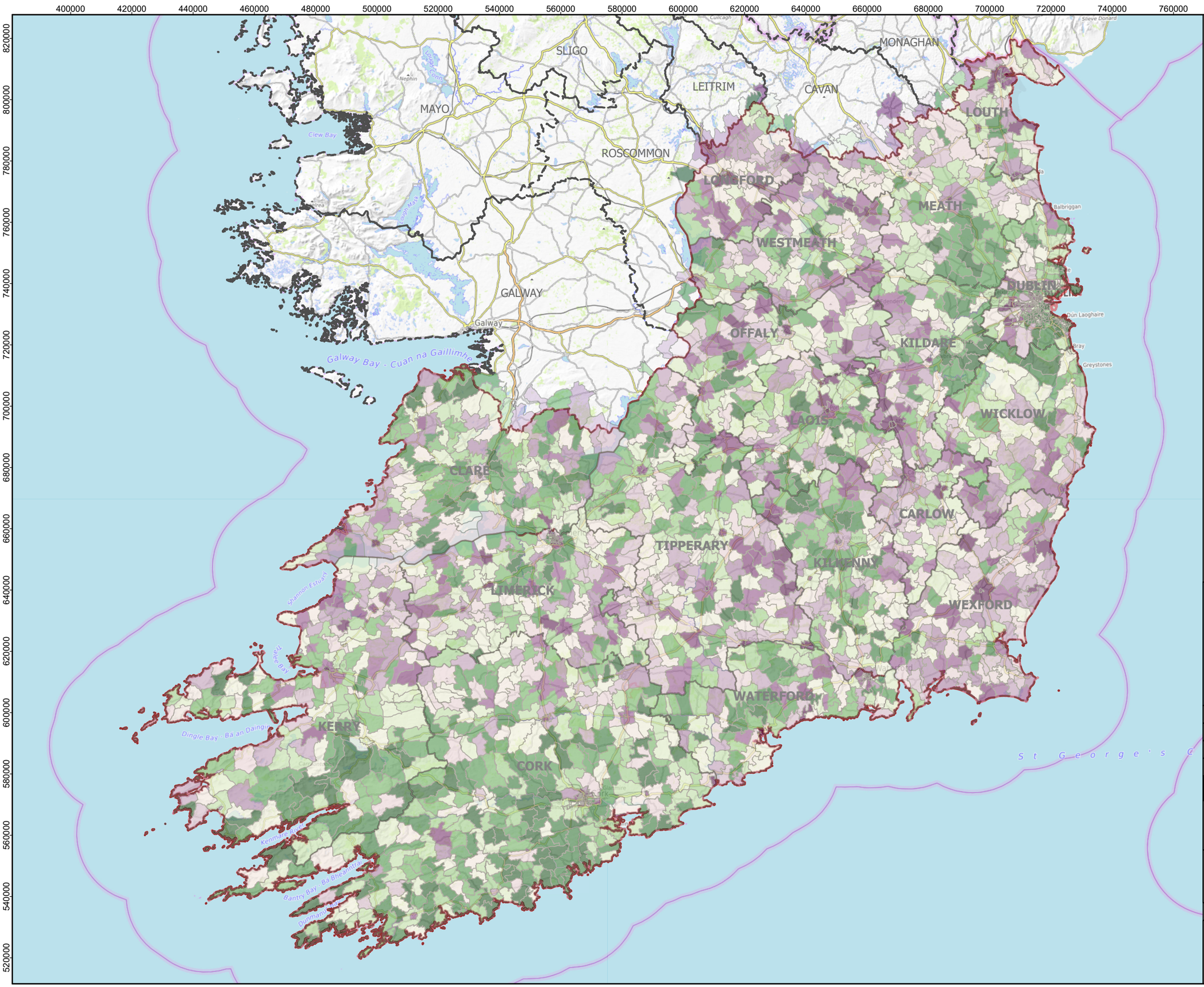
Path: D:\Work2021\603814 SRA and EMRA\01 - GIS\603814 SRA-EMRA Plans.aprx\LAN001_DesignationMap



Legend:

% Unemployed - Total, Census 2016

<5

10

>20

SEMRA regional boundary

Counties OSi Ireland

Coordinate System: IRENET95 Irish Transverse Mercator
Projection: Transverse Mercator
Datum: IRENET95
Units: Meter

Rev	Date	Description	Drn	Chk	App
00	08/02/2022	First Draft	PS	PG	MK

SEA of the Southern and Eastern Midland Regional Assembly

RSK

TITLE: Figure 5.0:
Unemployment Rate (2016)

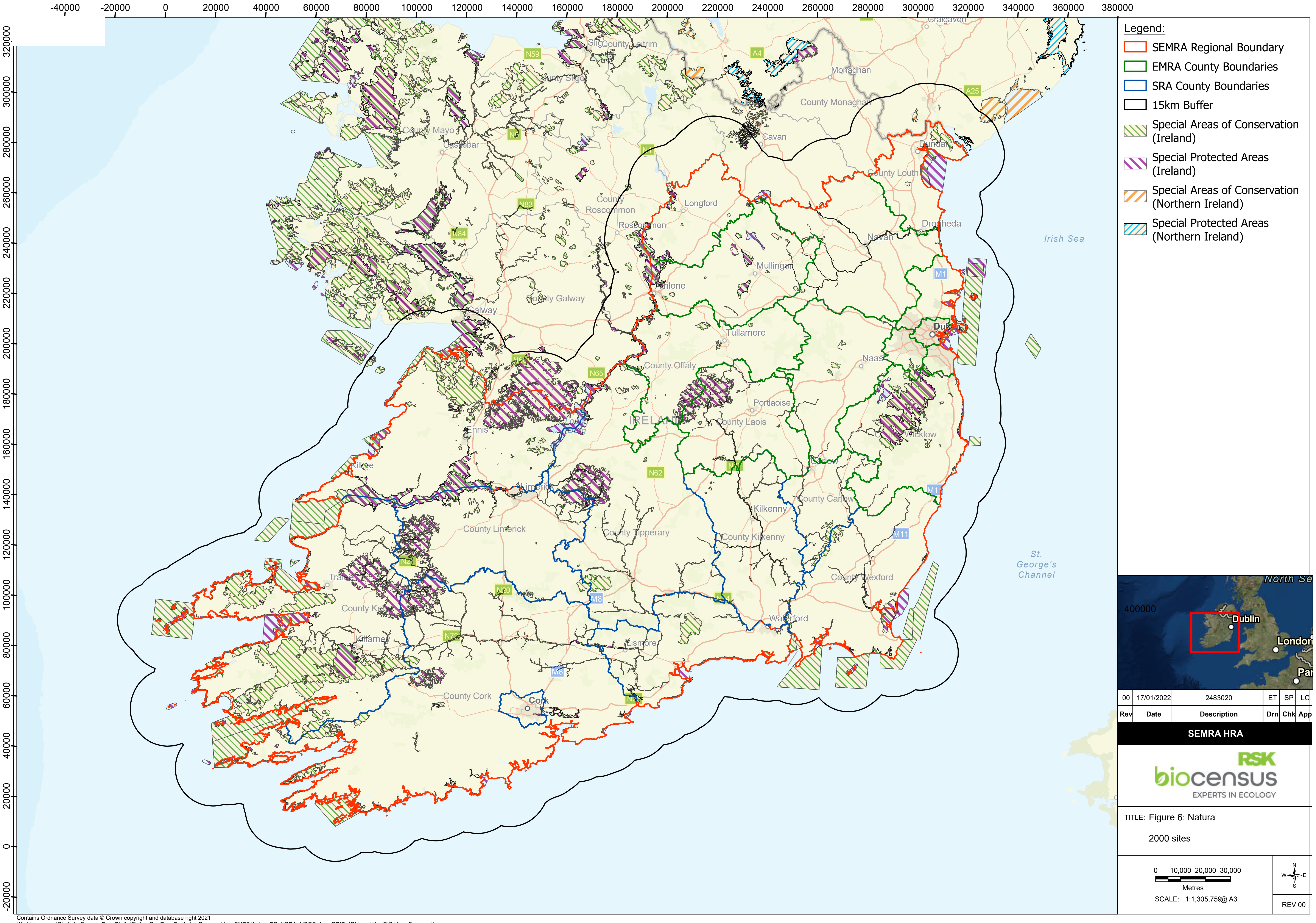
ID:603814 SRA-EMRA Plans_SOC002_UnemploymentMap_A3_L

0 20 40
Kilometres

Scale: 1:1,150,000 @ A3

REV 00

Path: D:\Work2021\603814 SRA and EMRA\01 - GIS\603814 SRA-EMRA Plans.aprx\SOC002UnemploymentMap



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Rev	Date	Description	Drn	Chk	App

SEMRA HRA

RSK biocensus
EXPERTS IN ECOLOGY

TITLE: Figure 6: Natura 2000 sites

0 10,000 20,000 30,000
Metres
SCALE: 1:1,305,759@ A3

REV 00

Document Path: C:\OneDrive\RSK Group\RSK Biocensus - 2483020 - HRA for SRA Ireland\06 GIS\2483020 - SEMRA Ireland - Figure 1 - Natura 2000 sites.aprx

