



Special EU Programmes Board (SEUPB)

Strategic Environmental Assessment (SEA) Environmental Report

PEACE PLUS Programme 2021-2027

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1 INTRODUCTION

1.1 Purpose of this Report

- 1.1.1 RSK has been instructed by the Special EU Programmes Body (SEUPB) to carry out a Strategic Environmental Assessment (SEA) of the PEACE PLUS Programme 2021 - 2027. PEACE PLUS is a new cross-border EU funding programme supporting peace and reconciliation and economic and social development in Northern Ireland and the border counties of Ireland. It will build on and replace the predecessor programmes of the 2014-2020 PEACE IV and INTERREG VA.
- 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 SEUPB, 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 The requirements of the SEA Directive are transposed into Northern Irish domestic law through the Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004 (SR 280/2004). Hereafter referred to as ‘the Northern Ireland Regulations’.
- 1.1.5 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 Ireland Regulations’.
- 1.1.6 Also of relevance is the Environmental Assessment of Plans and Programmes Regulations 2004 (SI 1633/2004) (the UK Regulations).
- 1.1.7 The purpose of this report is to evaluate the likely environmental effects of implementing the PEACE PLUS Programme as per the requirements of the Directive and 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 strategy.
- 1.1.8 This report has been issued to the statutory consultation bodies by SEUPB, 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 PEACE PLUS Programme. More detail on the consultation period is available in Chapter 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 PEACE PLUS Programme – Section 2;
- SEA Objectives and assessment methodology – Section 3;
- Summary of scoping consultation responses – Section 4.1 and Appendix A;
- Relationship with other plans, programmes and conservation objectives – Sections 4.3 and 6.4 and Appendix B;
- Relevant aspects of the current state of the environment – Section 4.3 and Appendix C;
- Existing environmental problems and the likely evolution of the environment without the PEACE PLUS Programme– Section 4.4;
- Consideration of alternatives – Section 6 and Appendix D;
- Identification and assessment of likely significant effects on the environment – Section 7;
- Mitigation and enhancement measures – Section 8; and
- Proposed monitoring programme – Section 9.

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

2 THE PEACE PLUS PROGRAMME

2.1 Background and General Principles

- 2.1.1 The cohesion policy (or regional policy) of the European Union 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.
- 2.1.2 As a North-South Implementation Body SEUPB is sponsored by the Department of Finance (DOF) in Northern Ireland and the Department of Public Expenditure and Reform (DPER) in Ireland. SEUPB has a statutory role in the management of EU funding programmes in the programme area, and in relation to the European Union’s 2014-2020 programming period, the relevant Programmes are the following European Territorial Cooperation (ETC) Programmes: PEACE IV in Northern Ireland and the border counties of Ireland (Cavan, Donegal, Leitrim, Louth, Monaghan and Sligo) and the INTERREG VA Programme which includes the same area plus the west of Scotland.
- 2.1.3 For the next programme period of 2021 to 2027, SEUPB is developing a single successor programme, known as PEACE PLUS. ‘PLUS’ represents the inclusion of wider economic, social and environmental activities within the scope of the Programme.
- 2.1.4 SEUPB has the statutory responsibility to advise the Member States on the development of the PEACE PLUS Programme (DOF in Northern Ireland and the DPER in Ireland). Therefore SEUPB has commenced programme development work on the future cross-border programme between Northern Ireland and the border counties of Ireland (PEACE PLUS).
- 2.1.5 The PEACE PLUS programme will build on both predecessor programmes. Provision has been made for a budget of approximately €1bn, including proposals from the EU budget, the Government of Ireland, the Northern Ireland Executive and the U.K. Government. The new PEACE PLUS Programme will be implemented in 2021.

2.2 Environmental Outputs of Previous Programmes

- 2.2.1 The INTERREG VA programme funded projects that aimed to reduce car usage and encouraged more sustainable transport methods such as public transport, cycling and walking. Key projects under construction include three cross-border greenways. The Ulster Canal Greenway extends the Monaghan Town Greenway by 22 km bringing the old towpaths of the disused Ulster Canal back into use.
- 2.2.2 Additionally, the INTERREG VA programme aided in the development and expansion of a cross-border electric vehicle charging network. This added 73 charging stations to the existing TEN-T rapid charger network. PEACE PLUS now aims to improve cross-border rail services between Belfast and Dublin on the TEN-T Core Corridor for 2027 under Theme 5 – Investment Area 6: *Enhanced Sustainable Travel Connectivity*.
- 2.2.3 Other outputs include research projects, conservation management and action plans, facilitation of water monitoring networks and developing models for cross-border conservation.

2.3 Themes

2.3.1 The overall objective of the PEACE PLUS Programme will be to build prosperity and peace within the programme area to ensure that the Programme leaves a lasting legacy. The Programme will have two interlinked core objectives; firstly to maximise the opportunities and address the needs arising from the peace process in order to boost economic growth and stimulate social and economic regeneration. Secondly, it will promote social inclusion, particularly for those at the margins of economic and social life. This is based on the draft ETC regulation which states:

“Within the context of the unique and specific circumstances on the island of Ireland, and with a view to supporting North-South cooperation under the Good Friday Agreement, a new ‘PEACE PLUS’ cross-border programme should continue and build on the work of previous programmes between the border counties of Ireland and Northern Ireland. Taking into account its practical importance, it is necessary to ensure that, where the programme is acting in support of peace and reconciliation, the ERDF [European Regional Development Fund] should also contribute to promoting social, economic and regional stability in the regions concerned, in particular through actions to promote cohesion between communities.”

2.3.2 The Programme will help to address long standing social and economic challenges which continue to impact on communities, particularly those in rural border areas, whilst recognising the ongoing challenges that exist in urban settings throughout the region, and the devastating impact of Covid 19 on society. It will also respond to the European Green Deal objectives by ensuring that sustainable development is at the core of the interventions across the Programme.

2.3.3 The Programme proposed also takes account of the Draft Programme for Government in Northern Ireland and the Programme for Government in Ireland as well as core international standards such as the UN Sustainable Development Goals and the European Green Deal.

2.3.4 The PEACE PLUS Programme is being developed in the framework of the seven Policy Objectives as set out in the draft EU regulations:

- **Policy Objective 1: A MORE COMPETITIVE AND SMARTER EUROPE** by promoting innovative and smart economic transformation and regional ICT connectivity.
- **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 adaptation risk prevention and management, and sustainable urban mobility.
- **Policy Objective 3: A MORE CONNECTED EUROPE** by enhancing mobility.
- **Policy Objective 4: A MORE SOCIAL AND INCLUSIVE EUROPE** implementing the European Pillar of Social Rights.
- **Policy Objective 5: A EUROPE CLOSER TO ITS CITIZENS** by fostering the sustainable and integrated development of all types of territories.
- **Interreg Specific Objective 1: A BETTER COOPERATION GOVERNANCE.**
- **Interreg Specific Objective 2: A SAFER AND MORE SECURE EUROPE.**

2.3.5 The following information on themes is summarised from the SEUPB position papers issued in December 2020-February 2021. **It is important to note that the SEA and**

programme drafting are being completed in parallel and hence whilst the following text reflects the current position, this is subject to change as the programme evolves prior to adoption.

- 2.3.6 The programme development process has involved engagement with a Programme Development Steering Group made up of key community representatives and was also evidenced through the most extensive Stakeholder Engagement process that the SEUPB has been involved in since its formation with 16 public events taking place and over 1,000 people in attendance. This process resulted in a significant stakeholder response with views to SEUPB.
- 2.3.7 The draft design is the culmination of the Stakeholder Engagement process, which commenced in the summer of 2019, this includes:
- The framework for EU Programmes set out in the draft post 2020 EU Regulations;
 - Current and emerging Government policy in both the Northern Ireland (UK) and Ireland;
 - The discussions with all Government Departments in Northern Ireland and Ireland;
 - The Bilateral work undertaken by Government Departments and engagement in cross departmental working;
 - The socio-economic study prepared by Economists from the Departments of Finance (DOF and DPER) and other research;
 - The EU Border Orientation Report supplied to Member States; and,
 - The vast engagement with Stakeholder organisations (statutory, voluntary and Councils) and the engagement events with the public and the surveys submitted.
- 2.3.8 This has led to the development of six Themes to deliver on the core objectives set out above. These are defined below, with a brief description of the proposed Investment Areas under each, as at the December 2020-February 2021 programme proposal. The text below is summarised from the Themes and Investment Areas proposed for the PEACE PLUS Programme, more information is available in the Consultation Information Document of the PEACE PLUS Programme.

2.4 Theme 1: Building Peaceful and Thriving Communities

- 2.4.1 Theme 1 has been designed to optimise engagement and participation across all communities and sectors and thus, ensure the maximum contribution to peace and reconciliation in the Programme area.
- 2.4.2 Theme 1 involves four proposed Investment Areas (IA) which are described below.
- 2.4.3 **IA1: Co-designed Local Community Peace Action Plans** will enable and empower local community partnerships, led by the Local Authorities, to select and deliver priority projects on a cross community basis, which will result in shared and inclusive local services, facilities and spaces; and make a significant and lasting contribution to peace and reconciliation.
- 2.4.4 The Co-designed Local Community Peace Action Plans will enable diverse partnerships to establish priority actions for their local areas and collectively address these in a manner which will make a significant and lasting contribution to peace and reconciliation. Actions within the localised plans will span the range of social, environmental and economic

interventions included within the PEACE PLUS Programme. However, principally, the plans will be centred around three core themes: Local community regeneration and transformation; Thriving and peaceful communities; and Building respect for all cultural identities.

- 2.4.5 **IA2: The Empowering Communities** will empower community, voluntary and statutory organisations at all levels across the Programme area to contribute to the creation of a more peaceful and prosperous society. The Programme will develop the institutional capacity of community, voluntary and statutory organisations to embed and promote peace and reconciliation practice and services.
- 2.4.6 **IA3: The Building Positive Relations** will promote positive relations characterised by respect, where cultural diversity is celebrated and people can live, learn and socialise together, free from prejudice, hate and intolerance. This programme will provide support for projects which transcend local boundaries and have the potential to achieve significant peace and reconciliation across Northern Ireland and the border counties of Ireland.
- 2.4.7 **IA4: The Re-imagining Communities** is a transformative re-imagining programme, which will create new significant shared spaces for use by all communities; or increase the shared usage of existing facilities. It will result in an increased number of individuals and groups utilising shared spaces and accessing shared services. It will create a more cohesive society through an increased provision of transformative shared space and services, which will support and embed peace and reconciliation.

2.5 Theme 2: Delivering Economic Regeneration and Transformation

- 2.5.1 This theme recognises that the Programme area experiences low levels of entrepreneurship and innovation generally. This situation contributes to a high ratio of low to high paid jobs and comparatively higher levels of unemployment.
- 2.5.2 Theme 2 proposes three IAs which are described below.
- 2.5.3 **IA1: SME Development and Transition** aims to enhance sustainable growth and competitiveness of SMEs and job creation in SMEs, including by productive investments. This IA aims to build upon existing investment to support SMEs to: operate at scale through cross border collaboration; engage in commercially led innovation; effectively transition to engage in the low carbon, circular economy; deliver productivity improvements or transition to the latest digitisation tools; and strengthen capacity for maximum engagement in a post Brexit, post COVID-19 economic landscape.
- 2.5.4 Actions to be supported are specified as:
- Detailed SME capability assessment and mentoring programming to increase capacity in target areas including: sustainable development practices; new product and or process development; digitisation; and post COVID-19 recovery and adaptation planning;
 - Cross border collaborative research and innovation projects centred around core areas including sustainable / advanced manufacturing, to develop new products and or processes designed to increase competitiveness;
 - Creation and management of innovation focused, collaborative, cross border clusters;
 - Cross border academic and industry collaborative projects; and

- Creation and management of support for scaling networks in key growth sectors.
- 2.5.5 **IA2: Innovation Challenge Fund** will support high level, commercially focused research, development and innovation within key Programme area growth sectors, resulting in increased productivity, higher export levels and sustainable employment. It will deliver major change innovation projects, which result in lasting local and national economic and social benefit.
- 2.5.6 Actions specified to be supported include:
- High level cross border research, development and innovation projects, capable of demonstrating commerciality, which will contribute to Programme area growth sectors including Life & Health Sciences; Renewable / Bio Energy; Advanced Manufacturing; Agri-food; Cyber Security; and Artificial Intelligence;
 - Initiatives which support the application of advanced technologies across other sectoral areas including, the development of advanced technology hubs, which assist enterprises of all scales to develop new products and/or processes;
 - Programme area scaled facilities incorporating incubation and research space, digital facilities which will accommodate innovation led clustering in key sectors; and
 - STEM based initiatives that provide opportunities for young people from disadvantaged areas, who are not in mainstream education, to engage in the Research & Innovation sector.
- 2.5.7 **IA3: Programme Area Skills Development** will support area-based approaches, designed to address key skills gaps, which will result in increased productivity and employment and higher levels of cross border labour mobility. The Programme will enable cross community and cross border collaboration between education and training-based collaborations which will reduce duplication and maximise the capacity to address existing and emerging skills gaps. It will encompass the opportunity for up skilling, reskilling, training and job placement opportunities.
- 2.5.8 **IA4: Smart Towns and Villages** will provide greater access to and awareness of telecommunications. An area-based approach will be adopted to the creation of Smart Towns and Villages. This proven model utilises a social innovation led approach to maximise the potential of Information Communications Technology (ICT) to deliver improved social and economic outcomes in target areas; particularly those of a rural nature. The Programme will also incorporate measures for the transformation of vacant spaces and facilities within town and village centres for communal recreational and social usage.
- 2.5.9 Actions specified to be supported include:
- The design and development of advanced mobile digital hubs, to ensure the widest possible opportunities for digital access for rural citizens in particular;
 - The design and delivery of digital mentoring programmes to be delivered through the proposed mobile digital hubs in rural communities and businesses in particular; to increase digital skills/knowledge and thus provide opportunities for less isolation and increased social interaction;
 - The development of digital clusters that can then develop opportunities to increase remote working and by so doing reduce the need for rural citizens to leave their communities and commute long distances to work;
 - The development of projects which will help transform existing assets within town and village centres for citizen recreational and social usage; and

- The development of social enterprise / innovation led projects designed to apply advanced ICT to create new models of social service and economic development.

2.6 Theme 3: Empowering and Investing in our Young People

- 2.6.1 This theme focuses investing in our young people as it is essential to ensure the long-term peace and prosperity of the Programme area. Whilst the current generation of young people has not experienced direct conflict to the extent their parents and grandparents did, they live with the legacy of the conflict.
- 2.6.2 Theme 3 supports three IAs which are described below.
- 2.6.3 **IA1: Shared Learning Together Programme** will provide direct, sustained contact between children from all backgrounds through collaboration between early childhood settings, schools and youth organisations, to promote good relations and enhance children's skills to contribute to a cohesive society.
- 2.6.4 **IA2: the PEACE PLUS Youth Programme** will seek to enhance the capacity of children and young people to form positive and effective relationships with others of a different background, develop their confidence and future potential and contribute towards the creation of a more cohesive society. The PEACE PLUS Youth Programme is a targeted capacity building Programme for young people aged 14-24 years, who are disadvantaged, excluded or marginalised, have deep social and emotional needs and are at risk of becoming involved in anti-social behaviour, violence or paramilitary activity. The Programme is outcomes focused across a number of key areas including good relations, personal development, citizenship and employability.
- 2.6.5 **IA3: Youth Mental Health and Wellbeing** will enhance the capacity of children and young people to form positive and effective relationships with others of a different background and make a positive contribution to building a cohesive society. It will support non statutory provision activity involving cross community and cross border multi-agency collaborative approaches, which will lead to improved understanding of youth mental health issues and the sharing of best practice to improve related interventions. In addition to mental health, supported projects will also focus on the social, emotional and environmental wellbeing of young people and building their capacity. The Programme will make a considerable contribution to peace and reconciliation through the development of enhanced emotional resilience in our young people.

2.7 Theme 4: Healthy and Inclusive Communities

- 2.7.1 Theme 4 focuses on three IAs which are described below.
- 2.7.2 **IA1: Collaborative Health and Social Care** builds upon existing and new cross community and cross border collaborative approaches to health and social care delivery models (within specified treatment areas), to deliver an increased number of episodes of care.
- 2.7.3 **IA2: Rural Regeneration and Social Inclusion** will support social, economic and environmental projects which contribute to sustainable regeneration, social inclusion and the creation of healthy and thriving communities in rural areas. By adopting a strengths-based approach, the programme will contribute to the creation of a more balanced society, in which our rural communities thrive.