APPENDIX B: REVIEW OF OTHER PLANS, PROGRAMMES AND ENVIRONMENTAL PROTECTION OBJECTIVES

Plan or Programme	Main objectives and environmental / socio-economic requirements of the Plan or Programme	How it affects, or is affected by the Regional Programme.
DCHG (2017) National Biodiversity Action Plan (NBAP) 2017-2021	The NBAP for 2017-2021 demonstrates Ireland's continuing commitment to meeting and acting on its obligations to protect their biodiversity for the benefit of future generations through a series of targeted strategies and actions. The plan has seven objectives; 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.	The Specific Objectives of the Regional Programme are not expected to directly affect Biodiversity. However, effects on biodiversity should be considered especially when supporting town centre regeneration and public realm improvements under PO5.
NPWS Conservation Plans and/or Conservation Objectives for SACs and SPAs	Conservation plans are drawn up for several sites and include descriptive details and a management framework component which outlines objectives and strategies. These objectives are site specific but generally aim to maintain and/or restore the favourable conservation condition of the habitats and species of the site.	The Specific Objectives of the Regional Programme are not expected to directly affect SAC's or SPA's. However, effects on protected areas should be considered especially when supporting town centre regeneration and public realm improvements under PO5.
EC (2020) EU Biodiversity Strategy for 2030	This strategy aims to ensure that Europe's biodiversity will be on the path to recovery by 2030 for the benefit of people, the planet, the climate and our economy, in line with the 2030 Agenda for Sustainable Development and with the objectives of the Paris Agreement on Climate Change. It addresses the five main drivers of biodiversity loss, sets out an enhanced governance framework to fill remaining gaps, ensures the full implementation of EU legislation, and pulls together all existing efforts. It covers three main areas: Protecting and restoring nature in the European Union, Enabling transformative change, and The European Union for an ambitious global biodiversity agenda.	The strategy urges the promotion of healthy ecosystems, green infrastructure and nature-based solutions to be systematically integrated into urban planning, including in the design of buildings, public spaces and infrastructure. Therefore, effects on biodiversity should be considered especially when supporting town centre regeneration and public realm improvements and placemaking under PO5.
Government of Ireland (2018) Project Ireland 2040: National Development Plan 2021-2030	The National Development Plan (NDP) sets out the investment priorities that will underpin the successful implementation of the new National Planning Framework (NPF). The objectives of the National Development Plan match those of the NPF. A fundamental underlying objective of the NDP is, therefore, to focus on continued investment to yield a public infrastructure that facilitates priorities such as high-speed broadband and public transport in better	The Regional Programme alongside the RSES compliment the NDP's Strategic Investment Priorities, in particular in relation to the implementation of the new national strategy for R&I, providing support for talent and research, including research centres especially Technical Universities. PO1.

Plan or Programme	Main objectives and environmental / socio-economic requirements of the Plan or Programme	How it affects, or is affected by the Regional Programme.
	cities and in better communities. The public goods generated through investment in physical infrastructure will be critical to strengthening Ireland's human capital and to fostering the development of clusters in important growth areas in order to attract new investment.	
National planning Framework (2018)	The National Planning Framework and the National Development Plan 2021-2030 combine to form Project Ireland 2040. The NPF sets the vision and strategy for the development of the country to 2040 and the NDP provides the enabling investment to implement that strategy.	The Regional Programme aligns with the NPF through RSO 5.1. An integrated and strategic approach to the regeneration of SRA region's towns as part of ERDF schemes under PO5 has been developed.
Indecon Needs Analysis (2020)	The Needs Analysis is an independent report of the needs which could be addressed by EU Cohesion Funding. The analysis will help to underpin the planning for Ireland's Partnership Agreement for the next programming period (2021-2027). The objective is to inform strategic choices for the use of ERDF/ESF+ funds.	The Needs Analysis has been used to inform the Regional Programme. Therefore, the policies of the analysis and Programme align.
National Smart Specialisation Plan (2022)	Smart Specialisation is an enterprise innovation policy concept developed by the European Commission that aims to boost regional innovation, contributing to growth and prosperity by helping and enabling regions to focus on their strengths. The development of a new Smart Specialisation Strategy (also known as S3) presents an opportunity to assess, with stakeholders, our regional competitive advantages, future market opportunities, solutions to societal challenges, and the effectiveness of the current suite of enterprise innovation supports.	The Regional Programme aligns the plan's aims, in particular in relation to developing of training programmes closely aligned to S3, establishing of the new Smart Hub model for R&I, and providing infrastructure and resources for talent and research. Therefore, The Regional Programme aligns with the aims of the Plan through RSO 1.1.
Regional Enterprise Plans (2022)	Regional Enterprise Plans have been developed across Ireland. They have been developed by regional stakeholders and focus on undertaking collaborative initiatives that can help realise enterprise growth and job creation in each of the nine regions across Ireland.	The Regional Programme aligns with the aims of the plans. Prepared integrated regional plans and master plans define a strategic approach to projects and initiatives aimed at regeneration and growth of SRA region's towns as part of ERDF schemes through RSO 5.1. Support to SME productivity is provided through RSO 1.3: Enhancing sustainable growth, competitiveness and job creation in SMEs through delivery of regional projects.
Regional Waste Management Plans	Regional waste management plans give effect to national and EU waste policy, and address waste prevention and management (including generation, collection and treatment) over the period 2015-2021.	Development under the Regional Programme may include public realm improvement projects that produce large amounts of waste and should take into account the Regional Waste Management Plan.
National Wastewater Sludge Management Plan	Irish Water has published the first National Wastewater Sludge Management Plan (NWSMP) outlining its strategy for managing wastewater sludge over the next 25 years. The NWSMP sets out a nationwide standardised approach to ensure that treated wastewater sludge across the country is effectively managed, stored,	The Regional Programme is unlikely to affect or be affected by the Plan. Development and regeneration funded under the Regional Programme should take into account

Plan or Programme	Main objectives and environmental / socio-economic requirements of the Plan or Programme	How it affects, or is affected by the Regional Programme.
	transported and re-used or disposed of in a sustainable way, to the benefit of the public and the environment.	the National Wastewater Sludge Management Plan.
Housing for All 2021 a new Housing Plan for Ireland	Housing for All - a New Housing Plan for Ireland' is the government's housing plan to 2030. It is a multi-annual, multi-billion euro plan which will improve Ireland's housing system and deliver more homes of all types for people with different housing needs. The government's overall objective is that every citizen in the State should have access to good quality homes: • to purchase or rent at an affordable price • built to a high standard and in the right place • offering a high quality of life	The Regional Programme forms one of the mechanisms for implementing the policies developed through the Regional Plans . Development and regeneration funded under RSO5.1 of the Regional Programme should take into account Housing for All 2021.
Research and Innovation Strategy (currently being reviewed)	Impact 2030: Ireland's Research and Innovation Strategy' puts research and innovation (R&I) at the heart of addressing Ireland's social, economic and environmental challenges. Impact 2030 will maximise the impact of research and innovation on many national priorities. It will progress objectives shared across the Irish R&I system such as maximising its impact on public policymaking and implementation, and nurturing and attracting talent.	The Regional Programme aligns with Impact 2030 aims, in relation to the developing of the new Smart Hub model to maximise the efficiency of R&I within regions, and providing infrastructure and resources for talent and research, to address the opportunities and challenges facing SRA programme area. PO1.
Future Jobs Ireland	Future Jobs Ireland, along with Project Ireland 2040, Global Ireland 2025 and the Climate Action Plan represents an integrated approach to prepare for the opportunities and challenges of the future economy. Future Jobs Ireland focuses on five pillars namely: • Embracing Innovation and Technological Change • Improving SME Productivity • Enhancing Skills and Developing and Attracting Talent • Increasing Participation in the Labour Force Transitioning to a Low Carbon Economy	The Regional Programme directly aligns with Future Jobs Ireland pillars: • The Regional Programme provides support for talent and research, especially Technical Universities. RSO 1.1. • Support to SME productivity is provided through RSO 1.3: Enhancing sustainable growth, competitiveness and job creation in SMEs through delivery of regional projects.
National Water Resources Plan	The NWRP is our plan to identify how we will provide a safe, sustainable, secure and reliable water supply to our customers for now and into the future whilst safeguarding the environment. The NWRP will set out how we will balance the supply and demand for drinking water over the short, medium and long term. It is a 25-year strategy to ensure we have a safe, sustainable, secure and reliable drinking water supply for everyone.	The Regional Programme is unlikely to affect or be affected by the Plan. Development and regeneration funded under the Regional Programme should take into account the National Water Resources Plan.
National Retrofit Plan	The Irish government's National Retrofitting Scheme pledges to upgrade the energy efficiency of 500,000 homes by 2030 — around one third of homes in Ireland. It forms part of the Irish government's Climate Action Plan, which has set the target for an overall reduction in greenhouse gas emissions of 51% by 2030, and to achieve net zero by 2050.	The Regional Programme directly aligns with the plan's pledge through Strategic Objective RSO 2.1, as it will guide the delivery of energy efficiency renovations, such as retrofitting of homes, free of charge to lower-income households who are in, or are vulnerable to, energy poverty.

Plan or Programme	Main objectives and environmental / socio-economic requirements of the Plan or Programme	How it affects, or is affected by the Regional Programme.
Regional Spatial & Economic Strategy (RSES) for the Southern Region (2021-2032)	The RSES sets out the strategic regional development framework for the Region, with a primary aim to implement *Project Ireland 2040* - the *National Planning Framework*, at the regional tier of Government and to support the achievement of balanced regional development. The RSES' objectives include protect and enhance the environment; combat climate change; achieve economic prosperity and improved quality of life; assist growth and development in suitable locations.	The Programme Strategy for ERDF in the Southern Region Programme Area is directly linked to the Regional Spatial and Economic Strategy (RSES) for the region. The ambition of the SRA is to utilise the funding available in the ERDF Regional Programme to support the delivery of key regional objectives and priorities as set out in the RSES.
Regional Spatial & Economic Strategy (RSES) for the Eastern and Midland Region(2019-2031)	The RSES main purpose is to support the implementation of *Project Ireland 2040* - the *National Planning Framework* and *National Development Plan 2019-2027*. It provides a strategic plan which identifies assets, opportunities and pressures to manage growth; sustain a strong economy; manage the delivery of key enabling infrastructure and services; accelerate climate action.	The Programme Strategy for ERDF in the Eastern and Midland Region Programme Area is directly linked to the Regional Spatial and Economic Strategy (RSES) for the region. The ambition of EMRA is to utilise the funding available in the ERDF Regional Programme to support the delivery of key regional objectives and priorities as set out in the RSES.
Rural Development Programme (RDP) 2014-2022	The Rural Development Programme (RDP) 2014-2022 is part of the Common Agricultural Policy (CAP). The leading priority of the Irish RDP is restoring, preserving and enhancing ecosystems related to agriculture and forestry. Following the most recent CAP reform, new rural development measures have been set up 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.	It is not anticipated that the Regional Programme will have a direct influence on agricultural production but it may support rural and agricultural businesses through RSO 1.3: Enhancing sustainable growth and competitiveness of SMEs and job creation in SMEs.
National broadband plan	Aligned with the Digital Agenda for Europe, the National Broadband Plan (NBP) aims to deliver high-speed broadband services to all businesses and households in Ireland.	The Regional Programme will work alongside the National Broadband Plan through actions within Specific Objective 1.3. that will be targeted at strategic regional locations where an identifiable deficit exists in key infrastructure which is necessary to develop functional regional ecosystems. The new regional Smart Hubs for Entrepreneurial Research and Innovation under Specific objective PO1 will be established in key thematic areas aligned with the Ireland's Smart Specialisation Strategy and regional strategic priorities.
'Construction 2020, A Strategy for a Renewed Construction Sector' (2014)	Construction 2020 outlines a series of measures agreed by the Government and is aimed at stimulating activity in the building industry. The total action points set out are 75 which ensure that sensible and necessary development can take place without unnecessary obstacles.	The Regional Programme supports sustainable and integrated urban development through RSO 5.1: Fostering the integrated and inclusive social, economic and environmental development, culture, natural heritage, sustainable tourism, and security in urban areas (ERDF).

Plan or Programme	Main objectives and environmental / socio-economic requirements of the Plan or Programme	How it affects, or is affected by the Regional Programme.
Food Wise 2025	Food Wise 2025, agreed by a committee of 35 stakeholders from the industry, is a ten-year vision for the growth of the Irish agri-food sector. It was published with the Food Wise Implementation Plan and in the Environmental Analysis as a final strategy in 2015. The strategy aims to create a more strategic and competitive sector within the international marketplace while supporting Ireland's sustainable and high-quality producers by targeting more quality conscious consumers.	The Regional Programme will not have a direct influence on agricultural production and the agri-food sector but may support businesses within rural and agricultural communities through RSO 1.3: Enhancing sustainable growth and competitiveness of SMEs and job creation in SMEs.
Europe 2020 Economic Strategy. A European Strategy for smart, sustainable and inclusive growth (2010)	Outlines the European Union's ten-year growth strategy and is about addressing the shortcomings of our growth model whilst creating the conditions for a different type of growth that is smarter, more sustainable and more inclusive. Five key targets have been set for the EU to achieve covering employment, education, research and innovation, social inclusion and poverty reduction, and climate/energy. Also it includes seven flagship initiatives providing a framework through which the EU and national authorities mutually reinforce their efforts in areas supporting the Europe 2020 priorities such as innovation, industrial policy and resource efficiency.	The Regional Programme supports the strategy through Specific Objectives RSO 1.1 and RSO 1.3 under Policy Objective 1: A Smarter Europe - A more competitive and smarter Europe by promoting innovative and smart economic transformation and regional ICT connectivity (PO 1).
EU Country Report (Ireland) 2019 and 2020	These reports analyse the country's key socio-economic challenges which result in providing a framework for the coordination of social and economic policies across the EU. For 2019, the reports included a specific Annex on Investment guidance for cohesion policy 2021/2027' which was not included before. For 2020, the report focused on the implementation of the UN Sustainable Development Goals (SDGs) with a new section dedicated to the analysis of Member States' environmental challenges and sustainability.	The 2019 and 2020 European Commission Country Report for Ireland highlighted the need to enhance competitiveness and the growth of Irish owned SMEs. This will be actioned through RSO 1.3: Enhancing sustainable growth and competitiveness of SMEs and job creation in SMEs. The 2020 Country Report suggests there is scope for improvement in…reducing greenhouse emissions, increasing the share of renewables, energy efficiency and poverty reduction". This will be actioned through RSO 2.1 Promoting energy efficiency and reducing greenhouse gas emissions.
EU Regional innovation Scoreboard 2021	The Regional Innovation Scoreboard (RIS) is a regional extension of the European Innovation scoreboard. The RIS 2021 follows the revised methodology of the European Innovation scoreboard (EIS) but with a reduced number of indicators due to the lower level of innovation data availability at the regional level providing a comparative assessment of the performance of regional innovation systems across 240 regions of 22 EU countries. The Southern, Eastern and Midland regions are classified as being "Strong Innovators".	The Southern, Eastern and Midland regions are classified as being "Strong Innovators". However, the programme area underperforms across a number of key innovation indicators which will be addressed through PO1.
Roadmap for Resource Efficient Europe 2011	The Roadmap to a Resource Efficient Europe outlines how Ireland can transform Europe's economy into a sustainable one by 2050. It proposes ways to increase	The Regional Programme advances Ireland's transformation into a sustainable economy in the programme area through the Specific

Plan or Programme	Main objectives and environmental / socio-economic requirements of the Plan or Programme	How it affects, or is affected by the Regional Programme.
	resource productivity and decouple economic growth from resource use and its environmental impact.	Objective RSO 5.1. This objective also aims to prepare integrated urban regeneration action plans to identify initiatives vital for town centre regeneration, placemaking, vacancy, dereliction and growth. It is also anticipated that the Regional Programme promotes resource productivity through improving of energy efficiency in the programme area. RSO 2.1.
EPA (2018) River Basin Management Plan for Ireland 2018-2021 River Basin Management Plan for Ireland 2022-2027 under consultation.	This second River Basin Management Plan (RBMP) outlines the new approach that Ireland will take as it works to protect its rivers, lakes, estuaries and coastal waters over the next four years. The following evidence-based priorities have been adopted for this river basin planning cycle: • Ensure full compliance with relevant EU legislation • Prevent deterioration • Meet the objectives for designated protected areas • Protect high-status waters • Implement targeted actions and pilot schemes in focused sub-catchments aimed at (1) targeting water bodies close to meeting their objective and (2) addressing more complex issues that will build knowledge for the third cycle	Development such as town centre regeneration and placemaking funded under the Regional Programme should take into account the River Basin Management Plan for Ireland and its priorities.
Water Services Strategic Plan (A Plan for the Future of Water Services)	This Water Services Strategic Plan (WSSP) sets out strategic objectives for the delivery of water services over the next years up to 2040. The plan takes into consideration its interaction with other national and regional plans such as the National Spatial Strategy and River Basin Management Plans. There are six strategic objectives that the plan is required to address: • Meet Customer Expectations; • Ensure a Safe and Reliable Water Supply; • Provide Effective Management of Wastewater; • Protect and Enhance the Environment; • Support Social and Economic Growth; and • Invest in Our Future.	Development and regeneration funded under the Regional Programme should take into account the Water Services Strategic Plan.
National Cycle Policy Framework (NCPF) 2009-2020	The focus of this policy is to create a strong cycling culture in Ireland thus contributing to an improved quality of life, and a stronger economy and business environment. There are a total of 19 objectives developed in the policy which cover: Infrastructure, Communication/Education, Financial Resources, Legislation and Enforcement, Human Resources and Coordination and Evaluation and Effects.	Development such as town centre regeneration and placemaking funded under the Regional Programme are likely to support the objectives of the National Cycle Policy Framework.
Smarter Travel: A Sustainable Transport Future	Published by the Department of Transport, the policy sets out proposals on how current unsustainable transport and travel patterns can be reversed, how the health and environmental impacts of current trends	It is not anticipated that the Regional Programme will directly support sustainable travel through its Specific Objectives. However, town centre