2.7.4 To address these identified challenges, IA2 aims to support the following measures:

- Deployment of human resources to co-ordinate collaborative (cross community and cross border) approaches; progress key strategic projects; and deliver core community services, including those related to health and wellbeing, across designated rural area boundaries;
- Development of centralised facilities to support the provision of key family support services, ranging from early years to older people, in a setting which will facilitate increased levels of cross community contact;
- Deployment of resources to support diversification in the agricultural sector and the development of social farms (including collaborative approaches) for social and economic benefit;
- Development and delivery of rural specific social enterprise support programmes including those focused on increasing health and wellbeing. This will incorporate support for: volunteer recruitment and development; product and or service development; awareness, promotion and sectoral marketing; funding mechanisms; and capital assets required for service delivery and expansion; and
- Development of green infrastructure to promote active lifestyles and support enterprise and tourism within rural areas (including those on a cross border basis) and the interconnection of rural and urban areas.

2.7.5 **IA3: Victim and Survivors** aims to create a more cohesive society through an increased provision of services. The PEACE IV Programme currently supports an integrated, outcomes based, community led support programme for victims and survivors. This has improved the lives of many victims and survivors in the Programme area and beyond, including cross community and cross border interventions. The Victims and Survivors Programme provides an opportunity to learn from and build upon this work, to provide additional support to victims and survivors. The proposed areas are as follows: further development of the health and wellbeing case worker network model; advocacy support programmes (Truth, Justice and Acknowledgement); sector training and development; research including new co-designed and action based approaches; and further development of the resilience programmes.

2.8 Theme 5: Supporting a Sustainable and Better Connected Future

2.8.1 This theme recognises that our natural environment is one of our most important assets and its enhancement and protection is critical to the future economic and social development.

2.8.2 **IA1: Biodiversity, Nature Recovery and Resilience** presents an opportunity to build upon current INTERREG VA Programme by continuing to promote cross border co-operation and facilitating the recovery of additional protected habitats and priority species. Investment will be directed towards further delivery of conservation actions proven to redress biodiversity loss and preserve these important environmental, social and economic assets.

2.8.3 Specified actions under this IA include:

- **Protected site restoration:** Delivery of further necessary conservation measures in areas supporting the selected habitats and species to improve conservation condition and increase ecological and climate resilience. This includes: development of wildfire resilience plans; and the development of nature-

based solutions to improve the capacity of habitats to store carbon (including sustainable grazing solutions, positive adjustments to hydrological flow and reductive strategies for encroaching scrub species); and monitoring to demonstrate conservation outcomes;

- **Development and management of nature recovery networks and nature-based projects:** Identification of key areas for nature recovery and the development and implementation of ecological recovery networks, including green infrastructure; monitoring of species to determine necessary conservation action; and the identification and implementation of nature-based solutions for climate mitigation and adaptation, including restoration of habitats to increase carbon storage and/or attenuate flooding risks;
- **Initiatives to increase connection with nature:** Initiatives which increase appropriate recreation within, and appreciation of, important areas for nature recovery areas; innovative solutions and rural enterprise activities linked to nature recovery areas, which promote nature conservation; and localised biodiversity action, citizen science projects, and education activities that increase awareness and appreciation; and
- **Initiatives to address invasive alien species (IAS):** Development of an all-island strategy on invasive alien species; establishment of an all-island biosecurity group; commissioning of baseline awareness surveys; and development of systems to capture and centralise all-island invasive species data.

2.8.4 **IA2: Marine and Coastal Management** will enable a cross border approach to the protection of the marine and coastal environment from natural and anthropological threats; safeguarding this irreplaceable natural asset and resulting in economic, social and cultural benefits to the Programme area.

2.8.5 **IA3: Water Quality and Catchment Management** will enable a cross border collaborative approach to the management and improvement of water quality in selected cross border water bodies. In line with the Water Framework Directive, this will be demonstrated by an improved classification over time. The Programme will promote sustainable water management. It will improve freshwater quality in cross border river basins and result in an increased percentage of cross border freshwater bodies in cross border river basins with good or high quality.

2.8.6 Actions specified under IA3 include:

- A pilot/pilots for nature-based solutions or innovative nature based solutions to restore catchments including: peat restoration, water management measures to reduce runoff (sediment loss) and nutrient loss to waterways and to reduce impacts from flooding, e.g. green infrastructure;
- An operational strategy for dealing with nutrients (soil, organic manures and chemical fertilisers, digestate, sewage sludge) and trans boundary movements in cross-border catchments to include elements such as flow of nutrients, tracking systems, innovative solutions for optimum use of nutrients for sustainable utilisation of all nutrients;
- Initiatives which result in a measurable change in behaviours/ mind set of landowners; and
- A project legacy initiative which will develop or enhance community-focused environmental learning resources to improve understanding of cross-border catchment from environmental, cultural, social or economic views; and /or improve amenity value through nature recovery networks.

2.8.7 **IA4: Water Quality Improvement Programme** will result in an improvement in the water quality of three specific transitional water bodies: Lough Erne, Lough Melvin and Donegal Bay through cross border collaboration. In addition, raw drinking water quality will be improved through the reduction of pollutants, including those of an agricultural nature.

2.8.8 Actions specified under IA4 include:

- The development of a comprehensive cross border catchment plan focused on the cross border catchments of Loughs Melvin, Erne and Donegal Bay;
- The development of a suite of integrated models that will act as tools for the management of shared inland freshwater bodies (Lough Erne, Lough Melvin and Donegal Bay) as a complete ecosystem; and to incorporate sustainable treatment technologies and innovative solutions;
- Research and development in wastewater treatment technologies, including the use of sustainable technologies with direct relevance to shared transitional waters;
- Capital projects delivering decarbonisation during both the construction and operation;
- The development and delivery of innovative solutions for sewage related pressures in rural areas in priority catchment(s), to be adopted by the local utility;
- The production of enhanced fishery assessments for both Lough Erne and Lough Melvin;
- The production of a comprehensive ecosystem model for the above catchments, coupled with an advanced network of instrumentation;
- An assessment of ecosystem services within the target transitional waters;
- The design of bespoke management plans for drinking water catchments (to include modelling and GIS data sharing);
- Strategic projects designed to improve raw water quality which focus on the reduction of pollutants affecting drinking water quality (including those of an agricultural nature);
- Projects which encourage improved pesticide practices and develop sustainable farm practices across catchments to minimise impact upon water quality; including the development of a holistic pesticide plan to reduce / eliminate pesticide use within cross-border catchments;
- Upstream catchment based initiatives to encourage uptake of catchment measures that achieve multiple benefits for water quality, quantity and biodiversity;
- The provision of alternative sustainable treatment systems such as reed beds, willows and wet-lands; and
- The provision of nature-based solutions and value added blue green infrastructure wherever possible, such as Integrated Constructed Wetlands; and
- The delivery of education and outreach events for locals including citizen science and school visits.

2.8.9 **IA5: Geothermal Energy Demonstration Programme** will build the knowledge, skills and capacity required to develop a policy framework and encourage investment in the geothermal technology sector. Associated cross border collaboration to achieve the replacement of fossil fuels by indigenous renewable energy in the heat sector, will result in a reduced reliance on fossil fuels and enhanced energy security. It will deliver economic, social and environmental benefits across the Programme area.

2.8.10 It will deliver economic, social and environmental benefits across the Programme area. The types of actions supported will include:

- Demonstration projects which build awareness regarding the benefits of and support for increased uptake of geothermal technologies in the residential, industrial and public sectors;
- Initiatives which demonstrate the application and efficiency of heat networks using shallow geothermal energy and Ground Source Heat Pump (GSHP) systems, including those within the SME sector;
- Initiatives which demonstrate the application of Deep Geothermal Energy (>400 m), particularly for decarbonising District Heating Systems;
- Initiatives designed to increase market penetration of GSHPs;
- Initiatives which involve the design, build and operation of geothermal surface infrastructure within social housing sector in the Programme area;
- Initiatives which support the growing geothermal technologies sector in the Programme area;
- Initiatives which contribute to the development of a cross border policy framework designed to promote and support cross-sectoral uptake of geothermal technologies across the Programme area;
- Geothermal related energy efficiency studies focussed on areas most affected by fuel poverty; and
- Programmes for citizens to raise awareness and understanding of the benefits of Geothermal heating solutions.

2.8.11 **IA6: Enhanced Sustainable Travel Connectivity** will increase connectivity in the form of sustainable public transport. It will involve significant investment in sustainable rail stock. The improvement of the rail service linking the two capital cities and the smaller adjacent urban centres of Portadown, Newry, Dundalk and Drogheda can exploit this dynamic to its full potential, providing spin-off agglomeration and wider economic and environmental benefits, including contributing to the long-term development of a zero emissions rail network. Investment in transport will be a catalyst for regeneration and economic growth, in particular on the economic corridor between Belfast and Dublin, including the border counties in both Northern Ireland and Ireland.

2.9 Theme 6: Building and Embedding Partnerships and Collaboration

2.9.1 This final theme aims to tackle legal and administrative obstacles to cross-border collaboration. It includes two IAs:

2.9.2 **IA1: Strategic Planning and Engagement** will support the engagement of strategic stakeholders, targeting legal and administrative obstacles to cooperation in relevant sectors. The funding will focus on enabling joint development and management of strategies; cooperation capacity building; and identification of solutions to reduce obstacles to cross-border cooperation.

2.9.3 **IA2: Maintaining and Forging Relationships between Citizens** will put in place mechanisms to finance smaller projects that make a strong contribution to the social and civic cohesion on a cross border basis.

2.10 Characterisation of PEACE PLUS Territories

2.10.1 The geographic area covered by the PEACE PLUS Programme (shown in Figure 2.1 below) comprises:

- The whole of Northern Ireland;
- The border counties of Ireland, comprising Cavan, Donegal, Leitrim, Louth, Monaghan and Sligo; and
- The maritime areas of both jurisdictions.

2.10.2 The border area is largely characterised by a low density of population with the exception of the larger urban agglomerations such as Derry and Strabane to the north and Newry and Dundalk in the south. Belfast is around 30 to 60 minutes travel distance from the actual border. To the south the border region is connected to Dublin (90 minutes away).

2.10.3 The Nomenclature of Territorial Units for Statistics (NUTS) is a geocode standard for referencing the subdivisions of member states of the European Union. The NUTS standard is instrumental in delivering the European Union's Structural Funds; a hierarchy of three levels – NUTS 1, 2 and 3 – is established by Eurostat.

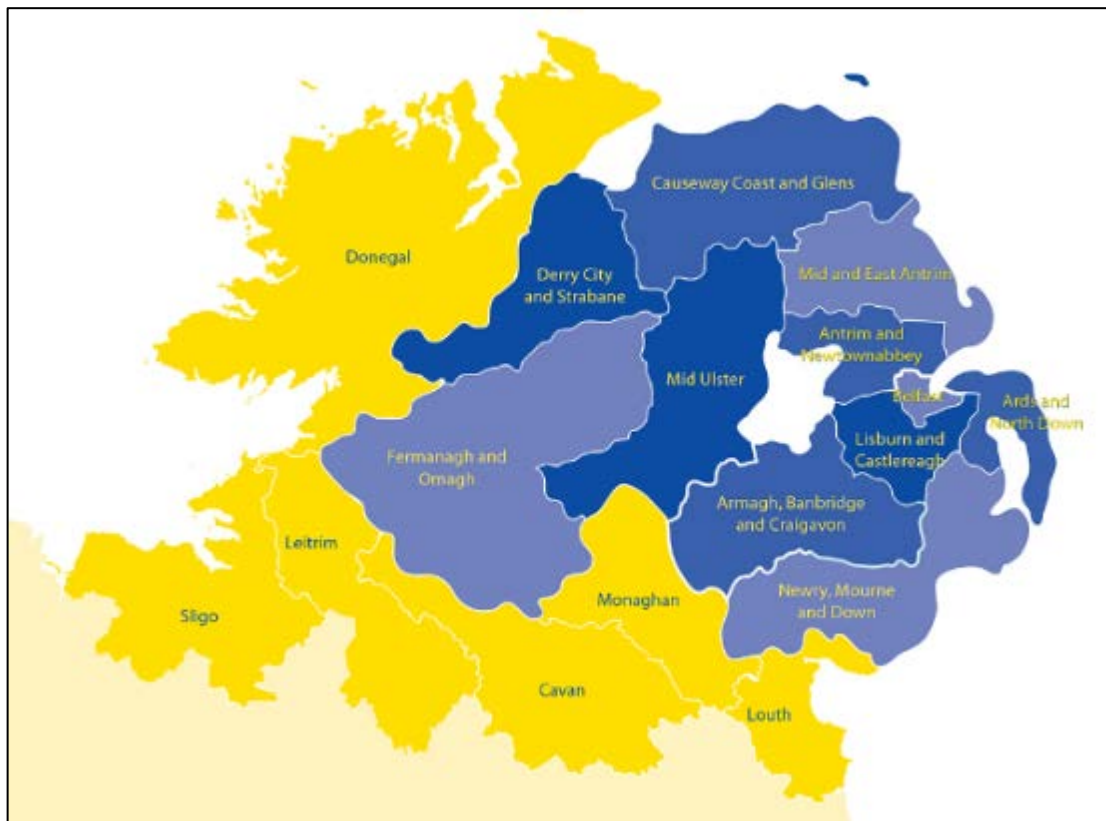
2.10.4 Northern Ireland is classed as both a NUTS 1 and 2 region; it is subsequently divided into five NUTS 3 regions. These NUTS3 regions comprising of Belfast (UKN01), Outer Belfast (UKN02), East of Northern Ireland (UKN03), North of Northern Ireland (UKN04) and West and South of Northern Ireland (UKN05). (ONS, 2020)

2.10.5 Ireland's border region is comprised of six counties, five of which come under NUTS2 Code: IE04 and NUTS3 Code: IE041. Those are Cavan, Donegal, Leitrim, Monaghan and Sligo. The other, Louth, comes under NUTS2 Code: IE06 and NUTS3 Code: IE062.

2.10.6 Belfast is the only designated metropolitan area within the programme area. There are two 'predominantly urban' NUTS 3 regions, both within Northern Ireland: Belfast and Outer Belfast. There are two 'intermediate' NUTS 3 regions, also both within Northern Ireland; East of Northern Ireland and North of Northern Ireland. West and South of Northern Ireland and Border Region (IE) are predominantly rural.

2.10.7 However, the geographical area is not strictly limited to the administrative borders of the programme, i.e. the designated programme area, but can have flexible geography depending on the topic concerned and interactions and interdependencies that happen around those topics. This is referred to as a functional area. The location of the project or the location of the partners is not a defining matter. What matters is that the projects benefit the cross-border area.

Figure 2.1: Geographic Coverage



Northern Ireland

- 2.10.8 Northern Ireland is a region of the United Kingdom (UK) that shares a land border with Ireland. In the most recent mid-year population estimate (2019) issued by NISRA its population was 1.89 million, with an increasing trend of approximately 0.6% per year over the past five years (NISRA, 2020).
- 2.10.9 The population of Northern Ireland was therefore approximately 2.8% of the total population of the UK for the same period (66.65M).
- 2.10.10 The NISRA statistical bulletin indicates that Belfast is by some distance the most populous local government district of Northern Ireland at 343,500 representing approximately 18% of the total population. It is also the cultural and economic centre of Northern Ireland.
- 2.10.11 After Belfast, the next most populous districts are; Armagh City, Banbridge and Craigavon (216,200) and Newry, Mourne and Down (181,400).

Border Counties of Ireland

- 2.10.12 The Border Counties of Ireland is made up from the geographical area of counties Cavan, Donegal, Leitrim, Louth, Monaghan and Sligo. It encompasses an area of 12,156 km². from the Atlantic Ocean to the west to the Irish Sea in the east. Much of this area is rural characterised by its scenic quality and access to countryside based recreational activities. These, along with its strong cultural and heritage assets, make it an area very suitable for a strong tourism base.

2.10.13 According to the Irish Central Statistics Office (CSO) Population and Migration estimates, 2019, the population of the border region is approximately 406,700 representing approximately 8% of the national population of 4.91M in the same year.