Plan or Programme	Main objectives and environmental / socio-economic requirements of the Plan or Programme	How it affects, or is affected by the Regional Programme.
'A New Transport Policy for Ireland 2009-2020'	can be reduced and how our quality of life can be improved.	regeneration and placemaking funded under the Regional Programme may support more sustainable travel withing the Region.
DCCAE (2020) National Energy & Climate Plan 2021-2030	The plan builds on previous national strategies and details the objectives regarding the five energy dimensions together with planned policies and measures to facilitate achievement of those objectives. The energy dimensions include: • Decarbonisation – GHG emissions and removals and renewable energy • Energy efficiency • Energy security • Internal energy market • Research, innovation and competitiveness	The Regional Programme promotes energy efficiency and reducing greenhouse gas emissions in the programme area through of the Specific Objectives RSO 2.1. This objective also aims to reduce energy poverty which will increase energy security within the programme area.
DCCAE (2021) National Climate Action Plan	This plan is the Irish Governments Climate Action Plan which is committed to achieving a net zero carbon energy systems objective for Irish society and in the process, create a resilient, vibrant and sustainable country. The Government will take the lead on this agenda through this Plan in defining a roadmap to this goal and initiating a coherent set of policy actions to get us there. The plan highlights a number of actions relating to targets, governance, carbon pricing, electricity, enterprise, built environment, transport, agriculture, waste, public sector, international action, citizen engagement, and adaptation.	The Regional Programme supports this plan through RSO 2.1 which promotes energy efficiency and reducing greenhouse gas emissions in the programme area. This objective also aims to reduce energy poverty which will increase resilience to climate change within the programme area.
DCCAE (2018) National Adaptation Framework: Planning for a Climate Resilient Ireland	This framework sets out a whole-of-government basis, what Ireland is doing and is planning to do to further their transition to a low-carbon, climate resilient and environmentally sustainable economy by 2050. The aim of adaptation is to reduce the vulnerability of our environment, society and economy and increase resilience. Adaptation also brings opportunity through green growth, innovation, jobs and ecosystem enhancement as well as improvements in areas such as water and air quality. Key actions under the framework: • Putting in place revised governance and reporting arrangements • Formalising the status of existing guidelines • Formalising long term operational support for key sectors • Facilitating the establishment of regional local authority climate action offices • Increasing awareness around climate adaptation and resilience • Integrating climate adaptation into key national plans and policies	The Regional Programme promotes energy efficiency and reducing greenhouse gas emissions in the programme area through of the Specific Objectives RSO 2.1. This objective also aims to reduce energy poverty which will increase resilience to climate change within the programme area.
DCCAE (2017) National Mitigation Plan	This plan represents an initial step on the pathway to achieve the level of decarbonisation required by the Paris Agreement and UN Sustainable Development Goals. The main strategic objectives for this plan are: • policy will contribute to reductions in Ireland's greenhouse gas emissions and enhancement of sinks in a manner that achieves the optimum benefits at least cost;	The Regional Programme promotes energy efficiency and reducing greenhouse gas emissions in the programme area through of the Specific Objectives RSO 2.1

Plan or Programme	Main objectives and environmental / socio-economic requirements of the Plan or Programme	How it affects, or is affected by the Regional Programme.
	• a stable and predictable policy and regulatory framework will be underpinned by rigorous analysis and appraisal, supported by strong research and analytical capacity; • the Government will pursue investment, innovation and enterprise opportunities towards building a competitive, low carbon, climate-resilient and environmentally sustainable economy; and • the citizen and communities will be at the centre of the transition.	
National Climate Change Adaptation Framework (2012)	The policy contained in this framework provides a strategy for the response to climate change in Ireland and is intended to evolve and adapt over time as planning and implementation progresses. The aim of this plan is to help people deal with disruptions from the impacts of climate change and help them reduce them; comprehend the changes necessary to improve their quality of life; and facilitate economic recovery from possible changes to climate patters and extreme events.	The Regional Programme promotes climate change mitigation measures in the programme area through the Policy Objective PO 2.
EC (2018) A Clean Planet for all: A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy	The aim of this long-term strategy is to confirm Europe's commitment to lead in global climate action and to present a vision that can lead to achieving net-zero greenhouse gas emissions by 2050 through a socially-fair transition in a cost-efficient manner. It is meant to set the direction of travel of EU climate and energy policy, and to frame what the EU considers as its long-term contribution to achieving the Paris Agreement temperature objectives in line with UN Sustainable Development Goals, which will further affect a wider set of EU policies. This strategy involves two main areas which are Transition to a net-zero greenhouse gas emissions economy; and Investing into a sustainable society.	The Regional Programme promotes energy efficiency and reducing greenhouse gas emissions in the programme area through of the Specific Objectives RSO 2.1.
EC (2014) A policy framework for climate and energy in the period from 2020 to 2030	Key Elements of the 2030 framework include: • Greenhouse gas emissions reduction target of 40% • A renewable energy target at EU level of at least 27% • Energy Efficiency increase of 25% in 2030 • Reform of the Emissions Trading System • Ensuring competition in integrated markets • Competitive and affordable energy for all consumers • Promoting security of energy supply	The Regional Programme promotes energy efficiency and reducing greenhouse gas emissions in the programme area through of the Specific Objectives RSO 2.1.
EPA National Waste Prevention Programme	The National Waste Prevention Programme (NWPP) is a Government of Ireland initiative, led by the EPA, which supports national-level, strategic programmes to prevent waste and drive the circular economy in Ireland.	It is not anticipated that the Regional Programme will directly influence waste but the EPA National Waste Prevention Programme should be considered when funding projects that may produce waste.
DAHG (2015) National landscape strategy for Ireland (2015-2025)	A key objective of this strategy is to implement the European Landscape Convention. It highlights the importance of cultural, social, economic and environmental values within Ireland's landscapes. It aims to both support living landscapes and enhance community identity by understanding, protecting,	The Regional Programme aims to support projects and initiatives tackling town centre regeneration, placemaking, vacancy and dereliction within RSO 5.1: Fostering the integrated and inclusive social, economic and environmental

Plan or Programme	Main objectives and environmental / socio-economic requirements of the Plan or Programme	How it affects, or is affected by the Regional Programme.
	managing by improving the quality of the landscape in decision making.	development, culture, natural heritage, sustainable tourism, and security in urban areas (ERDF).
DCCAE (2018) Sustainable Development Goals National Implementation Plan 2018 – 2020	This Plan aims to provide a framework for how Ireland will implement the Sustainable Development Goals from 2018-2020, to support national policies which contribute to meeting the Goals, and to facilitate multi-stakeholder participation. The strategic priorities are: • Awareness: Increase public awareness of the Sustainable Development Goals, their relevance to Ireland, and national efforts to achieve them. • Participation: Provide stakeholders with meaningful opportunities to contribute to national follow-up and review processes regarding the Goals, and with opportunities to further the development of the national implementation framework. • Support: Support and encourage communities and organisations to make their own contributions to achieving the Goals, and to foster public participation. • Policy Alignment: Support and promote policies and initiatives across government which contribute towards meeting the Goals at home and abroad and identify opportunities for enhancing policy coherence.	The Specific Objectives of the Regional Programme would contribute to meeting the Sustainable Development Goals. Including tackling energy poverty, building economic sustainability and addressing a range of social needs including education, training and job creation.
EU (2019) European Green Deal	The European Green Deal is a roadmap for sustainability in the EU with actions to boost efficient resources by moving to a clean, circular economy, restore biodiversity and cut pollution. Key elements of this include the Biodiversity Strategy to 2030, the Circular Economy Action Plan and the Farm to Fork Strategy.	The Regional Programme promotes energy efficiency and reducing greenhouse gas emissions in the programme area through of the Specific Objectives RSO 2.1.
EU Sustainable Development Strategy (2009)	A framework for a long-term vision on sustainability in which economic growth, social cohesion and environmental protection go hand in hand and are mutually supporting. European Union using this strategy has mainstreamed the objective of sustainable development into a broad range of policies.	The Regional Programme supports sustainable and integrated urban development through RSO 5.1: Fostering the integrated and inclusive social, economic and environmental development, culture, natural heritage, sustainable tourism, and security in urban areas (ERDF).
Do No Significant Harm (DNSH) Taxonomy	The Regulation establishing the Recovery and Resilience Facility (RRF) provides that no measure included in a Recovery and Resilience Plan (RRP) should lead to significant harm to environmental objectives within the meaning of Article 17 of the Taxonomy Regulation. The DNSH principle is based on the provisions of the "Taxonomy for Sustainable Finance" adopted to promote private sector investment in green and sustainable projects and help achieve the goals of the Green Deal.	In consultation with the European Commission, the programme will be designed in a manner that follows the Do No Significant Harm Principle under the six environmental objectives of the EU Taxonomy Regulation. A standalone DNSH assessment will be undertaken alongside the SEA Environmental Report.
Ireland's Long-Term Renovation Strategy. (2020)	This document sets out Ireland's Long-Term Renovation Strategy. In order to reduce emissions in line with national and international targets, Ireland's	The Regional Programme supports the Strategy through Specific Objective 2.1 which will work to improve the energy efficiency of

Plan or Programme	Main objectives and environmental / socio-economic requirements of the Plan or Programme	How it affects, or is affected by the Regional Programme.
	building stock will need to be highly energy efficient and largely decarbonised by 2050. This will require: 1. ensuring that new buildings are to at least a nearly zero-energy building (NZEB) standard, and 2. The retrofitting of the majority of existing buildings.	residential homes through delivering renovations free of charge to owner-occupied lower-income households who meet the defined eligibility criteria and who are vulnerable to energy poverty.

APPENDIX C: SCOPING CONSULTATION RESPONSES

Appendix C: Scoping Consultation Responses			
Comment ref.	**Page of letter**	**Comment**	**How has this been addressed?**
Organisation and/or contact: Department of Environment, Climate and Communications - Geological Survey Ireland (Clare Glanville)			
Date received: 11 April 2022			
1	1	With reference to your email received on the 22 March 2022, concerning the Southern, Eastern and Midland Regional Programme 2021-2027 under the European Regional Development Fund (ERDF), Geological Survey Ireland would encourage use of and reference to our datasets. This data can add to the content and robustness of the SEA process. With this in mind please find attached a list of our publicly available datasets that may be useful to the environmental assessment and planning process. We recommend that you review this list and refer to any datasets you consider relevant to your assessment. The remainder of this letter and following sections provide more detail on some of these datasets.	Dataset list reviewed. Noted - not applicable at this level of assessment, datasets to be taken into account once spacial details of projects flowing from the Regional Programme are known.
2	1 & 2	County Geological Sites (CGSs), as adopted under the National Heritage Plan, include additional sites that may also be of national importance, but which were not selected as the very best examples for NHA designation. All geological heritage sites identified by Geological Survey Ireland are categorised as CGS pending any further NHA designation by NPWS. CGSs are now routinely included in County Development Plans and in the GIS of planning departments, to ensure the recognition and appropriate protection of geological heritage within the planning system.CGSs can be viewed online under the Geological Heritage tab on the online Map Viewer. The geoheritage CGS reports and audits for counties within the Southern, Eastern and Midland Regional Programme can be found at: The Geological Heritage of Louth(published in 2013) The Geological Heritage of Meath(published in 2007) The Geological Heritage of Kildare(published in 2005) The Geological Heritage of Laois(published in2016) The Geological Heritage of Tipperary(published in2019) The Geological Heritage of Kilkenny(published in 2007) The Geological Heritage of Carlow(published in 2004) The Geological Heritage of Wicklow(published in 2014) The Geological Heritage of Wexford(published in 2019) The Geological Heritage of Waterford(published in 2012) The Geological Heritage of Clare(published in 2005) The Geological Heritage of Dublin City(published in2014) The Geological Heritage of Fingal(published in2007) The Geological Heritage of South Dublin(published in2014) The Geological Heritage of Dun Laoghaire-Rathdown(published in 2014) The audit for Co. Limerick is currently in draft form but will be published on our website by the end of April 2022. The audit for Co. Cork isa three year process that commenced in 2021, but has not been completed yet. We would hope that the delayed audit of The Geological Heritage of Kerry may be able to be funded by Kerry County Council and the Heritage Council in the near future. Unaudited CGSsfor these three counties can be viewed online under the Geological Heritage tab on the online Map Viewer.	Noted - to be taken into account once spacial details of projects flowing from the Regional Programme are known.

3	3	Geological Survey Ireland's Groundwater and Geothermal Unit, provides advice, data and maps relating to groundwater distribution, quality and use, which is especially relevant for safe and secure drinking water supplies and healthy ecosystems. Proposed developments need to consider any potential impact on specific groundwater abstractions and on groundwater resources in general. We recommend using the groundwater maps on our Map viewer which should include: wells; drinking water source protection areas; the national map suite - aquifer, groundwater vulnerability, groundwater recharge and subsoil permeability maps. For areas underlain by limestone, please refer to the karst specific data layers (karst features, tracer test database; turlough water levels (gwlevel.ie). Back ground information is also provided in the Groundwater Body Descriptions. Please read all disclaimers carefully when using Geological Survey Ireland data. GWClimate is a groundwater monitoring and modelling project that aims to investigate the impact of climate change on groundwater in Ireland. This is a follow on from a previous project (GWFlood) and the data may be useful in relation to Flood Risk Assessment (FRA) and management plans. Maps and data are available on the Map viewer. Geological Survey Ireland has completed Groundwater Protection Schemes (GWPSs) in partnership with Local Authorities, and there is now national coverage of GWPS mapping. A Groundwater Protection Scheme provides guidelines for the planning and licensing authorities in carrying out their functions, and a framework to assist in decision-making on the location, nature and control of developments and activities in order to protect groundwater. The Groundwater Protection Response overview and link to the main reports is here: https://www.gsi.ie/en-ie/programmes-and-projects/groundwater/projects/protecting-drinking-water/what-is-drinking-water-protection/county-groundwater-protection-schemes/Pages/default.aspx	Noted - Proposed developments unknown at this stage.
4	3	Culture and Tourism Over the past number of years geology has become a large part of Irish tourism. Ireland currently has three UNESCO Global Geoparks, and a number of other geotourism projects. The Cuilcagh Lakelands UNESCO Global Geoparkin Fermanagh and Cavanseek to promote geotourismin these counties. These Geoparks, along with other tourism initiatives such as the Wild Atlantic Way, Irelands Ancient East, and Irelands Hidden Heartlands have bolstered tourism in various parts of Ireland and helped to increase its levels in areas that were previously not as popular with tourists. We would encourage the Southern, Eastern and Midland Regional Programme to continue this trend, and to use the geological audit information making it easily available to the general public. We would encourage geology to be a significant part of any tourism initiative that may be introduced.	Managing authority to address.

5	3	Geological Survey Ireland maintains online datasets of bedrock and subsoils geological mapping that are reliable and accessible. We would encourage you to use these data which can be found here, in your future assessments. Our 3D models can help stakeholders visualize, understand and characterise geology, for deposit and resource mapping, for flooding and for urban geology applications including basement impact assessment, Sustainable Drainage Systems (SuDS), and subsurface management. Our 3D models offer a key element of geotechnical risk management by identifying areas requiring further site investigation. Link provided: https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbde2aaac3c228	Noted - dataset has been reviewed. Not applicable at this level of assessment.
6	4	GEOTHERMAL ENERGY Geothermal energy harnesses the heat beneath the surface of the Earth for heating applications and electricity generation, and has proven to be secure, environmentally sustainable and cost effective over long time periods. Geothermal applications can range in depth from a few metres below the surface to several kilometres. Ireland has widespread shallow geothermal resources for small and medium-scale heating applications, which can be explored online through Geological Survey Ireland's Geothermal Suitability maps for both domestic and commercial use. We recommend use of our Geothermal Suitability maps to determine the most suitable type of ground source heat collector for use with heat pump technologies. Ireland also has recognised potential for deep geothermal resources.	Noted - dataset has been reviewed. Not applicable at this level of assessment, datasets to be taken into account once spacial details of projects flowing from the Regional Programme are known.
7	4	We would recommend use of the Aggregate Potential Mapping viewer to identify areas of High to Very High source aggregate potential within the area. In keeping with a sustainable approach we would recommend use of our data and mapping viewers to identify and ensure that natural resources used in any proposed developments are sustainably sourced from properly recognised and licensed facilities, and that consideration of future resource sterilization is considered.	Noted - dataset has been reviewed. Not applicable at this level of assessment, datasets to be taken into account once spacial details of projects flowing from the Regional Programme are known.
8	5	INFOMAR also produces a wide variety of seabed mapping products that enable public and stakeholders to visualize Ireland's seafloor environment https://www.infomar.ie/maps/downloadable-maps/maps. Story maps have also been developed providing a different perspective of some of the bays and harbours of the Irish coastline. We would therefore recommend use of our Marine and Coastal Unit datasets available on our website and Map Viewer.	Noted - dataset has been reviewed. Not applicable at this level of assessment, datasets to be taken into account once spacial details of projects flowing from the Regional Programme are known.
Organisation and/or contact: EPA			
Date received: 15th April 2022			
9	1	The Executive Summary of Ireland's Environment - An Assessment-2020 and Chapter 16- Conclusions, sets out the "Key Environmental Messages for Ireland" that should be considered in preparing the Programme and the associated SEA Environmental Report.	Noted key environmental messages for Ireland in section 4.4 of the ER.