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';
- Office of the Deputy Prime Minister (ODPM), Scottish Executive, Welsh Assembly Government and Department of Environment (DOE) (2005), 'A Practical Guide to the Strategic Environmental Assessment Directive';
- Northern Ireland Environment Agency (2009), 'Strategic Environmental Assessment: Consultation Bodies' Services and Standards for Responsible Authorities'; and,
- Environmental Protection Agency (EPA) (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).

3.1.2 Guidance is also taken from the following documents:

- Department for Communications (DfC) Historic Environment Division (HED) (2018) Guidance on Sustainability Appraisal and Strategic Environmental Assessment for the Historic Environment;
- EPA (2020) SEA Pack;
- EPA (2020) Good Practice Guidance on Cumulative Effects Assessment in SEA;
- EPA (2020) Guidance on SEA Statements and Monitoring;
- EPA (2019) Integrating Climatic Factors into the Strategic Environmental Assessment Process in Ireland;
- EPA (2015) Developing and Assessing Alternatives in Strategic Environmental Assessment; and
- EPA (2013) Integrated Biodiversity Impact Assessment – Streamlining AA, SEA and EIA Processes: Practitioner's Manual.

3.2 The SEA Process

3.2.1 The SEA Guide produced by ODPM, Scottish Executive, Welsh Assembly Government and DOE in 2005, in common with other SEA guidance documents, sets out a five-stage process for carrying out SEA. These stages are summarised in in Table 3.1 below.

Table 3.1: Stages in the SEA Process

Stage	Tasks
Stage A: Setting the context and objectives, establishing the baseline and	A1: Identifying other relevant plans, programmes and environmental protection objectives
	A2: Collecting baseline information
	A3: Identifying environmental problems

Stage	Tasks
deciding on the scope	A4: Developing SEA objectives
	A5: Consulting on the scope of SEA
Stage B: Developing and refining alternatives and assessing effects	B1: Testing the plan or programme objectives against the SEA objectives
	B2: Developing strategic alternatives
	B3: Predicting the effects of the plan or programme, including alternatives
	B4: Evaluating the effects of the plan or programme, including alternatives
	B5: Mitigating adverse effects
	B6: Proposing measures to monitor the environmental effects of plan or programme implementation
Stage C: Preparing the Environmental Report	C1: Preparing the Environmental Report
Stage D: Consulting on the draft plan or programme and the Environmental Report	D1: Consulting the public and Consultation Bodies on the draft plan or programme and the Environmental Report
	D2: Assessing significant changes
	D3: Making decisions and providing information
Stage E: Monitoring the significant effects of implementing the plan or programme on the environment	E1: Developing aims and methods for monitoring
	E2: Responding to adverse effects

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

3.3 Sustainability Topics and SEA Objectives

3.3.1 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 the inter-relationship between these.

3.3.2 The purpose of the SEA Objectives is to ensure that the assessment process is transparent and robust and that PEACE PLUS Programme considers and addresses potential environmental effects. SEA Objectives (including more detailed sub-objectives) have been set for each of eleven sustainability topics.

3.3.3 The inter-relationship between the topics is addressed through the Natural Capital heading which aims to draw together the consideration of the effects of the programme in the round accounting for all objectives.

Table 3.2: SEA Objectives

SEA Objective	Sub-objective (Will the Programme...?)
1. Ecology and Nature Conservation – Protect, enhance and manage biodiversity assets and ecosystems	<ul style="list-style-type: none"> a. Maintain and enhance internationally and nationally terrestrial, freshwater and marine designated sites b. Maintain and enhance locally terrestrial, freshwater and marine designated sites and priority habitats c. Maintain and enhance the amount, variety and quality of terrestrial, freshwater and marine ecosystems d. Maintain and enhance the amount and variety of living species e. Benefit protected and priority species f. Protect pristine and wild places that act as biodiversity hubs, contribute to health and wellbeing and provide sustainable tourism opportunities g. Ensure no net loss of biodiversity associated with any project flowing from the programme
2. Health and Quality of Life – Improve health and quality of life	<ul style="list-style-type: none"> a. Improve long-term health and wellbeing b. Improve social and cultural structures c. Encourage walking, cycling and other physical activity d. Promote recognition of the benefits of a good quality environment to health and wellbeing
3. Population and Socio-economic factors – enhance life opportunities and promote strong community cohesion	<ul style="list-style-type: none"> a. Support and improve cohesion across communities b. Reduce deprivation, inequality and social exclusion c. Improve access to education, training, employment opportunities, community facilities/services and greenspace d. Support post-Covid economic recovery e. Support integrating resource efficiency and sustainability ideas and performance accounting across all economic sectors
4. Soil and Land Use – Protect and enhance soil quality	<ul style="list-style-type: none"> a. Safeguard and improve the highest quality soil and agricultural land b. Reduce soil pollution, degradation and erosion c. Encourage sustainable food production and consumption d. Encourage use of previously developed land e. Support the remediation of contaminated land
5. Water – Protect, enhance and manage water resources and flood risk	<ul style="list-style-type: none"> a. Protect water resources from over-abstraction b. Protect water resources from pollution c. Implement measures that achieve ongoing improvement in the environmental status of water bodies from source to the sea 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	<ul style="list-style-type: none"> a. Improve air quality b. Support increased uptake of sustainable transport
7. Climate Change – Minimise contribution to	<ul style="list-style-type: none"> a. Support the programme area in reducing its GHG footprint b. Encourage use of renewable energy

SEA Objective	Sub-objective (Will the Programme...?)
climate change and adapt to its predicted effects	c. Improve climate change resilience and adaptation capacity, including resilience to coastal erosion and drought
8. Material Assets – Conserve and enhance resources and reduce waste production	<ul style="list-style-type: none"> a. Safeguard natural resources (including minerals, soils and natural capital) and minimise unsustainable use b. Increase recycling rates and re-use of materials in line with circular economy c. Maintain and improve critical infrastructure such as grid, transport corridors (rail and road), gas, water and wastewater
9. Historic Environment – Protect, enhance and manage archaeological and cultural heritage	<ul style="list-style-type: none"> a. Preserve and enhance designated and non-designated sites, buildings and areas b. Preserve and enhance archaeological sites c. Preserve and enhance geological heritage sites
10. Landscape - Protect, enhance and manage the character and quality of the landscape	<ul style="list-style-type: none"> a. Maintain and enhance the quality and character of landscape, townscape, seascape and coastal areas b. Maintain and enhance designated sites c. Create, maintain and enhance public open space and green infrastructure assets
11. Natural Capital	<ul style="list-style-type: none"> a. Encourage sustainable multifunctionality of greenspace to enhance human health and quality of life, water, soil and air quality, climate regulation and biodiversity simultaneously b. Encourage sustainable cultural and outdoor recreational tourism that is landscape, seascape 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

3.4 Assessment Methodology

3.4.1 This stage of the SEA process involves the identification and evaluation of the likely significant effects on the environment of implementing PEACE PLUS 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

3.4.2 The first step of the assessment process, the high level assessment, is used to identify the likely adverse, beneficial, neutral and uncertain effects of PEACE PLUS on the environment. Presented in matrix format, the assessment ascertains how well each of the Themes and constituent Investment Areas meet each of the SEA Objectives. A descriptive summary of the likely effects is provided alongside the matrix.

- 3.4.3 The high level matrix assessment is not a conclusive tool or model; its purpose is to identify those IAs for which uncertainties or potential adverse effects may arise. These particular IAs would then typically undergo further scrutiny at the detailed matrix assessment stage.
- 3.4.4 A high level matrix assessment has also been carried out on the different strategic alternatives, including the 'zero' or 'do nothing' option. This enables comparisons to be drawn between how well each alternative option correlates with the SEA Objectives.
- 3.4.5 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








- 3.4.6 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 TO and IA identified as potentially having such effects has been analysed against each of the SEA Objectives in more detail.
- 3.4.7 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).
- 3.4.8 *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.*

- 3.4.9 The detailed matrices used in the assessment of PEACE PLUS 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.
- 3.4.10 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

- 3.4.11 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

- 3.4.12 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 PEACE PLUS 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.

- 3.4.13 In order to ensure that cumulative effects are considered throughout the SEA and PEACE PLUS 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.
- 3.4.14 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 PEACE PLUS priorities identified as having adverse effects in the detailed matrix assessment) with the plans and programmes identified in Section 4.2.

4 SEA SCOPING

4.1 SEA Scoping Process

- 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 programme and the SEA objectives and set the scope of the SEA. This was completed by RSK and SEUPB in summer 2020, 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.
- 4.1.3 The SEA Scoping Report was issued by SEUPB to the Consultation Bodies on 28th September 2020. These included:
- Northern Ireland:
 - Northern Ireland Environment Agency (NIEA) on behalf of the DAERA;
 - Ireland:
 - Environment Protection Agency (EPA);
 - Department of Housing, Local Government and Heritage (DHLGH);
 - Department of Environment, Climate and Communications (DECC);
 - Department of Culture, Heritage and the Gaeltacht (DCHG); and
 - Department of Agriculture, Food and the Marine (DAFM).

4.2 Scoping Consultation

- 4.2.1 Consultation Bodies must provide a view, once consulted by SEUPB, within five weeks. Responses were received from NIEA, EPA and DECC. Consultation responses on the Scoping Report are reproduced in Appendix A, along with a comment on how they have been accounted for in the preparation of this Environmental Report.

4.3 Other Plans, Programmes and Conservation Objectives

- 4.3.1 Assessing the relationship of PEACE PLUS 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.
- 4.3.2 The scoping process involved an initial review of plans, programmes and environmental protection objectives. Much of the policy environment relating to PEACE PLUS is influenced by European Directives and policy. Considerations relating to Brexit and, to an extent, Covid response is expected to change the balance of legislative requirements and may, over time, lead to a reduced prominence of European driven legislation.
- 4.3.3 However, at the time of writing neither the details of such change nor the timescales over which it may occur have been finalised. Hence, for the purpose of this report, the analysis

of other relevant plans, policies and programmes is based on the legislative landscape as it exists pre-Brexit.

- 4.3.4 Additionally there are emerging EU Directives and policies that will be relevant to PEACE PLUS and the SEA which will in future apply in Ireland but not Northern Ireland, for example the EU Biodiversity Strategy 2030. As the Programme is cross-border in extent, such policies are still relevant to the SEA and hence are considered as applicable.
- 4.3.5 Plans and programmes containing environmental protection objectives which are relevant to PEACE PLUS are listed and assessed in full in Appendix B.

4.4 Summary of Baseline Data

- 4.4.1 The Environmental Report must contain the following information in respect of baseline conditions (based on the requirements of the Northern Ireland Regulations; equivalent provisions exist in the Ireland Regulations):

“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.”

- 4.4.2 A summary of the current state of the environment in Northern Ireland and Ireland in respect of each of the sustainability topics is provided below with maps provided in Appendix C. 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 Programme. SEUPB does not have responsibility for formulation or implementation of environmental policy issues, but in keeping with all public bodies has the potential to influence such matters through its plan-making and delivery. Key environmental and sustainability issues for Northern Ireland and Ireland (including the border counties) have also been identified.
- 4.4.3 Information for this section has been obtained from, in Northern Ireland the DAERA, NIEA, DfC HED , and Northern Ireland Statistics and Research Agency (NISRA) websites; and in Ireland, the National Parks & Wildlife Service (NPWS) and EPA and other documents.

Ecology and Nature Conservation

Strengths and Opportunities

Northern Ireland

- Northern Ireland has 57 Special Areas of Conservation (SAC), 17 Special Protection Areas (SPAs) and 21 Ramsar sites. Northern Ireland has 394 Areas of Special Scientific Interest (ASSIs), 62% of which are in favourable condition (DAERA and NIEA, 2020). Northern Ireland also has 12 National Nature Reserves (NNRs) and 37 Nature Reserves (NRs) (NIEA, 2016).

- Due to a number of initiatives the area of terrestrial protected sites under favourable management rose from under 50 km² in 2017/18 to over 200 km² in 2019/20 (DAERA and NIEA, 2020).
- Northern Ireland has a number of Marine Protected Areas consisting of Marine SACs, Marine SPAs, Ramsar sites, Coastal ASSIs and Marine Conservation Zones. The total marine protected sites increased from 269 km² in 2009/10 to 2,566 km² in 2019/20 as well as an increase in the area of sites under favourable condition (DAERA and NIEA, 2020).
- Northern Ireland has a special responsibility as it is at the western edge of the range of European habitats and species. Such habitats include lowland raised bog, blanket bog, montane heath and fen. Species identified as being particularly important in Northern Ireland include the Irish Hare (*Lepus timidus hibernicus*), Chough (*Pyrrhocorax pyrrhocorax*), Curlew (*Numenius arquata*) and Red Squirrel (*Sciurus vulgaris*).
- Northern Ireland has a large proportion of the UK and EU blanket peat resource. Upland blanket bogs and lowland raised bogs are well represented in Northern Ireland. Peaty soils cover almost 15% of Northern Ireland's land (DOE, 2015). Many upland blanket bogs and lowland raised bogs are designated ASSI or given other protected status.
- Northern Ireland is notable within the UK for its large area of freshwater habitats, their flow dynamics, their nutrient characteristics and their biodiversity, including internationally important bird populations. Priority is now being given to restoring riverine habitats and recognising their role in flood prevention.
- Between 2000 and 2012, 30% of priority BAP habitats were classed as stable and 10% were improving. For priority BAP species, data is only available for the status of 86 Northern Ireland priority species which are subject to European protection, of these 32% as classed as stable and 18% as improving (NIEA, 2013).

Ireland

- Ireland has 439 SACs, of which 80 are located largely or entirely within the Border Counties, 165 SPAs, of which 41 are located within the Border Counties and 45 Ramsar sites, 9 of which are located within the Border Counties. Nineteen of its SACs are MPAs for marine habitats (NPWS, 2020).
- To date, 75 raised bogs, mainly in the midlands, and 73 blanket bogs, located mostly in western areas, are designated as Natural Heritage Areas (NHAs). The Border Counties have approximately 27 NHAs and 215 proposed (NPWS, 2020). Some of the pNHAs are also afforded protection through specific objectives in County Development Plans.
- Ireland also has Nature Reserves, which are areas of importance to wildlife, Refuges for Fauna, which are designated to protect habitats of named species and statutory Wildfowl Reserves, which provide protection for migratory and resident wildfowl species and the habitats that support them.
- 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%), occurring as raised bogs, blanket bogs or fens and dry and wet heath.
- There are 68 Habitats Directive-listed species in Ireland, of which 8 are described as vagrants. Of the remaining 60 species, approximately 57% of the Habitat Directive-listed species in Ireland are in favourable condition and while 72% demonstrate stable or improving trends (DCHG, 2019).
- A significant proportion of the floral and faunal biodiversity resource is located outside areas under formal European designation (SAC, SPA, NHA, Ramsar) and

while many river systems are not designated under the Habitats Directive, they may hold species that are designated, e.g. Atlantic salmon (*Salmo salar*) and lamprey species (Inland Fisheries Ireland, 2020).

- 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, monitoring data identified that over approximately 16 years, 85% of assessed species were increasing (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

Northern Ireland

- Approximately 35% of ASSI habitat features are in an unfavourable condition (DAERA and NIEA, 2020).
- Between 2000 and 2012, 36% of priority BAP habitats were classed as declining and for 24% the situation was unknown. For priority BAP species, data is only available for the status of 86 Northern Ireland priority species which are subject to European protection, of these 31% were classed as declining and for 19% no information on trends was available (NIEA, 2013).
- Around 90% of lowland raised bogs have been lost or altered due to peat extraction, forestry and drainage, although the rate of decrease has been slowing down, mainly as a result of habitat conservation measures and the favourable economics of oil fuel prices compared with peat cutting costs (Cooper, et al., 2009).
- The Northern Ireland Countryside Survey (NICS) indicates the rate of semi-natural habitat loss continued between 1998 and 2007, though the rate of loss was lower compared to the pre-1998 rate. Habitat change included scrub/woodland succession, conversion from neutral grassland/species-rich grassland to agricultural grassland, decrease in species-rich grassland/bent-fescue grassland and poor fen due to scrub/wood succession and conversion to agricultural grassland.
- Ammonia/nitrogen deposition is seen as a threat for approximately 75% of Northern Ireland's terrestrial priority habitats and as a threat of high significance for 45% of these habitats (Expert Working Group on Sustainable Agricultural Land Management for N. Ireland, 2017).
- Northern Ireland has, at around 8.5% (based on UK Land Cover Map 2015), the lowest forest cover of any of the UK regions and the area of new forest and woodland plantings each year has been decreasing (DAERA and NIEA, 2020).
- Lowland raised bogs and other wetland habitats have decreased over the past 10 years. Arterial drainage works carried out until the 1990s resulted in Northern Ireland having the highest percentage of modified rivers in the UK, with accompanying impacts on biodiversity. The spread of invasive species has also become a concern in many wetlands, affecting the biodiversity of these habitats.