10	1	Some key relevant plans and programmes in Ireland, at national and regional level to consider include the National Planning Framework, Regional Spatial and Economic Strategies, Climate Action Plan 2021, Grid 25 Implementation Plan, National River Basin Management Plan for Ireland, National Policy Framework on Alternative Fuels Infrastructure for Transport, National Adaptation Framework, National Marine Planning Framework, Offshore Renewable Energy Development Plan, Renewable Electricity Policy and Development Framework, National Catchment Flood Risk Assessment and Management Studies.	P&P relevant to the SEA for the Regional Programme have been reviewed and included.
11	1	Options for additional transboundary-related infrastructure / activity should have environmental sustainability as a key consideration. Additionally, transboundary consultation on the Plan and SEA should take account of the SEA Protocol consultation requirements.	Transboundary consultations w/ northern Ireland included in SEA process.
12	1	Transition to a low carbon climate resilient economy and society You should ensure that the Programme aligns with national commitments on climate change mitigation and adaptation, such as those included in the Climate Action Plan 2021, as well as any relevant sectoral, regional and local adaptation plans.	Managing authority to address.
13	2	**Scope of the SEA** The Programme should clearly set out the scope, remit and implementation related elements of the Programme. These will have implications for the SEA, in terms of guiding the level of assessment applicable at the appropriate level for the Programme. Where it is envisaged that measures proposed in the Programme will be implemented via other plans, which themselves have been or will be subject to SEA, this should be explained in the Environmental Report and taken into account in the assessment.	A Mitigation and Monitoring section is include in the SEA ER and Appendix E.
14	2	**Scope of the SEA** Where specific measures will be implemented directly, further detail should be provided in the Environmental Report and Programme on the relevant environmental assessments to be carried out at the project stage and relevant mitigation measures to be applied, as appropriate. There may be merit in exploring this issue further with the relevant Environmental Authorities during the Programme-preparation and SEA processes	A Mitigation and Monitoring section is include in the SEA ER and Appendix E.
15	3	**Integration of SEA and Programme** All recommendations from the SEA and AA processes, including mitigation measures, should be integrated in the Programme. We recommend that the Programme includes summary tables outlining the key findings of the SEA and linking the significant environmental effects identified to the proposed mitigation measures, monitoring programme and Programme policies/measures.	Noted - Programme to integrate mitigation measures

16	3	**Monitoring, Review & Reporting** The Programme should include a commitment to implement the environmental monitoring programme and associated reporting. We suggest including a separate section on 'Monitoring, Review and Reporting' in the Programme, setting out the provisions for monitoring and reporting on the implementation of the Programme and periodic reviews. There may be merits in aligning the periodic reviews of the Programme with existing cyclical reporting e.g. Ireland's Environment, National Planning Framework, Water Framework Directive, Marine Strategy Framework Directive etc. In between review periods for the Programme we recommend that Programme -related implementation reports are published annually, or biennially, as appropriate. We recommend aligning the Programme implementation monitoring/reporting with the environmental monitoring required under the SEA legislation. Doing so would enable the environmental performance of the Programme to be evaluated and would also provide for increased transparency during implementation. The SEA-related monitoring should address positive, negative and cumulative effects where they are likely to occur and should include provision for on-going review to facilitate an early response to any environmental issues that may arise. The Environmental Report should specify the monitoring frequency and responsibilities and include provisions for reporting on the monitoring. To avoid duplication in data collection, the same indicators should be used for the Programme -related and SEA related monitoring where possible.	Addressed in monitoring section of the ER and Appendix E.
17	3	**Data & Knowledge Gaps.** The Programme should identify any significant data and knowledge gaps, include commitments to help address these on a priority basis during the implementation phase of the Programme. This is with a view to strengthening the evidence base for future reviews and iterations of the Programme	Noted - Programme to identify data and knowledge gaps.
18	3	**Integration with other key Plans and Programmes.** We recommend including schematics in the Programme and SEA Environmental Report, showing the links and key inter-relationships with other key relevant national, regional, sectoral and environmental plans.	Noted interrelationships have been explained in ER and the plans and programmes assessment in Appendix B.
Organisation and/or contact: DAERA NIEA			
Date received: 21st April 2022			
19	1	DAERA would like the SEA Environmental Report to contain a clear statement indicating the opinion about whether or not the implementation of the of the strategy is likely to have a significant effect on Northern Ireland, in combination with any identified measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment	Transboundary considerations addressed in section 6.6 of the ER.
20	1	We would highlight consideration of the following issues including the potential disturbance to/impact on NI/RoI migratory/mobile species such as salmon, for example within the Lough Melvin Special Area of Conservation which lies within both Northern Ireland and the Republic of Ireland. Cross border designated sites, European sites in Northern Ireland adjacent to or with pathways to/from the Republic of Ireland, priority habitats, river basins, and other landscape types also require special attention as ecological functionality and 'views' of landscape cross political boundaries. The SEA should consider all potential impacts including those which may impact Northern Ireland both directly and indirectly. We welcome the recognition of ecological connectivity	Transboundary effects with northern Ireland included throughout ER.

21	2	NED are content with the overall approach to SEA and the issues that will be addressed including the consideration of how Environmental impacts will be addressed and mitigated, this should include potential impacts on NI. NED are in agreement and welcome the completion of a Habitats Regulations Assessment in parallel to the SEA. We welcome that the AA will also include assessment of potential significant effects on sites in NI where they fall within the 15km zone of influence.	Noted.
22	2	It may be worth including in your considerations the following: The Strategic Planning Policy Statement (SPPS) for Northern Ireland Planning Policy Statements (PPS – in particular PPS2 and PPS18). It should be noted that the PPS's will be superseded by Local Development Plans when they are adopted. Biodiversity Strategy for NI to 2020 https://www.daera-ni.gov.uk/publications/biodiversity strategy-northern-ireland-2020-0 Draft Environment Strategy https://www.daera-ni.gov.uk/consultations/esni-public discussion-document The Draft NI peatland policy: https://www.daera-ni.gov.uk/consultations/ni-peatland strategy-consultation The Draft Green Growth Strategy Consultation on the draft Green Growth Strategy for Northern Ireland | Department of Agriculture, Environment and Rural Affairs (daera ni.gov.uk) Northern Ireland Energy Strategy 2050 Northern Ireland Energy Strategy 2050 | Department for the Economy (economy-ni.gov.uk)	P&P relevant to the SEA and Regional Programme have been reviewed and included.
23	3	A number of useful information sources that highlight the current state of the environment in Northern Ireland at a regional level and which could be referenced are: Northern Ireland State of the Environment Reports: https://www.daera ni.gov.uk/publications/state-environment-report-2013 Northern Ireland Environmental Statistics Reports: https://www.daera ni.gov.uk/articles/northern-ireland-environmental-statistics-report Other relevant web-links are; Designated Scientific Sites: www.daera-ni.gov.uk/landing-pages/protected-areas Regional Landscape Character Map viewer: https://www.daera ni.gov.uk/services/regional-landscape-character-areas-map-viewer DAERA have a map browser for NI protected sites and known priority habitat: www.daera-ni.gov.uk/services/natural-environment-map-viewer Our natural environment datasets are available at the link below: www.daera-ni.gov.uk/articles/download-digital-datasets Appropriate Assessments should refer to the status of habitats and species in the relevant reports available on the JNCC website as follows: UK Article 17 report for the Habitats Directive https://jncc.gov.uk/our-work/article-17-habitats-directive-report-2019/ and the UK Article 12 report for the Birds Directive https://jncc.gov.uk/our work/European-reporting/#birds-directive-reporting Please note following the decision of the United Kingdom to leave the European Union, the collective term of "Natura 2000" sites the network of European protected sites are now known as "National Site Network" sites within the United Kingdom, and is including Northern Ireland.	Noted and considered.
24	3	Please note following the decision of the United Kingdom to leave the European Union, the collective term of "Natura 2000" sites the network of European protected sites are now known as "National Site Network" sites within the United Kingdom, and is including Northern Ireland.	Noted.

25	3	**Climate Change Unit comments** Climate Change Mitigation Branch refers the Southern Regional Assembly to the requirements laid out within the UK Climate Change Committee's Sixth Carbon Budget publication. A link for this can be found below.https://www.theccc.org.uk/publication/sixth-carbon-budget/ The UK Climate Change Committee (CCC) recently published its UK Climate Risk Independent Assessment 2021 which identifies the risk and opportunities posed by climate change over the next five years. A summary for Northern Ireland can be found below.	The Northern Ireland section of the UK Climate Risk Independent Assessment 2021 has been reviewed.
26	4	Drinking Water Inspectorate Comments Thank you for consulting with the DWI on the ERDF Northern and Western Regional programme 2021-2027 SEA scoping report. Given the insignificant effects to transboundary areas, it is a nil response form us	Noted - no transboundary effects on drinking water.
27	4	Water Management Unit Comments Whilst noting that no significant transboundary effects are anticipated the Competent Authority should ensure that any potential transboundary effects relating to the aquatic environment have been adequately assessed.	Considered transboundary effects on aquatic env in Section 6.6 of the ER.
Organisation and/or contact: Department of Agriculture, Food and the Marine regarding commercial fisheries			
Date received: 21 April 2022			
28	1	It is important to include commercial stocks as a material asset in the assessments. Commercial sea fishing is a long standing, pre-existing and traditional activity in the marine environment. It is essential that any negative impacts on fisheries are avoided. The evaluation of potential impacts on any commercial sea fishing activities needs to be given consideration as part of any planning/proposal process and during the development process itself. It is imperative that engagement should be sought with the fishing industry and other relevant stakeholders at as early a stage as possible to discuss any changes that may affect them to afford a chance for their input. Fishers' interests and livelihoods must be fully recognised, supported, and taken into account.	Fish stocks added to material assets in table 3.2 of the ER.
Organisation and/or contact: Rory Coleman on behalf of Environmental Protection Division (a division of the Department of Environment, Climate and Communications).			
Date received: Friday 8 April 2022			
29	1	In respect of waste in the within documentation, we would be obliged if the Local Authority would consult directly with their respective Regional Waste Management Planning Office regarding development of the final plans.	To be addressed when projects under the Regional Programme are selected.
Organisation and/or contact: DAERA and Historic Environment Division (HED)			
Date received: Friday 8 April 2022			
30	1	HED has reviewed the scoping report and considers the programme objectives have the potential to bring positive effects for the historic environment, through sympathetic retrofitting and reuse of historic buildings, and also through tackling dereliction and vacancy in the identified towns through regeneration and place-making plans & proposals.	Note positive impacts of policy on historic environment noted in 6.6.2 of the ER.
30	1	Upon review, we consider the programme has limited scope for transboundary cultural heritage impacts. We would however note that local councils in Northern Ireland are in the process of undertaking their local development plans. Engagement, particularly with those councils along the border region is therefore encouraged, so that current programmes in neighbouring counties can be taken into account in their plans and to enable mutual sharing of lessons learned from pilot projects to inform future approaches for positive town centre regeneration.	The limited scope for transboundary effects has been noted. Assembly to engage with LA.

APPENDIX D: ASSESSMENT OF ALTERNATIVES MATRICES

Alternative 1 High Level Matrix			SEA OBJECTIVES										
			1	2	3	4	5	6	7	8	9	10	11
Policy Objectives and Specific Objectives		ERDF as % of Total non-TA ERDF Available	Ecology & Nature Conservation	Health & Quality of Life	Population and Socio-economics	Soil & Land Use	Water	Air Quality	Climate	Material Assets	Historic Environment	Landscape	Natural Capital
Policy Objective 1: Developing Smarter More Competitive Regions.													
RSO 1.1	Developing and enhancing research and innovation capacities and the uptake of advanced technologies (ERDF) - Capacity building within both Higher Education Institutes (HEI's) and our new Technological University (TU) - Accelerating the translation of cutting-edge research into commercial applications at a regional level - Supporting innovation diffusion, enterprise innovation and entrepreneurship in the regions.	56%	0	+	++	0	0	0	0	0	0	0	0
RSO 1.3	Enhancing sustainable growth and competitiveness of SMEs and job creation in SMEs, including by productive investments (ERDF) - Strengthening and developing functional regional ecosystems that support innovation diffusion, enterprise innovation and entrepreneurship in the regions.		0	+	++	0	0	0	0	0	0	0	0
Policy Objective 2: Developing Low-Carbon Energy Efficient Regions.													
RSO 2.1	Promoting energy efficiency and reducing greenhouse gas emissions (ERDF). - Improving the energy efficiency of residential homes for those at risk of energy poverty.	30%	0	++	+	0	0	0	+	+/-	+/-	0	0
Policy Objective 5: Sustainable and Integrated Urban Development.													
RSO 5.1	Supporting an integrated strategic approach to the regeneration of our towns.	14%	+/-	++	++	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-

Key for Likely Effects	
++	Likely strong beneficial effect
+	Likely beneficial effect
0	Neutral / no effect
-	Likely adverse effect
- -	Likely strong adverse effect
+/-	Uncertain effect

Alternative 2 High Level Matrix			SEA OBJECTIVES										
			1	2	3	4	5	6	7	8	9	10	11
Policy Objectives and Specific Objectives		ERDF as % of Total non-TA ERDF Available	Ecology & Nature Conservation	Health & Quality of Life	Population and Socio-economics	Soil & Land Use	Water	Air Quality	Climate	Material Assets	Historic Environment	Landscape	Natural Capital
Policy Objective 1: Developing Smarter More Competitive													
RSO 1.1	Developing and enhancing research and innovation capacities and the uptake of advanced technologies (ERDF) - Capacity building within both Higher Education Institutes (HEI's) and our new Technological University (TU) - Accelerating the translation of cutting-edge research into commercial applications at a regional level - Supporting innovation diffusion, enterprise innovation and entrepreneurship in the regions.	56%	0	+	++	0	0	0	0	0	0	0	0
RSO 1.2	Enhancing sustainable growth and competitiveness of SMEs and job creation in SMEs, including by productive investments (ERDF) - Strengthening and developing functional regional ecosystems that support innovation diffusion, enterprise innovation and entrepreneurship in the regions.		0	+	++	0	0	0	0	0	0	0	0
Policy Objective 2: Developing Low-Carbon Energy Efficient Regions.													
RSO 2.1	Promoting energy efficiency and reducing greenhouse gas emissions (ERDF). - Retrofitting and improving the energy efficiency of **public sector buildings**	30%	0	+	+	0	0	0	+	+/-	+/-	+/-	0
Policy Objective 5: Sustainable and Integrated Urban Development.													
RSO 5.1	Supporting an integrated strategic approach to the regeneration of our towns	14%	+/-	++	++	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-

Key for Likely Effects	
++	Likely strong beneficial effect
+	Likely beneficial effect
0	Neutral / no effect
-	Likely adverse effect
- -	Likely strong adverse effect
+/-	Uncertain effect

Alternative 3 High Level Matrix			SEA OBJECTIVES										
			1	2	3	4	5	6	7	8	9	10	11
Policy Objectives and Specific Objectives		ERDF as % of Total non-TA ERDF Available	Ecology & Nature Conservation	Health & Quality of Life	Population and Socio-economics	Soil & Land Use	Water	Air Quality	Climate	Material Assets	Historic Environment	Landscape	Natural Capital
Policy Objective 1: A More Competitive and Smarter Europe by promoting innovative and smart economic transformation and regional ICT connectivity.													
RSO 1.1	Developing and enhancing research and innovation capacities and the uptake of advanced technologies (ERDF) - Capacity building within both Higher Education Institutes (HEI's) and our new Technological University (TU) - Accelerating the translation of cutting-edge research into commercial applications at a regional level - Supporting innovation diffusion, enterprise innovation and entrepreneurship in the regions.	**62%**	0	+	++	0	0	0	0	0	0	0	0
RSO 1.3	Enhancing sustainable growth and competitiveness of SMEs and job creation in SMEs, including by productive investments (ERDF) - Strengthening and developing functional regional ecosystems that support innovation diffusion, enterprise innovation and entrepreneurship in the regions.		0	+	++	0	0	0	0	0	0	0	0
Policy Objective 2: A Greener, Low- Carbon Transitioning Towards A Net Zero Carbon Economy And Resilient Europe by promoting clean and fair energy transition, green and blue investment, the circular economy, climate													
RSO 2.1	Promoting energy efficiency and reducing greenhouse gas emissions (ERDF). - Improving the energy efficiency of residential homes for those at risk of energy poverty.	30%	0	++	+	0	0	0	+	+/-	+/-	0	0
Policy Objective 3: A More Connected Europe by enhancing mobility													
RSO 5.1	Supporting an integrated strategic approach to the regeneration of our towns	**8%**	+/-	+	+	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-

Key for Likely Effects	
++	Likely strong beneficial effect
+	Likely beneficial effect
0	Neutral / no effect
-	Likely adverse effect
- -	Likely strong adverse effect
+/-	Uncertain effect

APPENDIX E: MITIGATION AND MONITORING

SEA Objectives.	Potential adverse environmental effects of implementing the Regional Programme.	Recommended mitigation measures for inclusion of the Regional Programme.	Possible monitoring measures for undertaking by relevant managing authority.
Ecology and Nature Conservation	The construction works associated with town centre regeneration have the potential for adverse effects on species and habitats due to possible habitat loss or fragmentation, disturbance. Brownfield biodiversity is a particular concern for works in urban areas. However, it is expected that some of these will be addressed through individual planning applications (and EIA and/or AA screening if appropriate).	For construction activities under PO5, the presence of protected species, e.g. bats, birds etc. should be considered, and roosting or breeding seasons avoided. Measures such as buffer zones at the edge of developments, noise mitigation, visual screening (natural and artificial) and reducing access to sensitive habitats could be incorporated into scheme designs. Consent from the appropriate consenting authority may be required for certain works where protected species may be affected. When works are being carried out, avoidance of breeding seasons and other sensitive times for particular species that may be affected at local level is likely to be necessary. Any removal of vegetation such as hedges should be preceded by an ecological survey. Where invasive species are present, equipment should be cleaned to help prevent these species from spreading.	**Monitor the number of projects under PO5 that include blue and green infrastructure. (Managing authority, ongoing)** **Monitor the number of town centre regeneration projects taking place under the Regional Programme and their environmental outcomes. (Managing authority, ongoing)** In relation to the above and any other type of project under the Regional Programme, as and when more detail is available regarding the exact location, the following monitoring suggestions may be considered for managing authorities on an ongoing basis, in particular: - Spatial extent of development under the Regional Programme and previous land use. - Whether ecological mitigation is proposed and carried out. - Habitat and species conservation status pre/post development (especially for any protected/designated site). - Biodiversity net gain.
Health and Quality of Life	No adverse effects are anticipated	N/A	N/A
Population and Socio-economic	No adverse effects are anticipated	N/A	N/A
Soil and Land Use	No adverse effects are anticipated	N/A	N/A
Water	The construction works associated with PO5 may adversely impact on water quality (e.g. from chemical and fuel spillages, dust etc.) and flood risk (e.g. additional storm flows and run-off	Ensure town centre regeneration projects retain existing buildings where possible and prevent loss of permeable surfaces. For construction works such as new buildings standard best practice construction methods	**Monitor the number of projects under PO5 that include blue and green infrastructure. (Managing authority, ongoing)**