Ireland

- The conservation status of 85% of EU protected habitats in Ireland is unfavourable, while 46% are demonstrating ongoing declines in conservation status with peatlands, grassland and some marine habitats a particular concern (Biodiversity Working Group, 2020).

- Based on the Article 17 report, agriculture (and to a lesser extent forestry) has been identified as key contributors to the declines in conservation status, with over 70% of habitats being impacted by agricultural practices (DCHG, 2019). Non-agricultural pressures include primarily alien and problematic species and development, construction and use of residential, commercial, industrial and recreational infrastructure and areas.
- Coastal and marine biodiversity is coming under pressure from human activities including nutrient and chemical discharge and through direct physical disturbance and habitat degradation from pollution, litter, man-made noise and light, fishing and by-catch of marine mammals (DCHG, 2017).
- Peatlands are however under threat due to habitat change and exploitation (e.g. through drainage and peat extraction), 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).
- Red List assessments have shown that just over 14% of the taxa were assessed as under threat of extinction (including 30 species of bees, European eel (*Anguilla anguilla*), Arctic char (*Salvelinus alpinus*), and natterjack toad (*Epidalea calamita*) (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 (Cummins, S. et al., 2019). The number of the Birds of Conservation Concern on the Red list and the Amber list has increased in the latest assessment compared to the previous assessment.
- 58 species of cartilaginous fish (Sharks, skates, rays and chimaeras) were assessed using the latest IUCN categories. Of those, 6 were assessed as Critically Endangered; 5 species were assessed and Endangered; 6 were assessed to be Vulnerable. Of the remaining species, 19 were assessed as Near Threatened and 22 species as Least Concern. It is noted that the main anthropogenic impacts on threatened species are over-exploitation by commercial fisheries and habitat destruction and disturbance (NPWS, 2016).

Health and Quality of Life

Strengths and Opportunities

Northern Ireland

- The majority (72%) of Health Survey Northern Ireland (2018/19) respondents rated their own general health as very good or good.
- The availability of Northern Ireland's health services compares favourably compared to other parts of the UK. The number of GP's per 100,000 of population in Northern Ireland is 67. This is below Scotland at 76.2 GP's per 100,000 population, but higher than England (58.1) and Wales (62.6) (Nuffield Trust, 2020)¹.
- Bringing people together in rural areas to partake in active community engagement can lead to improvements in physical and mental health.

¹ This data pre-dates the current Covid-19 pandemic.

Ireland

- 86% of people in the border regions of Ireland rate their own health as very good or good.
- In Ireland the availability of health services compares favorably to the UK. There are 3.07 doctors per 1,000 people across the country compared with a UK figure of 2.82 (Nuffield Trust, 2020). The number of nurses per 1,000 people is similarly higher with 11.61 in Ireland compared with 7.86 in the UK.

Weakness and Threats

Northern Ireland

- At time of writing, the effects of the Covid-19 pandemic are particularly pronounced in Northern Ireland with some of the highest infection rates in the UK. The lasting effect of the pandemic on public health in the region, both directly and indirectly, is as yet uncertain but has the potential to be significant.
- Mental health illnesses are prevalent in Northern Ireland and are expected to increase in the coming years. 18% of respondents to the Health Survey Northern Ireland (2018/19) are recorded as having difficulties with their own mental health.
- As of 2017, only 40% of the adult population participate in at least 150 minutes of sport and physical activity a week compared with 60% in the UK as a whole (NISRA, 2017).
- The Northern Ireland Health Survey First Results 2018/19 indicated that 62% of adults in Northern Ireland were either overweight (37%) or obese (25%), together with 27% of children.
- Some more rural communities can face isolation and a reduced level of access to health services compared with more urban areas. This can lead to a negative impact on physical and mental health and well-being.

Ireland

- Mental health illnesses are prevalent in Ireland and the number of people experiencing such problems is expected to increase in the coming years. Approximately 25% of the national population are expected to experience mental health challenges in their lifetime and the level of suicide amongst younger age groups is amongst the highest in the EU.
- The national Healthy Ireland Survey (Department of Health, 2019) identified that 37% of the surveyed population are overweight and 23% are obese. However, among those aged 65 and over, 74% are overweight or obese.
- As of 2019, only 46% of the population are achieving the minimum level of activity recommended by the National Guidelines by being moderately active for at least 150 minutes a week.
- According to the Healthy Ireland survey (Department of Health, 2019), 32% of respondents report that they currently have a long-standing illness or health condition that will last for 6 months or more. This has increased from 29% in 2018.
- The lasting effects of the Covid-19 pandemic on public health is as yet uncertain.

Population: Socio-economics

Strengths and Opportunities

Northern Ireland

- Rural communities have a strong sense of local identity with SME businesses embedded within these playing a positive role in the community.
- The economic inactivity rate in 2020 is significantly lower than the rate observed in 2017 (NISRA, 2020)².
- The Northern Ireland economic activity rate remains above the wider UK average rate.
- Education attainments in Northern Ireland are rising. The number of people of working age with high level skills (degree level and HE) increased from 25% in 2009 to 37% in 2019 (Labour Force Survey, 2019).
- The number of housing completions increased by 10% between 2017/18 and 2018/19, from 7,100 to 7,809, which is consistent with current growth (NISRA, 2018).

Ireland

- Irelands population level is expected to increase by approximately 25% over the next thirty years.
- The CSO Census 2016 shows that younger people who had finished full time education were significantly better educated than older people. In total 56.2% of people aged 15 to 39 possessed a third level qualification, in comparison to 18.9% of those aged 65 and over.

Weaknesses and Threats

Northern Ireland

- Access to local rural transport services can be limited in terms of routes and frequency; rural transport provision is often uncoordinated therefore limiting the movement of people and by extension the level of available economic opportunity.
- Around 350,000 (19%) people in Northern Ireland live in relative income poverty (before housing costs) including approximately 107,000 (24%) children. Approximately 16% of people (approx. 303,000) in Northern Ireland live in absolute poverty before housing costs. This can be further broken down to 21% of children, 12% of pensioners and 16% of the working age population (Department for Communities, 2020).
- Deprivation in Northern Ireland varies geographically with a tendency for more deprived areas to the west, north and south and in Belfast. Areas around Belfast appear to experience lower levels of deprivation. The NIMDM is particularly revealing in that it shows the vast majority of the country (outside of urban areas such as Belfast) being extremely deprived in terms of proximity to services.
- The employment rate in Northern Ireland over the period April – June 2020 was at 71.7% (NISRA Labour Force survey), lower than the UK average of 76.6% (ONS, 2020).

² Data pre-dates the Covid-19 pandemic

- The Northern Ireland economic inactivity rate (the proportion of people aged from 16 to 64 who were not working and not seeking or available to work) increased over the quarter (0.6pps) and over the year (0.9pps) to 26.4%.
- 13% of Northern Ireland's population of working age have no formal level of education.

Ireland

- According to the Regional SDGs Ireland 2017, the percentage of Irish people living in consistent poverty in 2017 was 6.7%, up from 4.2% in 2008. The consistent poverty rate for the unemployed in 2017 was 24.1%, up from 9.7% in 2008. Children remain one of the most vulnerable age group with 8.8% living in consistent poverty in 2017.
- As of August 2020, the number of people unemployed in Ireland was 119,800 giving an unemployment rate of 5.2% (CSO 2020). This is a rise from 4.9% in August 2019 and 5.1% in July 2020.

Soil and Land Use

Strengths and Opportunities

Northern Ireland

- The Northern Ireland government, Crown Estate and charities own considerable areas of land, much of it managed for conservation purposes. Most land, however, is owned by private landowners, primarily farmers.
- Northern Ireland has significant natural resources such as carbon rich soils (including substantial peatland) and high-quality grassland cover available to capture carbon.
- The Nitrate Action Programme (NAP) 2019-2022 has been introduced with the aim to improve soil and water pollution from agricultural sources with the expectation that soil phosphorus concentrations will decline in the long-term.
- Peatland covers 18% of the land area of Northern Ireland (NIEA, 2019). To improve their condition, 3000+ha of restoration including 25 Conservation Action Plans are being implemented to help move sites towards favourable conservation status. (NIEA, 2019).
- At the end of 2019, 46,000 hectares of land in Northern Ireland was under agri-environment scheme agreement managed through the Northern Ireland Countryside Management Scheme (NICMS), the Environmentally Sensitive Areas Scheme (ESAS) and the Organic Farming Scheme (OFS) (DAERA and NIEA, 2020).
- In 2019/20, 167 hectares of new woodland (47 ha conifer and 120 ha Broadleaf) was planted and part funded by the European Commission under the 2014 - 2020 Rural Development Programme.
- Northern Ireland is, for its size, one of the most geologically diverse regions in the world (DOE, 2015). Geological sites have historical, educational, recreational and landscape value.

Ireland

- Irish land cover is primarily agricultural, followed by bogs, wetlands and forestry. Ireland is of international importance for peatlands. 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).

- In 2016, approximately 64% of Ireland's land was suitable for agriculture, with a further 11% used for forestry (CSO, 2020). Irish soil quality is good overall as it has been protected from the late introduction to the industrial revolution. With 79.7% of land under permanent pasture, there is very little pressure from reduction in soil organic matter in these areas (EIP-AGRI, 2014).
- Forest cover is now estimated to be at its highest level in over 350 years at 770,000 ha (DAFM, 2020). Farmers have accounted for 82% of private lands afforested between 1980 and 2018.
- Ireland has a notably diverse geology that is prospective for a wide range of mineral deposits.

Weaknesses and Threats

Northern Ireland

- The majority of peatlands in Northern Ireland are classified as unfavourable condition, degraded or modified. 90% of lowland raised bogs have been lost or altered due to peat extraction, forestry and drainage (which also affect upland bogs). Nutrient enrichment is also evident, and the quality of habitats has been affected.
- There is a lack of agricultural activity on land currently classified as less favoured which increases the risk of land abandonment as it is not economically viable for landowners to farm these areas without substantial funding.
- In 2015/16, there were slightly more soils that were either under or over-enriched with phosphorus compared to 2010/11 (DAERA and NIEA, 2018).
- Northern Ireland has the lowest level of tree cover (8.5%) of any UK regional territory or European member state (Rowland, et. al., 2017).
- Although Northern Ireland is geographically diverse, potential threats to geological sites include landfill, coastal defence work and changes to natural systems (including human-induced changes).
- Northern Ireland, like other parts of the UK, has a legacy of land affected by contamination, often arising from its past industrial use. It is not known how much land is contaminated, although records estimate that there are over 11,000 sites across Northern Ireland that have had some form of previous industrial use (DAERA, 2018).

Ireland

- The number of contaminated land sites is estimated at between 2,000 and 2,500 mostly in the petroleum retail sector, industrial sites, closed landfill, timber treatment yards, scrap yards, railway yards and former gasworks.
- There is an increasing pressure on soil, particularly from land use changes, intensification of agriculture, erosion and overgrazing, afforestation, industry and urbanisation.
- Geohazards can cause widespread damage to landscapes, wildlife, human property and human life and landslides are the most prevalent of these hazards in Ireland (Geological Survey Ireland, 2020).

Water

Strengths and Opportunities

Northern Ireland

- In 2015, 32.7% of Northern Ireland river waterbodies were classified as 'high' or 'good' quality. In 2018, 31.3% of Northern Ireland river water bodies were classified as 'good' or better.
- Of the three main river basins in Northern Ireland – Neagh Bann, North West and North East – water quality is noticeably better in the North West.
- In 2012, 2.8% of salmonid river length failed to meet the standards set by the Freshwater Fish Directive, compared to 9.4% failure rate recorded in 2004 (NIEA, 2014).
- Under the Nitrates Directive, NIEA must monitor surface waters for nitrate pollution against a mandatory standard of 50 mg NO₃/l (Nitrogen per litre). In 2018, 99.6% of sites had an annual mean concentration of less than 25 mg NO₃/l (DAERA and NIEA, 2020).
- In 2018, 5 of the 21 lake water bodies in Northern Ireland were classified as 'good' or better and 16 lake water bodies were classified as 'moderate' or worse. This is unchanged from the 2015 classification.
- Concentration of groundwater nitrates across Northern Ireland are generally low with 51 of 54 (94%) stations below 25 mg NO₃/l in 2018 (i.e., less than half of the permitted maximum level) (DAERA and NIEA, 2020).
- Compliance of Wastewater Treatment Works against the numeric conditions of their Water Order consent is a key performance indicator for the water utility sector and has continued to improve since 2007 having reached 99% in 2019 (DAERA and NIEA, 2020).
- Drinking water quality remains at the highest level of compliance since 2004, at 99.9% of public drinking water and 99.11% of private water supplies (NIEA, 2019).
- Based on 2019 data, 14 of the 26 bathing water monitored in Northern Ireland met the 'excellent' standard, 9 met the 'good' standard and only 3 beaches were classified as 'sufficient' and none as 'poor'.
- Ten areas have been designated as shellfish water protected areas for the protection of shellfish growth and production (DAERA, 2020)

Ireland

- Ireland has a relatively abundant supply of fresh water, which constitutes a key resource in economic, amenity and aesthetic terms. Around 50% of the land area is drained by nine river systems.
- The cross-border region contains a wealth of freshwater habitats supporting stocks of game and coarse fish, including rivers and a significant number of lakes that straddle the border between Ireland and Northern Ireland. These shared waterbodies contain valuable fisheries habitats and support a wide range of aquatic species. They are also a valuable angling resource and contribute significantly to the value of tourism in these areas (Inland Fisheries Ireland, 2020).
- The Government has published the River Basin Management Plan for Ireland 2018-2021. The Plan sets out the actions that Ireland will take to improve overall water quality and achieve 'good' ecological status in water bodies (rivers, lakes, estuaries and coastal waters) by 2027.

- The levels of seriously polluted river water has fallen from an average annual 0.9% in 1987-1990 to 0.2% in 2016-2018 (CSO, 2020).
- In 2019, 89.1% of bathing water sites surveyed had good water quality and 95.2% had sufficient water quality.
- In 2019, 92% of groundwater bodies, 80% of coastal waters, 53% of rivers, 50% of lakes and 38% of estuaries were found to be of satisfactory quality.
- Groundwater quality monitoring stations over the period 1995-2019 showed there was an increase in the proportion of samples showing low volumes of nitrates in watercourses (CSO, 2020).

Weaknesses and Threats

Northern Ireland

- In 2018, 16 lake water bodies in Northern Ireland were classified as 'moderate' or worse in terms of their water quality.
- The compliance rate for private sewage was 72% in 2019, which shows a decrease in compliance since 2010 which recorded a high of 88%. The compliance rate for trade effluent has decreased from 98% in 2018 to 93% in 2019.
- The standards set by the Directive were not met by 27.6% of cyprinid river length in 2012 compared to the 15.1% of river length failure recorded in 2004 (NIEA, 2014).
- In 2018, 1,793 incidents were reported to NIEA or discovered by NIEA during inspections, of which 924 (51.5%) were substantiated as having an impact on the water quality of the receiving waterway. This was an increase of 6% over the previous year. Farming was identified to account for the largest proportion of substantiated incidents investigated (DAERA and NIEA, 2020).

Ireland

- The percentage of unpolluted river water decreased from an average annual 77.3% in 1987-1990 to 66.2% in 2016-2018.
- The percentage of slightly polluted river water has increased from an average annual 12.0% in 1987-1990 to 22.4% in 2016-2018 (CSO, 2020).
- The proportion of moderately polluted river water increased from an average annual 9.7% in 1987-1990 to 11.2% in 2016-2018 (CSO, 2020).
- The number of seriously polluted river water bodies has risen from 6 to 9 (EPA, 2019).
- Overall there has been a net 4.4% decline in the quality of surface water bodies since the last assessment period 2010-2015. In particular is the decline in high status water bodies, from 12.9% in the assessment period 2007-2009 to 8.5% in the current assessment period (EPA, 2019).
- The main significant pressures impacting water quality in Ireland include agriculture, wastewater discharges, impacts to the physical habitat conditions including excess fine sediment (hydromorphology), and pressures from forestry activities (EPA, 2019).
- The Irish coast is vulnerable to tsunamis from submarine landslides and distant earthquakes and associated levels of coastal flooding are expected to be similar to those seen during storm surges (Geological Survey Ireland, 2020).
- Climate change is likely to have significant impacts on flooding and flood risk in Ireland due to rising sea levels, increased rainfall in winter, more heavy rain days and more intense storms (Government of Ireland, 2019).