	resulting from an increase in impermeable surfaces).	should be followed to ensure that land, water and air pollution does not occur, or is reduced to minimal levels. Construction Environmental Management Plans (CEMP) should be produced to help ensure impacts on humans and the environment are minimised.	**Monitor the number of town centre regeneration projects taking place under the Regional Programme and their environmental outcomes. (Managing authority, ongoing)** In relation to the above and any other type of project under the Regional Programme, as and when more detail is available regarding the exact location, the following monitoring suggestions may be considered for managing authorities on an ongoing basis, in particular: - Whether water quality mitigation is proposed and carried out. - Area of permeable surface pre/post development. **Monitor the number of SMEs supported in the environmental services sector. (Managing authority, ongoing)** In relation to the above, an indicator which could be measured would be the proportion of SMEs receiving funding through the Regional Programme that incorporate water efficiency measures.
Air Quality	No adverse effects are anticipated	N/A	N/A
Climate Change	No adverse effects are anticipated	N/A	N/A
Material Assets	The retrofitting and construction works associated with PO2 and PO5 would generate a considerable amount of waste and may have a high demand for resources.	Where possible, locally sourced materials should be recommended, and reuse and or recycling encouraged. (PO2 and PO5). Construction Environmental Management Plans (CEMP) should be produced to help ensure impacts on humans and the environment are minimised.	**Monitor the level of energy demand in retrofitted housing. (Managing authority, ongoing)** **Monitor the number of town centre regeneration projects taking place under the Regional Programme and their environmental outcomes. (Managing authority, ongoing)** In relation to the above and any other type of project under the Regional Programme, as and when more detail is available regarding the exact

			location, the following monitoring suggestions may be considered for managing authorities on an ongoing basis, in particular: - The proportion of new or renovated buildings arising from the Regional Programme that use local, sustainable or recycled materials. - The proportion of municipal waste arising from the Regional Programme related developments that is recycled, re-used or disposed of (e.g. to landfill).
Historic Environment	No adverse effects are anticipated	N/A	N/A
Landscape	No adverse effects are anticipated	N/A	N/A
Natural Capital	Minor/ negligible adverse effects are predicted on this SEA objective as a result of minor adverse effects on ecology and nature conservation, water and material assets. In addition, the programme does not directly encourage multifunctionality of greenspace to enhance human health and quality of life, water, soil, air quality, climate regulation and biodiversity. The programme does not aim to enhance the understanding and connection to the natural world.	Town centre regeneration should include provision of walking and cycling routes and other opportunities for outdoor recreation such as green gyms, play areas or allotments to enhance health and wellbeing. (PO5) Environmental enhancement should be encouraged for all physical regeneration projects for urban areas using nature based solutions (NbS), sustainable urban drainage systems (SuDs) and biodiversity net gain (BNG) where possible.	**Monitor the number of projects under PO5 that include blue and green infrastructure. (Managing authority, ongoing)** **Monitor the number of town centre regeneration projects taking place under the Regional Programme and their environmental outcomes. (Managing authority, ongoing)** In relation to the above and any other type of project under the Regional Programme, as and when more detail is available regarding the exact location, the following monitoring suggestions may be considered for managing authorities on an ongoing basis, in particular: - Levels of provision of green space, SuDS, and street trees. - Biodiversity net gain. - Provision of accessible outdoor recreation facilities pre/post development.

APPENDIX E: MITIGATION AND MONITORING

SEA Objective	Potential beneficial environmental effects of implementing the Regional Programme	Recommended enhancement measures for inclusion of the Regional Programme	Possible monitoring measures for undertaking by relevant Government Departments or organisations
Ecology and Nature Conservation	No beneficial effects anticipated.	There is opportunity to direct funding towards environmental improvements, including simple measures such as erection of bird and bat boxes and other ecological measures, to the more ambitious such as creation of new green space that includes vital habitats, for instance pocket parks and urban wildlife gardens.	N/A
Health and Quality of Life	There will be significant benefits in the health and quality of life PO2 and PO5 as people will have warmer more energy efficient homes and safer, cleaner more attractive places to live.	Town centre regeneration should include provision of walking and cycling routes and other opportunities for outdoor recreation such as green gyms, play areas or allotments to enhance health and wellbeing. (PO5)	**Monitor the number of town centre regeneration projects taking place under the Regional Programme and their environmental outcomes. (Managing authority, ongoing)** In relation to the above and any other type of project under the Regional Programme, as and when more detail is available regarding the exact location, the following monitoring suggestions may be considered for managing authorities on an ongoing basis, in particular: - Provision of accessible outdoor recreation facilities pre/post development. - Provision of access for disabled users. - Provision of sustainable transport links that encourage physical activity or time spent outdoors.
Population and Socio-economic	There will be significant benefits for the economy from funding of research, enterprise growth. Town centre regeneration will also boost socio-economic activity and possibly inward investment, whilst people will benefit from warmer and more energy efficient homes.		**Monitor the number of town centre regeneration projects taking place under the Regional Programme and their environmental outcomes. (Managing authority, ongoing)** In relation to the above and any other type of project under the Regional Programme, as and when more detail is available regarding the exact

			location, the following monitoring suggestions may be considered for managing authorities on an ongoing basis, in particular: - The number of new businesses registered to an area. - The number of vacant business units before and after town centre regeneration. - Provision of accessible outdoor recreation facilities pre/post development. - Increases in visitor numbers to an area.
Soil and Land Use	The restoration and use of vacant and derelict buildings through PO5 will be beneficial to soil and land use by reducing the need for new development.	Town centre regeneration should include provision of green spaces and SuDS to reduce soil sealing and enhance drainage where possible.	**Monitor the number of projects under PO5 that include blue and green infrastructure. (Managing authority, ongoing)** **Monitor the number of town centre regeneration projects taking place under the Regional Programme and their environmental outcomes. (Managing authority, ongoing)** In relation to the above and any other type of project under the Regional Programme, as and when more detail is available regarding the exact location, the following monitoring suggestions may be considered for managing authorities on an ongoing basis, in particular: - Overall provision of green space and SuDS pre/post development. - Permeable surfaces pre/post development. - Total area of newly developed land. - Number of vacant and derelict buildings brought into use.
Water	No beneficial effects anticipated	N/A	N/A
Air Quality	Neutral effects anticipated	N/A	N/A

Climate Change	Improving the energy efficiency of housing will reduce GHG emissions in the domestic power provision sector.	Walking and cycling should be facilitated as part of regeneration proposals, to reduce GHG emissions from transport. Environmental enhancement should be encouraged for all physical regeneration projects for urban areas, particularly measures to help adaptation to climate change impacts such as green spaces, SuDS and street trees.	**Monitor the number of town centre regeneration projects taking place under the Regional Programme and their environmental outcomes. (Managing authority, ongoing)** In relation to the above and any other type of project under the Regional Programme, as and when more detail is available regarding the exact location the following monitoring suggestions may be considered for managing authorities on an ongoing basis, in particular: - Levels of provision of green space, SuDS, and street trees - Provision of sustainable transport links **Monitor the level of energy demand in retrofitted housing (Managing authority, ongoing)** In relation to the above, a further indicator which could be measured would be the proportion of new or renovated buildings arising from the Regional Programme that incorporate energy efficiency and adaptation measures (e.g. insulation, sustainable drainage, shading from trees etc.) **Monitor the number of SMEs supported in the environmental services sector (Managing authority, ongoing)** In relation to the above, an indicator which could be measured would be the proportion of SMEs funded through the Regional Programme that - Facilitate/promote sustainable transport. - Undertake energy efficiency measures. - Have net zero targets.

Material Assets	Improving the energy efficiency of housing will reduce GHG emissions and energy retrofits will move more residential homes away from fossil fuels.		**Monitor the level of energy demand in retrofitted housing. (Managing authority, ongoing)** **Monitor the number of town centre regeneration projects taking place under the Regional Programme and their environmental outcomes. (Managing authority, ongoing)** In relation to the above and any other type of project under the Regional Programme, as and when more detail is available regarding the exact location, the following monitoring suggestions may be considered for managing authorities on an ongoing basis, in particular: - The proportion of new or renovated buildings arising from the Regional Programme that use local, sustainable or recycled materials **Monitor the number of SMEs supported in the environmental services sector (Managing authority, ongoing)** In relation to the above, an indicator which could be measured would be the re-use and recovery rates of products or materials used by SMEs funded through the Regional Programme.
Historic Environment	Town centre regeneration and placemaking under PO5 will enhance the built environment and public realm in which cultural heritage assets are sited.		**Monitor the number of town centre regeneration projects taking place under the Regional Programme and their environmental outcomes. (Managing authority, ongoing)** In relation to the above and any other type of project under the Regional Programme, as and when more detail is available regarding the exact location, the following monitoring suggestions may be considered for managing authorities on an ongoing basis, in particular:

			- The proportion of vacant buildings in areas subject to Regional Programme related regeneration projects. - The number of town centre regeneration projects that enhance heritage assets or their setting.
Landscape	Town centre regeneration under PO5 will enhance the built environment through placemaking and reduce the number of derelict buildings which will enhance the urban townscape and further landscape.	Environmental enhancement should be encouraged for all physical regeneration projects for urban areas.	**Monitor the number of town centre regeneration projects taking place under the Regional Programme and their environmental outcomes. (Managing authority, ongoing)** In relation to the above and any other type of project under the Regional Programme, as and when more detail is available regarding the exact location, the following monitoring suggestions may be considered for managing authorities on an ongoing basis, in particular - The proportion of derelict and vacant buildings brought into use - Levels of provision of green space, SuDS, and street trees -
Natural Capital	No beneficial effects anticipated	N/A	N/A