Air Quality

Strengths and Opportunities

Northern Ireland

- Air quality in Northern Ireland has improved considerably over the last few decades.
- Monitoring data from 2018 determined that EU limit values, target values and corresponding Air Quality Standard (AQS) objectives have been met by the due dates for particulate matter as PM₁₀ and PM_{2.5}, carbon monoxide, benzene, sulphur dioxide and metallic pollutants (lead, arsenic, cadmium and nickel) (DAERA, 2020).
- Although there are still some exceedances of the AQS for nitrogen dioxide (NO₂), the annual mean NO₂ concentration across urban background and urban roadside sites have fallen since 2012 (DAERA, 2020). The annual mean concentration of PM₁₀ across urban areas has also fallen (DAERA and NIEA, 2020).

Ireland

- Ireland's air quality is generally good in comparison with other European states, largely due to its position on the fringe of Western Europe, with a relatively mild climate and an almost continuous movement of clean Atlantic air over the country.
- Monitoring of key pollutants in 2018 shows that Ireland continues to meet the EU air quality standards for most pollutants such as PM₁₀, PM_{2.5}, NO₂, ozone, polycyclic aromatic hydrocarbons (PAH) and Dioxins (EPA, 2019).
- The EPA's latest Informative Inventory Report 2020 estimated an overall reduction in emissions between 1990 and 2018 (EPA, 2020).

Weaknesses and Threats

Northern Ireland

- There are 19 Air Quality Management Areas (AQMAS) in Northern Ireland, mainly designated for NO₂ from road traffic, with two designated for PM₁₀.
- Monitoring data from 2018 determined that the AQS for NO₂, ozone and benzo[a]pyrene was exceeded for some or all of the monitoring sites where they are monitored (DAERA, 2020).
- Ammonia emissions increased by 8.7% from 2001 to 2018, mainly due to emissions from agriculture (DAERA and NIEA, 2020).

Ireland

- Wood and peat burning is emerging as a potentially significant contributor to PAH and PM levels, along with a wide variety of other solid fuel products that are on the market (EPA, 2016).
- When compared to the more stringent WHO guidelines and EEA reference level values, ozone, PM and PAH are pollutants of concern in the short term, while NO₂ is projected to increase due to increase in road traffic (EPA, 2016).
- The EPA's latest Informative Inventory Report 2020 estimated ammonia emissions to have increased by approximately 7.9% between 1990 and 2018, primarily due to emissions from agriculture and is estimated to be non-compliant with the emission reduction target set by the National Emissions Ceiling Directive (NECD) (2016/2284) (EPA, 2020). The report predicts that NOX and NMVOCs

would not meet the 2020 emission reduction targets and that NMVOCs would not meet the 2030 emission reduction target either (EPA, 2020).

Climate Change

Strengths and Opportunities

Northern Ireland

- The first Northern Ireland Climate Change Adaptation Programme was published in 2014 and covers the period 2014-2019. The programme identified four primary areas for action including flooding, water, the natural environment and agriculture and forestry.
- Northern Ireland's total GHG emissions have reduced by 15.9% since 1990. The largest contributors to GHG emissions in Northern Ireland in 2016 were the agriculture, transport, energy supply and business sectors.
- The electricity generation mix will change in Northern Ireland. Electricity generation from coal was unchanged from 2015 to 2016 but fell by 0.8 TWh (-35%) from 2016 to 2017. Electricity generation is changing with the closure of coal fired power stations in line with UK government policy to end coal-fired generation in Great Britain by 2025.
- Total GHG emissions from the residential sector in Northern Ireland accounted for 13% of Northern Ireland's total GHG emissions in 2016, a decrease of 28.6% from the base year (DAERA, 2018).
- The NISRA *Electricity Consumption and Renewable Generation* bulletin for the year ending March 2020 indicated that over the assessment period 46.8% of electricity consumption in Northern Ireland was from indigenous renewable sources, a 3.9% increase on the previous reporting period.

Ireland

- Total greenhouse gas emissions have been decreasing due to increased energy efficiency and increased share of renewables (EPA, 2020).

Weaknesses and Threats

Northern Ireland

- Northern Ireland is already seeing a number of changes as a result of climate change, including changes in the growing, breeding and migration seasons, shifts in species abundance and diversity and changing weather patterns with the potential for more floods and droughts.
- Transport emissions in 2016 were 29% higher than in 1990, and represented 22% of all emissions in Northern Ireland in 2016 (BEIS, 2018). Emissions from the transport sector tend to be large as a result of increasing population and increasing demand for transportation despite improvements in energy efficiency of vehicles.
- Northern Ireland represents a higher than average per capita share of UK domestic emissions. The reason for this is the comparatively limited availability of natural gas resulting in the high consumption of coal, burning oil and gas oil in the residential sector (BEIS, 2018).

Ireland

- Energy consumption accounted for 59% of Ireland's greenhouse gas emissions in 2018. Transport, households and industry accounted for the highest shares.

CO₂ from burning fossil fuels accounted for just under 60% of all greenhouse gas emissions in Ireland in 2018.

- In 2018 agriculture was responsible for 33% of all greenhouse gas emissions, and for 45% of all non-ETS greenhouse gas emissions (Sustainable Energy Authority of Ireland (SEAI), 2020).
- The biggest source of greenhouse gas emissions in Ireland is CO₂ emissions from the burning of fossil fuels in the non-ETS sector, for example in homes and cars. These made up 38% of all greenhouse gas emissions in Ireland in 2018, and 50% of all non-ETS greenhouse gas emissions.
- Ireland will miss the target set for the period 2013 to 2020 for renewables by about one eighth and for cumulative emissions by a little under 5%.
- Recent growth in emissions, particularly from industry, agriculture and transport will put Ireland on a trajectory to be over 25% off target for the next 2021-2030 period.
- Overall renewable energy supply was 11% of gross final consumption in 2018 but has a binding EU target of 16% by 2020 (SEAI, 2019).
- The share of renewable transport energy in 2018 was 7.4%, Ireland has a binding EU target of 10% by 2020 (SEAI, 2019).

Material Assets

Strengths and Opportunities

Northern Ireland

- Northern Ireland has significant natural resources such as water, carbon rich soils and high quality grassland, whilst natural resources are also available for renewable energy generation e.g. wind, hydro, marine, biomass and solar.
- Northern Ireland is underlain by extensive deposits of economically valuable minerals.
- A variety of industrial minerals are present in Northern Ireland.
- Municipal waste has fallen compared to its peak in 2007 (CSO, 2020).
- Recycling rates continue to improve in Northern Ireland, with increase in municipal waste recycling and recovery rate of packaging waste (DAERA and NIEA, 2020m and NISRA, 2020).

Ireland

- Ireland has significant natural resources such as water, carbon rich soils and high quality grassland, whilst natural resources are also available for renewable energy generation e.g. wind, hydro, marine, biomass and solar.
- Ireland has significant mineral deposits. Exploration has been undertaken for PGM minerals, rare earth and speciality minerals, nickel and chromite and diamonds. Gypsum, dolomite, brick shale, fireclay, marble, granite and limestone are all currently exploited in Ireland.
- Landfill disposal has fallen sharply, recycling rates increased steadily in the early 2000s before plateauing, while the share of waste sent for energy recovery has risen markedly since 2011. Ireland is on track to meet its EU 2020 targets for municipal and construction waste.
- Ireland recycled 31% of waste plastic packaging in 2018, exceeding the current Packaging Directive target of 22.5%.

Weaknesses and Threats

Ireland

- Ireland's recycling rate for municipal waste declined to 38% in 2018 down from 40% in 2017 (EPA, 2018).
- Ireland is currently some distance short of the revised Packaging Directive's more ambitious plastic packaging recycling targets of 50% for 2025 and 55% for 2030.
- Ireland is heavily reliant on export markets, particularly for recycling (EPA, 2018).

Historic Environment

Strengths and Opportunities

Northern Ireland

- Northern Ireland has more than 35,000 cultural heritage assets including archaeological sites, monuments and buildings which provide evidence of settlement, agricultural, industrial and ritual activity. Along with one UNESCO World Heritage Site.
- As of 2019, there are a total of 2,008 scheduled monuments including settlements, defences, workplaces, routeways and sites for ritual and burial (DfC, 2019). Scheduled monuments are managed by their owners under guidance from DfC HED and their condition is actively monitored as an ongoing process by HED.
- As of 2019 there are 8,976 listed buildings in Northern Ireland, designated for their special architectural or historic interest (DfC, 2019). Where engagement with owners of listed buildings 'At Risk' has failed to prompt action, Councils have powers to serve an Urgent Work Notice to arrest further damage to the building.
- The Sites and Monuments Record (NISMR) holds information on around 16,875 archaeological sites and historic monuments which includes 832 Maritime Heritage Record sites (DfC, 2019).
- As of 2019 there are more than 16,600 sites recorded on Industrial Heritage Record and 738 sites on the Defence Heritage Record (DfC, 2019).
- There are 340 known wreck sites, including 2 protected wrecks (DfC, 2019).
- The Northern Ireland Heritage Gardens Archive holds records of over 700 historic parks, gardens and demesnes (manorial estates) which have been an important feature of the countryside for three centuries (DfC, 2019).
- Ten areas of particularly distinctive historic landscape character have been designated as Areas of Significant Archaeological Interest and there are 399 Historic Nucleated Urban Settlements and 60 Conservation Areas (DfC, 2019).

Ireland

- There are almost 1000 individual monuments at 768 locations under state care. The Record of Monument and Places (RMP) is a statutory list of all known archaeological monuments provided for in the National Monuments Acts. There are over 140,000 Recorded Monuments on the RMP (National Monuments Service, 2020).
- Ireland has two UNESCO World Heritage Sites.
- The DCHG is currently developing Ireland's new national heritage plan; Heritage Ireland 2030, which is due to be published later in 2020 (DCHG, 2020).

Weaknesses and Threats

Northern Ireland

- In 2018/19, there were 527 listed buildings and structures on the Heritage at Risk register, an increase of 15 compared to 2017/18 (DAERA and NIEA, 2020).
- Northern Ireland's historic environment has been put under pressure from economic regeneration which has in places resulted in impacts to historic character within towns and cities, sometimes negative, through the removal of assets or impacts on their settings (DfC HED, 2020).
- The historic environment is also coming under pressure from climate change (DfC HED, 2020).

Ireland

- Climate change is seen as a big threat to Ireland's heritage. The Built & Archaeological Heritage Climate Change Sectoral Adaption Plan (DCHG, 2019) has recently been published, which acknowledges the vulnerability of Ireland's built and archaeological heritage.

Landscape

Strengths and Opportunities

Northern Ireland

- Northern Ireland has an unspoilt and high quality rural landscape, numerous protected area designations and major rural tourism attractions.
- There are eight areas designated as Areas of Outstanding Natural Beauty (AONB) making up 20% of its total land.
- Landscape character areas (of which there are 130 across Northern Ireland) are defined as areas with a distinct and recognisable pattern of elements that occur consistently in a particular type of landscape. Enclosed farmland is the most common broad habitat in Northern Ireland, covering an estimated 44% of the total land area, with the majority consisting of improved grassland (DOE, 2015).
- Seascape character areas are defined as "*a unique geographic area of land, intertidal and marine area with a recognisable sense of place and identity*". Twenty-four seascape character areas are identified in Northern Ireland (NIEA, 2014).
- Semi-natural grasslands cover an estimated 18.5% of Northern Ireland's land area (DOE, 2015), alternatively the UK Land Cover Map 2015 puts the estimate at 5.8% with improved grassland covering 57.3% (Rowland, et al., 2017).
- Mountains, moorlands and heaths contain the largest tracts of semi-natural habitats and cover an estimated 13% of Northern Ireland.
- Northern Ireland is notable within the UK for its large area of freshwater habitats; rivers, lakes and wetlands cover an estimated 4.2% of total land area.
- Urban areas cover approximately 7.5% of Northern Ireland and increased by approximately 30% between 1998 and 2007 (UK NEA, 2011).
- Northern Ireland has some very specific historic landscape characteristics, such as ancient administrative townland boundaries and historic parish boundaries.

Ireland

- There are six areas designated and recognised as nationally important landscapes within Ireland. All of these are National Parks.
- The National Landscape Strategy was published in 2015 ongoing to 2025 which will be used to ensure compliance with the European Landscape Convention
- In 2010 the agricultural census stated that Ireland's land cover consists of around 64% or 4.44 million hectares of agriculture.
- Ireland forestry land cover has increased from 6.8% in 1990 to 11% in 2016.
- A draft Regional Seascape Character Assessment has recently been published which identified 13 distinct seascape character types (6 of which are off the border counties) and 15 regional seascape character areas (4 of which are off the border counties) and the two border local scale seascape character areas (Marine Institute, 2020).
- Ireland has some specific historic landscape characteristics, such as ancient administrative townland boundaries and historic parish boundaries.

Weaknesses and Threats

Northern Ireland

- There are no national parks in Northern Ireland, in March 2011 the DOE published a White Paper enabling legislation to allow for the creation of national parks. However in 2013 the Environment Minister's statement 'shelved' the National Parks Plan (Northern Ireland Assembly, 2013).
- Particular issues affecting the landscape in Northern Ireland are agriculture and tourism. Landscapes in Northern Ireland have also been strongly affected by rural development, particularly single dwellings and their associated infrastructure, and windfarms / single turbines (e.g. in County Tyrone), as well as by agricultural intensification.

Ireland

- Grassland accounted for 58.4% of total land use in Ireland in 2018 down from 61.0% in 1990 (World Bank, 2016).
- The 2020 agricultural census has been postponed due to Covid-19 (CSO, 2020).

Natural Capital

Strengths and Opportunities

Northern Ireland

- The majority of Northern Ireland's 650 km of coastline is protected for its nature conservation interest and it includes productive and biologically diverse ecosystems, the features of which serve as critical natural defences against storms, floods and erosion.
- Northern Ireland's other habitats, particularly grassland and peatland are excellent carbon stores if managed appropriately, whilst the extensive hedgerow

networks across Northern Ireland provide connectivity through the landscape and minimise soil erosion (UK NEA, 2011).

- Biodiversity also plays a role in providing ecological networks and stepping-stone habitats. This connectivity is important and can be affected both positively and negatively through rural development.
- The importance of open space and outdoor recreation to people's physical and mental health and quality of life is recognised in the Regional Development Strategy for Northern Ireland 2025. Northern Ireland has developed Planning Policy Statement (PPS 8) - Open Space, Sport and Outdoor Recreation. This policy aims to safeguard existing open space, ensure that open space is considered in new developments and to ensure equal access by all to open space.
- Northern Ireland's annual tourism statistics 2018 (NISRA, 2019) suggests tourism has been increasing over the long term (although this is unlikely to be the case for 2020 due to Covid-19).
- Northern Ireland's high quality natural and cultural landscapes and authentic surroundings demonstrates the potential to increase the contribution tourism makes to the Northern Ireland economy.
- The social use of both state and non-state woodland in Northern Ireland is increasing.

Ireland

- The former Comhar Sustainable Development Council created a preliminary map of Green Infrastructure assets throughout Ireland revealed strong green infrastructure in western counties, uplands and coastal areas, with the water network providing widespread opportunities for connecting features.
- There are a number of studies being carried out to identify the value of natural assets, those carried out to date have identified the value or importance of freshwater systems, marine systems and animal pollination, to name a few (Feeley, H.B. et al, 2017, Norton, D. et al, 2018 and Stout, J.C. et al., 2019).
- Natural assets, including landscape and cultural heritage, are a significant draw for tourists. The scenery is seen as the single most important reason why people visit and holiday in Ireland (Heritage Council, 2006).
- The marine environment is hugely important to the bio-economy, transport, tourism and recreational sectors (Geological Survey Ireland, 2020).
- Ireland has three UNESCO Global Geoparks, which 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.

Weaknesses and Threats

Northern Ireland

- There is a disparity to public access to woodland in Northern Ireland, with most being located far from where people live (UK NEA, 2011).

4.5 Key Environmental and Sustainability Issues and Likely Future Trends

- 4.5.1 According to an annual survey carried out by NISRA, in 2019/20 78% of respondents were very or fairly concerned about the environment. Concern over climate change has been

increasing over the last two decades. According to the annual survey in 2019/20, 37% of responding households in Northern Ireland thought the most important environmental problem facing Northern Ireland is climate change. Back in 2003/04, only 13% of respondents stated climate change as the most important environmental problem.

- 4.5.2 The next most cited problems included illegal dumping of waste and pollution in rivers, which were cited by 28% of respondents. Poor recycling rates was cited by 23% of the respondents (DAERA and NIEA, 2020). A similar survey carried out by NISRA focusing on the attitudes of young people in Northern Ireland found (in 2010) that the greatest environmental concern was the loss of plants, animals and habitats (76% of respondents) (NISRA, 2011).
- 4.5.3 A survey conducted by the EC in 2014 found that approximately 56% of the survey respondents in Ireland felt that protecting the environment was very important, 38% felt that it was fairly important and 6% felt that it was not very or not at all important. The survey found that the environmental issue of most concern to the public in Ireland was water pollution, followed by waste, air pollution, the impact on health of chemicals used in everyday products and shortage of drinking water (EC, 2014).
- 4.5.4 The EPA's 2020 state of the environment report identified the following key environmental messages for Ireland:
- SOE 1 Environmental Policy Position: A national policy positive 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 & Wellbeing: Protecting the Environment is an Investment in Our Health and Wellbeing.
 - 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.
 - 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.

4.5.5 From analysis of the baseline data and discussions with environmental stakeholders, the key sustainability issues facing the PEACE PLUS areas are considered to be:

Ecology and Nature Conservation

Northern Ireland

- Continued loss of semi-natural habitat by agricultural conversion and building;
- Number of habitats and species in unfavourable condition;
- Declines in BAP habitats and priority species;
- The lack of data on the current status of peatland and amount of lowland raised bogs which has been lost or altered due to peat extraction, forestry and drainage; and
- Threats from agricultural intensification, over- and/or under-grazing, pollution, the spread of invasive species, the spread of urban development and associated infrastructure and climate change.

Ireland

- 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;
- Continuing decline in species and habitats outside of protected areas;
- Threats facing areas outside of protected areas;
- Threats on terrestrial, coastal and marine habitats through man-made pressures;
- Potential impacts of climate change; and
- Increasing problems of pests, diseases and invasive species.

Population, including Health, Quality of Life and Socio-economics

Northern Ireland

- High levels of obesity and overweight;
- Expected rise in mental health illnesses;
- Most of the country outside of urban areas is deprived in terms of proximity to services;
- Employment rate is lower than the UK average; and,
- Impacts of Covid-19.

Ireland

- High levels of obesity, particularly among the older population;
- Impacts of Covid-19;
- High levels of mental health illnesses amongst the population;
- Although the number of people achieving the minimum level of activity recommended by the National Guidelines is increasing, it is still low;
- The percentage of people living in consistent poverty has been rising; and
- The unemployment rate has been rising, which may be partly due to Covid-19.

Soil and Land Use

Northern Ireland

- The majority of peatlands in Northern Ireland are classified as unfavourable condition, degraded or modified;
- Lack of agricultural activity on land currently classified as less favoured which increases the risk of land abandonment;
- Absence of nutrient management plans on livestock farms which has likely contributed to the eutrophication of nearby watercourses; and
- Northern Ireland has the lowest level of tree cover compared to UK or European member state.

Ireland

- Increasing pressure on soil, particularly from land use changes, intensification of agriculture, erosion and overgrazing, afforestation, industry and urbanisation.

Water

Northern Ireland

- Only 31.3% of river waterbodies were classed as 'good' or better.
- 16 out of 21 lake water bodies were classified as 'moderate' or worse.
- The compliance rate for private sewage and trade effluent has decreased.
- Increase in flooding and coastal erosion is predicted with climate change.

Ireland

- Increase in number of slightly, moderately and seriously polluted rivers.
- Only 50% of lakes and 38% of estuaries were found to be of satisfactory quality.
- Impact on water quality from agriculture and waste water discharges and impacts to the physical habitat conditions from excess fine sediment (hydromorphology), and from forestry activities.
- Risk of increase in flooding predicted due to climate change.

Air Quality, Climate Change and Material Assets

Northern Ireland

- Continued exceedance of NO₂, ozone and benzo[a]pyrene concentrations at some monitoring sites;
- Increasing ammonia emissions from agriculture.
- Higher than average share of UK emissions considering its share of UK population; and
- Greenhouse gas emissions due to agricultural sector and over reliance on cars.

Ireland

- Localised air quality issues associated with NO₂ and PM;
- Wood and peat burning contribution to PAH and PM levels;
- Increasing ammonia emissions and non-compliance with the NECD emission targets;

- NOx and NMVOC emissions non-compliance with the NECD emission targets;
- Challenge in meeting more stringent WHO and EEA air quality reference guidelines;
- Higher greenhouse gas emissions compared to EU28 average;
- Ireland is due to miss greenhouse gas targets set for period 2013-2020 and is projected to miss 2021-2030 target as well mainly due to industry, agriculture and transport;
- Increase in flooding and coastal erosion is predicted with climate change

Historic Environment and Landscape

Northern Ireland

- Number of listed buildings and structures at risk has increased;
- The historic environment is facing pressure from economic regeneration and climate change; and
- Landscapes have been strongly affected by rural development, particularly single dwellings and their associated infrastructure, and windfarms / single turbines, as well as by agricultural intensification.

Ireland

- Vulnerability of built and archaeological heritage to impacts of climate change; and
- Landscapes have been affected by housing and infrastructure development, agricultural intensification, forestry and decline/ loss of natural and cultural features.

Natural Capital

Northern Ireland

- Lack of access to publicly available woodlands.

4.6 Information Gaps and Uncertainties

- 4.6.1 As indicated by the baseline section, a wealth of existing data exists about the state of Northern Ireland's and Ireland's environment. This is necessarily focused on national or regional levels and therefore it is acknowledged that the large-scale trends discussed may not in every case fully represent sub-regional circumstances.

5 THE PUBLIC CONSULTATION PROCESS

5.1 Consultation on the Environmental Report

- 5.1.1 The consultation version of this Environmental Report (including NTS) was presented for public and statutory consultation over the period 10 March 2021 to 12 May 2021, at the same time as the draft PEACE PLUS Programme.
- 5.1.2 The Northern Ireland Government has designated the DAERA as the statutory Consultation Body and delivery of this function is led by NIEA. The Environmental Report has also been issued to the relevant Consultation Bodies in Ireland. The purpose of this stage was 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 PEACE PLUS programme.
- 5.1.3 Consultation responses relating to the SEA and/or environmental aspects of PEACE PLUS Programme were received from the NIEA in Northern Ireland and the EPA, DECC, DAFM and DHLGH as well as various public stakeholders. These responses are reproduced in Appendix D, along with a comment on how they have been accounted for in the preparation of this Final Environmental Report. In line with the SEA Directive and Regulations, SEUPB must take account of the Environmental Report and of any opinions which are expressed upon it as it prepares PEACE PLUS Programme for adoption.

5.2 Modifications to the Programme following the Public Consultation

- 5.2.1 Since completion of the public consultation exercise in May 2021, the key Themes and Investment Areas have remained the same. Minor changes were made to Theme 5 IA4: Water Quality Improvement Programme, which entailed removing the drinking water elements.
- 5.2.2 In the process of consultation and post consultation it has been clarified that the Green Infrastructure in Theme 4 IA2 will be minimal and the PEACE PLUS programme will not fund rail tracks in Theme 5 IA6, but will focus on rolling stock.
- 5.2.3 Minor technical corrections have also been made to the programme that were not the result of public consultation. These corrections have not impacted upon the content of the themes or IAs and therefore do not change the assessment or its outcome.

6 CONSIDERATION OF ALTERNATIVES

6.1 The Process

- 6.1.1 Consideration of alternatives is a key feature of the SEA process as defined by the SEA Directive and the Northern Ireland SEA Regulations. In practical terms, it refers to possible alternative mechanisms for delivering the programme, and the assessment of the impacts of each of these options against the SEA objectives.
- 6.1.2 The UK and Ireland guidance on SEA recognises that it is not for the SEA to decide on the options to be considered. Instead this SEA focuses on the alternative delivery options actually considered in the preparation of the PEACE PLUS Programme; these have been identified by SEUPB, in collaboration with stakeholders and the SEA team.

6.2 Alternative Policy Options / Delivery Mechanisms

- 6.2.1 With European funded programmes such as the PEACE PLUS Programme, constraints on what practical alternatives exist are often restricted by the need to comply with pre-determined criteria set at a European level. This can have the effect of limiting the alternatives that are available to the programme makers.
- 6.2.2 The draft Common Provisions Regulation (CPR), ERDF and ETC Regulations³ include a total of 7 Policy Objectives and 45 Specific Objectives (i.e. those set out in the draft ERDF Regulations, plus 2 Interreg Specific Policy Objectives with their relevant 10 indicative Specific Objectives, 1 peace and reconciliation Specific Objective and 12 ESF specific objectives under Policy Objective 4). These are shown below in Table 6.1. The draft ETC regulations propose a Specific Objective within the Policy Objective 4 that specifically relates to the PEACE PLUS Programme. The Member States are required to ensure a concentration of funds on a limited number of policy aims, with a well-articulated intervention logic at the outset and measurement of results.

Table 6.1: Policy Objectives and Specific Objectives Based on the Draft Regulation and the Proposed Amendments

PO	Policy Objective	Specific Objective
1	A MORE COMPETITIVE AND SMARTER EUROPE by promoting innovative and smart economic	(i) Developing and enhancing research and innovation capacities and the uptake of advanced technologies.
		(ii) Reaping the benefits of digitisation for citizens, companies, research organisation and public authorities.
		(iii) Enhancing sustainable growth and competitiveness of SMEs and job creation in SMEs, including by productive

³ These regulations were adopted in June 2021, after the consultation taking place (for most up to date information on regulations, including policy objectives and specific objectives, refer to Official Journal of the European Union, L 231, 30 June 2021 in <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L:2021:231:TOC>)

PO	Policy Objective	Specific Objective
	transformation and regional ICT connectivity	investments.
		(iv) Developing skills for smart specialisation, industrial transition and entrepreneurship.
		(v) Enhancing digital connectivity
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 adaptation risk prevention and management, and sustainable urban mobility	(i) Promoting energy efficiency and reducing greenhouse gas emissions.
		(ii) Promoting renewable energy in accordance with the Renewable Energy Directive (EU) 2018/2001, including the sustainability criteria set out therein.
		(iii) Developing smart energy systems, grids and storage outside TEN-E.
		(iv) Promoting climate change adaptation and disaster risk prevention, resilience, taking into account eco-system based approaches.
		(v) Promoting access to water and sustainable water management.
		(vi) Promoting the transition to a circular and resource efficient economy.
		(vii) Enhancing protection and preservation of nature, biodiversity and green infrastructure, including in urban areas, and reducing all forms of pollution.
		(viii) Promoting sustainable multimodal urban mobility, as part of transition to a net zero carbon economy.
3	A MORE CONNECTED EUROPE by enhancing mobility	(i) Developing a sustainable, climate resilient, intelligent, secure, sustainable and intermodal TEN-T.
		(ii) Developing and enhancing sustainable, climate resilient, intelligent and intermodal national, regional and local mobility, including improved access to TEN-T and cross-border mobility.
4	A MORE SOCIAL AND INCLUSIVE EUROPE implementing the European Pillar of Social Rights	(i) Enhancing the effectiveness and inclusiveness of labour markets and access to quality employment through developing social infrastructure and promoting social economy.
		(ii) Improving equal access to inclusive and quality services in education, training and lifelong learning through developing accessible infrastructure, including by fostering resilience for distance and on-line education and training.

PO	Policy Objective	Specific Objective
		<p>(iii) Promoting the socioeconomic inclusion of marginalised communities, low income households and disadvantaged groups including people with special needs, through integrated actions including housing and social services.</p>
		<p>(iii –bis) Promoting the socio-economic integration of third country nationals, including migrants through integrated actions, including housing and social services.</p>
		<p>(iv) Ensuring equal access to health care and fostering resilience of health systems, including primary care and promoting the transition from institutional to family- and community-based care.</p>
		<p>(v) Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation.</p>
		<p>(vi) As per Article 14(3) in the ETC regulations:</p> <ul style="list-style-type: none"> a) Improving access to employment and activation measures of all jobseekers, in particular youth, especially through the implementation of the Youth Guarantee, long-term unemployed and disadvantaged groups on the labour market, and of inactive people, promoting self-employment and the social economy b) Modernising labour market institutions and services to assess and anticipate skills needs and ensure timely and tailor-made assistance and support to labour market matching, transitions and mobility c) Promoting a gender-balanced labour market participation, equal working conditions, and a better work/life balance including through access to affordable childcare, and care for dependent persons d) Promoting the adaptation of workers, enterprises and entrepreneurs to change, active and healthy ageing and a healthy and well-adapted working environment that addresses health risks e) Improving the quality, inclusiveness, effectiveness and labour market relevance of education and training systems including through validation of non-formal and informal learning, to support acquisition of key competences including entrepreneurial and digital skills, and by promoting the introduction of dual-training systems and apprenticeship f) Promoting equal access to and completion of, quality and inclusive education and training, in particular for disadvantaged groups, from early childhood education and care through general and vocational education and training, and to tertiary level, as well as adult education and learning, including facilitating learning mobility for all

PO	Policy Objective	Specific Objective
		<p>and accessibility for persons with disabilities</p> <ul style="list-style-type: none"> g) Promoting lifelong learning, notably flexible upskilling and reskilling opportunities for all taking into account entrepreneurial and digital skills, better anticipating change and new skills requirements based on labour market needs, facilitating career transitions and promoting professional mobility h) Fostering active inclusion with a view to promoting equal opportunities, non-discrimination and active participation, and improving employability, in particular for disadvantaged groups; i) Promoting socio-economic integration of third country nationals, including migrants; j) Promoting the socio-economic integration of marginalised communities such as Roma; k) Enhancing the equal and timely access to quality, sustainable and affordable services, including services that promote the access to housing and person-centred care including healthcare ; modernising social protection systems, including promoting access to social protection, with a particular focus on children and disadvantaged groups; improving accessibility including for persons with disabilities, effectiveness and resilience of healthcare systems and long-term care services l) Promoting social integration of people at risk of poverty or social exclusion, including the most deprived and children; <p>(vii) Peace and Reconciliation (specific to PEACE PLUS, as per ETC Regulation Article 14(2))</p>
5	<p>A EUROPE CLOSER TO ITS CITIZENS by fostering the sustainable and integrated development of all types of territories and local initiatives</p>	<ul style="list-style-type: none"> (i) Fostering the integrated and inclusive social, economic and environmental development, culture, natural heritage, sustainable tourism and security in urban areas. (ii) Fostering the integrated and inclusive social, economic and environmental local development, culture, natural heritage, sustainable tourism and security, in areas other than urban areas.
6	<p>INTERREG SPECIFIC OBJECTIVE: A BETTER COOPERATION GOVERNANCE</p>	<ul style="list-style-type: none"> (i) Enhance institutional capacity of public authorities, in particular those mandated to manage a specific territory, and of stakeholders (ii) Enhance efficient public administration by promoting legal and administrative cooperation and cooperation between citizens, civil actors and institutions, in particular with a view to resolving legal and other obstacles in border regions (iii) Building up mutual trust, in particular by encouraging people to people actions

PO	Policy Objective	Specific Objective
		(iv) Enhance institutional capacity of public authorities and stakeholders to implement macro-regional and sea-basin strategies, as well as other territorial strategies (v) Enhancing sustainable democracy and by supporting civil society actors and their role in reforming processes and democratic transitions (for Interreg B, C and D) (vi) Other actions to support “a better cooperation governance”
7	INTERREG SPECIFIC OBJECTIVE: A SAFER AND MORE SECURE EUROPE	Actions in the fields of border crossing management and mobility and migration management, including the protection and economic and social integration of third country nationals including migrants and beneficiaries of international protection (I) Border management infrastructure (II) Mobility and migration management (III) Protection and integration of migrants (including refugees) (I) Other actions to contribute to a safer and more secure Europe

6.2.3 The draft ETC Regulations state that in the case of the PEACE PLUS Programme between Northern Ireland and Border Counties of Ireland, funding should continue and build on the work of previous programmes. Taking into account its practical importance, it is necessary to ensure that, where the programme is acting in support of peace and reconciliation, it should also contribute to promoting social, economic and regional stability in the regions concerned, in particular through actions to promote cohesion between communities. In addition to this, more general requirements for cross-border cooperation programmes should be followed, including tackling common challenges identified jointly in the border regions, and to support growth potential in border areas as evidenced in the Communication of the Commission 'Boosting Growth and Cohesion in EU Border Regions' ('Border Regions Communication').

6.2.4 Different alternatives to be assessed in this SEA will consider relevant Policy Objectives and Specific Objectives in the Regulations, as well as different delivery mechanisms that SEUPB has considered during the Programme development process.

Alternative 1 – Do Nothing or ‘Zero’ Option

6.2.5 This possible alternative assumes that the current 2014-2020 Programmes (INTERREG VA and PEACE IV) will run its course and the new PEACE PLUS Programme will not be adopted in Northern Ireland and the Border Counties of Ireland. UK and Irish Government match funding would also be removed.

Alternative 2 – Continue with the PEACE IV and INTERREG VA Programmes 2014-2020

6.2.6 This alternative assumes that the current PEACE IV and INTERREG VA Programmes will be extended to the period 2014-2020, with the current priorities (listed below) continuing.

PEACE IV

- Thematic objective 09: Promoting social inclusion, combating poverty and any discrimination
 - Investment priority 9f: Promoting social and economic stability in the regions concerned, notably by actions to promote cohesion between communities
 - Shared Education: direct, sustained, curriculum-based contact between pupils and teachers from all backgrounds, through collaboration between schools from different sectors in order to promote good relations and enhance children's skills and attitudes to contribute to a cohesive society.
 - Children and Young People: enhancing the capacity of children and young people to form positive and effective relationships with others of a different background and making a positive contribution to building a cohesive society.
 - Young people aged 14-24
 - Local Authority Action Plans, Children and Young People 0-24
 - Shared Spaces and Services: creating a more cohesive society through an increased provision of shared spaces and services
 - Capital development to create new shared spaces
 - Victims & Survivors
 - Local Authority Shared Spaces Projects
 - Building Positive Relations: promoting positive relations characterised by respect, where cultural diversity is celebrated and people can live, learn and socialise together, free from prejudice, hate and intolerance
 - Local Authority Action Plans
 - Regional Level Projects

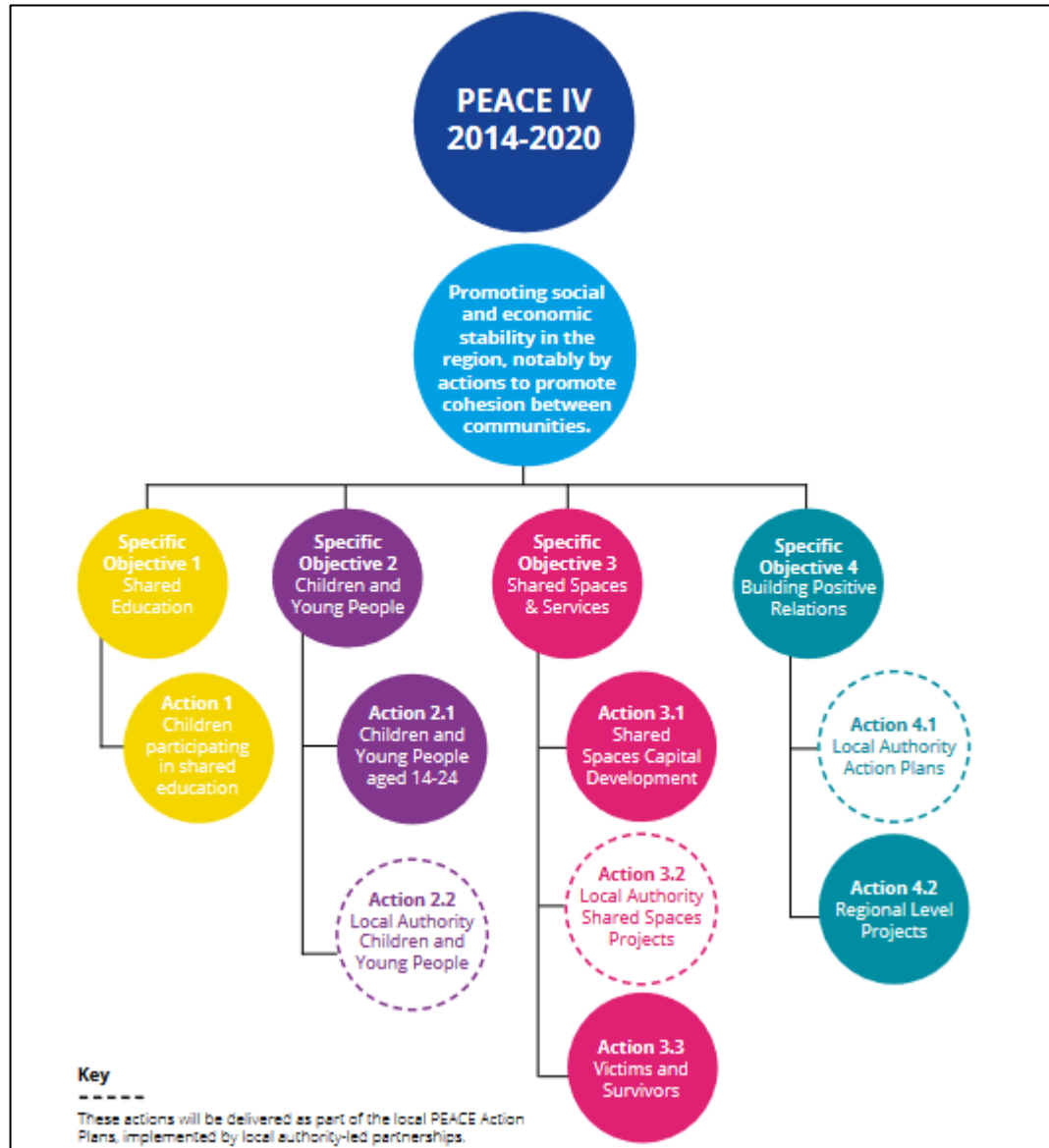


Figure 6.1: PEACE IV 2014-2020

INTERREG VA

- Thematic Objective 1 – Strengthening research, technological development and innovation
 - Investment priority 1.1: Enhancing research and innovation
 - Investment priority 1.2: Promoting business investment in R&I
- Thematic Objective 6 – Preserving and protecting the environment and promoting resource efficiency
 - Investment priority 2.1: Protecting and restoring biodiversity
 - Investment priority 2.2: Investing in the water sector
- Thematic Objective 7 – Promoting sustainable transport and removing bottlenecks in key network infrastructure

- Investment priority 3.1: Developing and improving environmentally-friendly and low carbon transport systems, including inland waterways and maritime transport, ports, multimodal links and airport infrastructure
- Thematic Objective 9 – Promoting social inclusion, combating poverty and any discrimination
 - Investment priority 4.1: Investing in health and social infrastructure



Figure 6.2: INTERREG VA 2014-2020

6.2.7 The proposals for CPR, ERDF and ETC Regulations for 2021-2027 (published in May 2018) made certain changes, including that 11 Thematic Objectives used in 2014-2020 have been simplified to the post 2020 Policy Objectives and also that PEACE PLUS will involve the continuation of both PEACE IV and INTERREG VA Programmes.

Alternative 3 – Draft Proposals as at June 2020

6.2.8 The proposals put forward by SEUPB as potential Programme content on 18th June 2020 incorporated 11 of the possible 22 Specific Objectives set out in the draft ERDF Regulations within Policy Objectives 1, 2, 3, 4 and 5; the peace and reconciliation Specific

Objective specific to the PEACE PLUS Programme within Policy Objective 4; and the Indicative Specific Objectives under the Policy Objective 6 (Interreg Specific Objective 1) of the draft ETC Regulations.

6.2.9 The selected Policy Objectives and Specific Objectives are presented in 6 Thematic Areas. The proposal is presented below:

- Thematic Area 1: Building Peaceful and Thriving Communities
 - Policy Objective 4: A More Social Europe Implementing the European Pillar of Social Rights
 - Specific Objective 4.7: Peace and Reconciliation
- Thematic Area 2: Delivering Economic Regeneration and Transformation
 - Policy Objective 1: A Smarter Europe by promoting innovative and smart economic transformation
 - Specific Objective 1.1: Enhancing research and innovation capacities and the uptake of advanced technologies
 - Specific Objective 1.3: Enhancing growth and competitiveness of SMEs, including by productive investments, and job creation in SMEs”
 - Specific Objective 1.4: Developing skills for smart specialisation, industrial transition and entrepreneurship
 - Policy Objective 3: A More Connected Europe by enhancing
 - Specific Objective 3.3: Developing and enhancing sustainable, climate resilient, intelligent and intermodal national, regional and local mobility, including improved access to TEN-T and cross-border mobility
 - Policy Objective 5: A Europe Closer to its Citizens by fostering the sustainable and integrated development of urban, rural and coastal areas and local initiatives
- Thematic Area 3: Empowering and Investing in our Young People
 - Policy Objective 4: A More Social Europe Implementing the European Pillar of Social Rights
 - Specific Objective 4.7: Peace and Reconciliation
- Thematic Area 4: Healthy and Inclusive Communities
 - Policy Objective 4: A More Social Europe Implementing the European Pillar of Social Rights
 - Specific Objective 4.3: Increasing the socio-economic integration of marginalised communities, migrants and disadvantaged groups, through integrated measures including housing and social services.
 - Specific Objective 4.4: Ensuring equal access to health care and fostering resilience of health systems, including primary care and promoting the transition from institutional to family- and community-based care.
 - Policy Objective 6: Interreg Specific Objective 1, “A Better Cooperation Governance”
- Thematic Area 5: Supporting Sustainable and Better Connected Future
 - Policy Objective 2: A Greener, Lower Carbon Europe by promoting clean and fair energy transition, green and blue investment, the circular economy, climate adaptation and risk prevention and management
 - Specific Objective 2.2: Promoting renewable energy

- Specific Objective 2.4: Promoting climate change adaptation, risk prevention and disaster resilience
 - Specific Objective 2.5: Promoting sustainable water management
 - Specific Objective 2.7: Enhancing nature protection and biodiversity, green infrastructure in particular in the urban environment, and reducing pollution
- Policy Objective 6: Interreg Specific Objective 1, “A Better Cooperation Governance”
- Thematic Area 6: Building and Embedding Partnership and Collaboration
 - Policy Objective 6: Interreg Specific Objective 1, “A Better Cooperation Governance”

Alternative 4 – Other Relevant Specific Objectives not put Forward in the June 2020 Proposals

6.2.10 The draft Regulations include a total of 7 Policy Objectives and 38 Specific Objectives. This alternative considers other Specific Objectives not put forward in the June 2020 draft proposals that could help deliver the aims set out by the EC for (cross-border) cooperation programmes.

- Policy Objective 1: A Smarter Europe by promoting innovative and smart economic transformation
 - Specific Objective 1.2: Reaping the benefits of digitisation for citizens, companies and governments
- Policy Objective 2: A Greener, Lower Carbon Europe by promoting clean and fair energy transition, green and blue investment, the circular economy, climate adaptation and risk prevention and management
 - Specific Objective 2.1: Promoting energy efficiency measures and reducing green-house gas emissions
 - Specific Objective 2.3: Developing smart energy systems, grids and storage outside TEN-E
 - Specific Objective 2.6: Promoting the transition to a circular economy
 - Specific Objective 2.8: Promoting sustainable multimodal urban mobility
- Policy Objective 3: A More Connected Europe by enhancing
 - Specific Objective 3.1: Enhancing digital connectivity
 - Specific Objective 3.2: Developing a sustainable, climate resilient, intelligent, secure and intermodal TEN-T
- Policy Objective 4: A More Social Europe Implementing the European Pillar of Social Rights
 - Specific Objective 4.1: Enhancing the effectiveness of labour markets and access to quality employment through developing social innovation and infrastructure
 - Specific Objective 4.2: Improving equal access to inclusive and quality services in education, training and lifelong learning through developing accessible infrastructure, including by fostering resilience for distance and on-line education and training
 - Specific Objective 4.5: Enhancing the role of culture and tourism in economic development, social inclusion and social innovation
 - Specific Objective 4.6: As per Article 14(3) in the ETC regulations:
 - enhancing the effectiveness of labour markets and improving access to quality employment across borders

- improving access to and the quality of education, training and lifelong learning across borders with a view to increasing the educational attainment and skills levels thereof as to be recognised across borders
 - enhancing the equal and timely access to quality, sustainable and affordable healthcare services across borders
 - improving accessibility, effectiveness and resilience of healthcare systems and long-term care services across borders
 - promoting social inclusion and tackling poverty, including by enhancing equal opportunities and combating discrimination across borders
- Policy Objective 5: A Europe Closer to its Citizens by fostering the sustainable and integrated development of urban, rural and coastal areas and local initiatives
 - Policy Objective 6: Interreg Specific Objective 1, “A Better Cooperation Governance”
 - Policy Objective 7: Interreg Specific Objective 1, “A safer and more secure Europe”

6.2.11 Given the thematic concentration requirements to ensure focusing the funds in a reduced number of activities, it would not be realistic for SEUPB to choose all of the Specific Objectives as set out in Alternative 4.

Alternative 5 – Proposal as Presented in December 2020 - February 2021

6.2.12 Alternative 5 comprises the programme as currently proposed and as described fully in Section 2.

6.2.13 This proposal incorporated 10 of the possible 22 Specific Objectives set out in the draft ERDF Regulations within Policy Objectives 1, 2, 3 and 4; the peace and reconciliation Specific Objective specific to the PEACE PLUS Programme within Policy Objective 4; and the Indicative Specific Objectives under the Policy Objective 6 (Interreg Specific Objective 1) of the draft ETC Regulations.

6.2.14 The selected Policy Objectives and Specific Objectives are presented in six Thematic Areas. The proposal is presented below:

- Theme 1: Building Peaceful and Thriving Communities
 - Policy Objective 4: A More Social and Inclusive Europe Implementing the European Pillar of Social Rights
 - Specific Objective 4.7: Peace and Reconciliation, this Specific Objective will focus on:
 - Co-designed Local Community Peace Action Plans
 - Empowering Communities
 - Building Positive Relations
 - Re-Imaging Communities
- Theme 2: Delivering Economic Regeneration and Transformation
 - Policy Objective 1: A More Competitive and Smarter Europe by promoting innovative and smart economic transformation and regional ICT connectivity.
 - Specific Objective 1.1: Developing and enhancing research and innovation capacities and the uptake of advanced technologies
 - Innovation Challenge Fund

- Specific Objective 1.2: Reaping the benefits of digitisation for citizens, companies, research organisation and public authorities
 - Smart Towns and Villages
 - Specific Objective 1.3: Enhancing sustainable growth and competitiveness of SMEs and job creation in SMEs, including by productive investments
 - SME Development and Transition
 - Specific Objective 1.4: Developing skills for smart specialisation, industrial transition and entrepreneurship
 - Programme Area Skills Development
 - Theme 3: Empowering and Investing in our Young People
 - Policy Objective 4: A More Social and Inclusive Europe Implementing the European Pillar of Social Rights
 - Specific Objective 4.7: Peace and Reconciliation, this Specific Objective will focus on:
 - Shared Learning Together Programme
 - PEACE Plus Youth Programme
 - Youth Mental Health and Wellbeing
 - Theme 4: Healthy and Inclusive Communities
 - Policy Objective 4: A More Social and Inclusive Europe Implementing the European Pillar of Social Rights
 - Specific Objective 4.4: Ensuring equal access to health care and fostering resilience of health systems, including primary care and promoting the transition from institutional to family- and community-based care.
 - Collaborative Health and Social Care
 - Specific Objective 4.7: Peace and Reconciliation, this Specific Objective will focus on:
 - Rural Regeneration and Social Inclusion
 - Victim and Survivors
 - Theme 5: Supporting Sustainable and Better Connected Future
 - 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 adaptation and risk prevention and management and sustainable urban mobility
 - Specific Objective 2.2: Promoting renewable energy in accordance with the Renewable Energy Directive (EU) 2018/2001, including sustainability criteria set out therein
 - Geothermal Energy Demonstration Programme
 - Specific Objective 2.4: Promoting climate change adaptation and disaster risk prevention, resilience, taking into account eco-system based approaches
 - Marine and Coastal Management
 - Specific Objective 2.5: Promoting access to water and sustainable water management
 - Water Quality and Catchment Management
 - Water Quality Improvement Programme

- Specific Objective 2.7: Enhancing protection and preservation of nature, biodiversity, and green infrastructure, including in urban areas, and reducing all forms of pollution
 - Biodiversity, Nature Recovery & Resilience
 - Policy Objective 3: A More Connected Europe by enhancing mobility
 - Specific Objective 3.1: Developing a sustainable, climate resilient, intelligent, secure, sustainable and intermodal TEN-T
 - Enhanced Sustainable Travel Connectivity
- Theme 6: Building and Embedding Partnership and Collaboration
 - Policy Objective 6: Interreg Specific Objective 1, “A Better Cooperation Governance”, this Specific Objective will focus on:
 - Strategic Planning and Engagement
 - Maintaining and Forging Relationships between Citizens

Alternative 6 – Other Relevant Specific Objectives not put Forward in the December 2020 - February 2021 Proposal

6.2.15 The draft Regulations include a total of 7 Policy Objectives and 45 Specific Objectives. This alternative considers other Specific Objectives not put forward in the December 2020-February 2021 proposal that could help deliver the aims set out by the EC for (cross-border) cooperation programmes.

- Policy Objective 1: A More Competitive and Smarter Europe by promoting innovative and smart economic transformation and regional ICT connectivity.
 - Specific Objective 1.5: Enhancing Digital Connectivity
- 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 adaptation and risk prevention and management and sustainable urban mobility.
 - Specific Objective 2.1: Promoting energy efficiency and reducing greenhouse gas emissions
 - Specific Objective 2.3: Developing smart energy systems, grids and storage outside TEN-E
 - Specific Objective 2.6: Promoting the transition to a circular economy and resource efficient economy
 - Specific Objective 2.8: Promoting sustainable multimodal urban mobility, as part of transition to a net zero carbon economy
- Policy Objective 3: A More Connected Europe by enhancing mobility
 - Specific Objective 3.2: Developing and enhancing sustainable, climate resilient, intelligent and intermodal national, regional and local mobility, including improved access to TEN-T and cross-border mobility
- Policy Objective 4: A More Social and Inclusive Europe Implementing the European Pillar of Social Rights
 - Specific Objective 4.1: Enhancing the effectiveness and inclusiveness of labour markets and access to quality employment through developing social infrastructure and promoting social economy
 - Specific Objective 4.2: Improving equal access to inclusive and quality services in education, training and lifelong learning through developing accessible infrastructure, including by fostering resilience for distance and on-line education and training

- Specific Objective 4.3: promoting the socioeconomic inclusion of marginalised communities, low income households and disadvantaged groups including people with special needs, through integrated actions including housing and social services.
- Specific Objective 4.3(bis): promoting socio-economic integration of third country nationals, including migrants through integrated actions, including housing and social services
- Specific Objective 4.5 Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation
- Specific Objective 4.6: ESF Plus Specific Objectives, as per Article 14(3) in the ETC regulations:
 - Improving access to employment and activation measures of all jobseekers, in particular youth, especially through the implementation of the Youth Guarantee, long-term unemployed and disadvantaged groups on the labour market, and of inactive people, promoting self-employment and the social economy
 - modernising labour market institutions and services to assess and anticipate skills needs and ensure timely and tailor-made assistance and support to labour market matching, transitions and mobility
 - promoting a gender-balanced labour market participation, equal working conditions, and a better work/life balance including through access to affordable childcare, and care for dependent persons
 - promoting the adaptation of workers, enterprises and entrepreneurs to change, active and healthy ageing and a healthy and well-adapted working environment that addresses health risks
 - improving the quality, inclusiveness, effectiveness and labour market relevance of education and training systems including through validation of non-formal and informal learning, to support acquisition of key competences including entrepreneurial and digital skills, and by promoting the introduction of dual-training systems and apprenticeship
 - promoting equal access to and completion of, quality and inclusive education and training, in particular for disadvantaged groups, from early childhood education and care through general and vocational education and training, and to tertiary level, as well as adult education and learning, including facilitating learning mobility for all and accessibility for persons with disabilities
 - promoting lifelong learning, notably flexible upskilling and reskilling opportunities for all taking into account entrepreneurial and digital skills, better anticipating change and new skills requirements based on labour market needs, facilitating career transitions and promoting professional mobility
 - fostering active inclusion with a view to promoting equal opportunities, non-discrimination and active participation, and improving employability, in particular for disadvantaged groups;
 - promoting socio-economic integration of third country nationals, including migrants;
 - promoting the socio-economic integration of marginalised communities such as Roma;

- enhancing the equal and timely access to quality, sustainable and affordable services, including services that promote the access to housing and person-centred care including healthcare ; modernising social protection systems, including promoting access to social protection, with a particular focus on children and disadvantaged groups; improving accessibility including for persons with disabilities, effectiveness and resilience of healthcare systems and long-term care services
 - promoting social integration of people at risk of poverty or social exclusion, including the most deprived and children
- Policy Objective 5: A Europe Closer to its Citizens by fostering the sustainable and integrated development of urban, rural and coastal areas and local initiatives
 - Policy Objective 7: Interreg Specific Objective 1, “A safer and more secure Europe”

6.2.16 Given the thematic concentration requirements to ensure focusing the funds in a reduced number of activities, it would not be realistic for SEUPB to choose all of the Specific Objectives as set out in Alternative 6.

6.3 Assessment of Alternatives

High Level Matrix Assessment

6.3.1 A high level summary of how well each of these five alternative options perform against the SEA Objectives is provided in the matrix below (Table 6.2). This assessment is informed by a more detailed assessment of Alternatives 3, 4 and 6, the assessment matrices for which are provided in Appendix E. Alternative 5 as the current preferred option is addressed more fully in Section 7 of this Environmental Report.

Table 6.2: Assessment of Alternatives

SEA OBJECTIVES	ALTERNATIVES					
	1 Do Nothing	2 Continue with PEACE V and INTERREG IV	3 Draft Proposals as at June 2020	4 Other Relevant Investment Priorities not put Forward in June 2020 Proposals	5 Proposal as Presented in December 2020 - February 2021 (Current Proposal)	6 Other Relevant Specific Objectives not put Forward in the December 2020 - February 2021 Proposal
1 Ecology and Nature Conservation	- The programme includes a number of indicative actions relating to nature and biodiversity, including: environment and climate related community engagement, restoration of protected sites and addressing challenges associated with invasive species. Some uncertain, possibly negative effects are identified as being associated with the capital investment aspects of the programme but these are on balance considered to be indirect and controlled through local planning processes and therefore not significant. Overall, the 'do nothing' alternative is considered to be of uncertain, likely negative impact.	- Previous iterations of the INTERREG programme are more capital investment focused than the current proposals which presents an increased risk of ecological impact, although the extent and significance of such impact is uncertain.	+ The June proposals involve support for ecology and nature conservation through objectives 5.2.5 (promoting sustainable water management) and 5.2.7 (enhancing nature protection and biodiversity). Other capital investment related objectives may lead to localised negative impacts on ecology but local planning controls are anticipated to be able to ensure these are not significant at the programme level. On balance the June 2020 proposals are considered to be positive when assessed against this objective.	+/- A greater focus on support for improvements to energy and transport systems presents a some uncertainty in terms of ecological impact. The exact measures to be funded under these objectives are not specified, but could be positive or negative for biodiversity.	+ The current drafting includes a number of measures specifically targeted on conservation and biodiversity related measures, specifically measures 5.1 and 5.2. Other more capital orientated measures have potential to effect this objective positively or negatively although the extent is uncertain. On balance it is considered that this alternative is likely to present an overall positive effect.	+/- This alternative would promote climate change adaption which has positives in terms of nature conservation however some renewable energy sources can disrupt or impact negatively on ecology and nature conservation. The exact measures that would be implemented under this alternative could vary so the outcome is uncertain.
2 Population and Socio-economics	-- Support, both direct and indirect, for businesses and social enterprises is a key driver of the programme and it is therefore concluded that failure to implement any replacement for the existing Interreg V and PEACE IV programmes would be detrimental to the local economy, and prospects of long-term peace and stability in the programme area.	++ As with current proposals, support for social and economic prosperity is a key feature of the predecessor programmes. Whilst the precise delivery mechanism would vary between each alternative, overall the effect on socio-economic objectives is expected to be positive.	++ Although the balance of priorities is slightly different to those currently envisaged, the overall effect of the June 2020 proposals are expected to be positive on most or all socio-economic indicators and objectives.	++ Whilst the balance of measures under Alternative 4 vary in comparison with the other alternatives, the overall focus of the programme would remain on supporting increased prosperity and life chances in the programme regions.	++ As with all alternatives, support for opportunity, prosperity and training remains a key focus under this alternative and the overall effect is assessed as positive.	++ This alternative provides improvements to climate adaption, risk prevention and disaster resilience which will positively impact on the programme area. Specific support for socio-economic integration of communities is a key part of this alternative giving an overall positive effect.
3 Health and Quality of Life	-- Without the programme's strong focus on social inclusion, health infrastructure and regeneration of deprived areas, poverty and health issues are likely to continue, impacting on quality of life.	++ Health and quality of life will benefit directly from improved access to healthcare in border areas, community regeneration and a cleaner environment, and indirectly from increased prosperity and health research.	++ Health and quality of life will benefit directly from improved access to healthcare in border areas, community regeneration and a cleaner environment, and indirectly from increased prosperity and health research.	++ This alternative is considered to be strongly positive against the health and quality of life indicator as it supports both directly and indirectly improved access to healthcare in the border regions, and improved opportunity for training and social development.	++ Health and quality of life will benefit directly from improved access to healthcare in border areas, community regeneration and a cleaner environment, and indirectly from increased prosperity and medical research.	++ Health and quality of life will benefit directly from risk prevention and climate adaption alongside measures to promote integration of disadvantaged groups including access to housing and social services.

SEA OBJECTIVES		ALTERNATIVES					
		1	2	3	4	5	6
		Do Nothing	Continue with PEACE V and INTERREG IV	Draft Proposals as at June 2020	Other Relevant Investment Priorities not put Forward in June 2020 Proposals	Proposal as Presented in December 2020 - February 2021 (Current Proposal)	Other Relevant Specific Objectives not put Forward in the December 2020 - February 2021 Proposal
4	Soil and Land Use	0 Existing trends will continue.	0 This SEA objective is not anticipated to be significantly effected by Alternative 2.	0 The June proposals are anticipated to have a neutral impact on this objective. Whilst some of the regeneration orientated measures may impact on land use at a local level it is unlikely that any significant effect, positive or negative, would occur at the programme level.	0 New transport or energy infrastructure may have some adverse effect on land/soil quality, although these are unlikely to be significant at the programme level. Enhanced support for the circular economy under this alternative may deliver some benefits but again, and in isolation of other trends and policies, this is unlikely to be significant.	0 Soils are not a key focus of the programme, however measures to protect & restore biodiversity and to invest in the water sector may bring some indirect benefits.	0 Soil and land use are not direct affected by this alternative however renewable energy infrastructure and climate change adaptation may impact on land use. At a local level it is unlikely that any substantial affects, either positive or negative would be incurred.
5	Water	- Without the programme's contribution to protecting water catchments and quality, water quality in the programme area is likely to remain below WFD standards.	+/- The predecessor programmes included measures around protection of the water environment but also include an element of transport infrastructure support which may have the potential to impact on the water environment if not sensitively managed.	+ The promotion of sustainable water management is expected to lead to positive effects on the water environment. The significance of effect is uncertain as will likely depend on the implementation of this objective; information that is not known at present.	+/- The greater emphasis on transport and energy networks under this alternative would present some uncertain effects for the water environment, depending on the type, scale and location of any resulting investments. This alternative also does not benefit from specific measures aimed at enhancing the water environment, which some other alternatives do.	+ There is some uncertainty over likely impacts from development proposals supported by the programme, however strongly positive effects will occur through cross border river basin and marine management.	+/- Emphasis on adaption to climate change and renewable energy could impact water however measures are not specified leaving outcomes uncertain.
6	Air Quality	0 Existing trends will continue.	+/- Indirect positive impacts are anticipated due to the increased investment in renewable energy and support for innovation and new technologies, however negative impacts may occur if increased prosperity and economic activity leads to rising demand for energy and transport.	+/- Indirect positive impacts are anticipated due to the increased investment in renewable energy and support for innovation and new technologies, however negative impacts may occur if increased prosperity and economic activity leads to rising demand for energy and transport.	+ Alternative's 4 greater focus on support for sustainable energy and transport infrastructures would likely produce more direct benefits for air and climate than would some other alternatives. However, the extent of any benefit is uncertain, depending on the precise measures.	+ Indirect positive impacts are anticipated due to the increased investment in renewable energy and sustainable transport.	+ It is expected that Alternative 6 would have positive impacts on air quality due to increased promotion of sustainability and renewable energy.
7	Climate Change	- The programme offers support for climate related community engagement and support for development of renewable energy and whilst these may not be significant in the context of other underlying trends, the absence of this support is considered to of negative effect in comparison with other alternatives considered.	+ Positive impacts are anticipated due to the increased investment in renewable energy, IT and telecommunications, and general environmental protection. Some indirect negative effects may occur due to increased tourism and economic activity but overall these are not expected to outweigh the wider, more direct positive effects of the programme.	+ Increased investment, distribution, research and innovation in renewable energy should help to reduce GHG emissions, whilst habitat/ecosystem restoration and river basin management should enhance adaptation to climate change. Minor adverse effects may occur if increased prosperity and economic activities leads to rising demand for energy and transport, these are however not expected to outweigh the wider, more direct, benefits.	+ Alternative's 4 greater focus on support for sustainable energy and transport infrastructures would likely produce more direct benefits for air and climate than would some other alternatives. However, the extent of any benefit is uncertain, depending on the precise measures.	+ Facilitation of investment in renewable energy, promotion of geothermal technologies, promotion of promotion of sustainable transport initiatives and support for R&D activities are expected to support reductions in GHG emissions, whilst habitat/ecosystem restoration and river basin management should enhance adaptation to climate change.	+ Facilitation of investment in renewable energy, smart energy systems, promotion of sustainable multimodal urban mobility will produce positive outcomes in terms of climate change.

SEA OBJECTIVES		ALTERNATIVES					
		1	2	3	4	5	6
		Do Nothing	Continue with PEACE V and INTERREG IV	Draft Proposals as at June 2020	Other Relevant Investment Priorities not put Forward in June 2020 Proposals	Proposal as Presented in December 2020 - February 2021 (Current Proposal)	Other Relevant Specific Objectives not put Forward in the December 2020 - February 2021 Proposal
8	Material Assets	0 Existing trends will continue.	0 No impacts are anticipated.	+/- The programme is not specifically focused on resource use or reduction in waste generation though some indirect benefits may occur due to support for innovation and new technologies.	+ Specific focus on the circular economy is expected to generate positive effects against this objective but the extent of the effect is uncertain as the specific measures and delivery mechanisms are not specified.	+/- The alternative is not specifically focused on resource use or reduction in waste generation though there would be some benefits in improvements in rail infrastructure and some indirect benefits may occur due to the promotion of sustainability.	+/- The alternative is not specifically focused on resource use or reduction in waste generation though there would be some benefits in improvements in renewable energy infrastructure and some indirect benefits may occur due to the promotion of sustainability.
9	Historic Environment	0 Existing trends will continue.	+/- Support for tourism may lead to improved appreciation of historic and cultural assets, but may also indirectly increase pressure on such features.	+/- No adverse effects are foreseen. Improvements to local environments may encourage improved protection and appreciation of cultural heritage assets but this is unlikely to be significant at the programme area level.	+/- A greater focus on support for improvements to energy and transport systems, together with a specific focus on cross-border tourism, presents some uncertainty in terms of historic environment impact. The exact measures to be funded under these objectives are not specified, but could be positive or negative for cultural heritage.	+/- There is limited interaction between the programme and cultural heritage assets. Funding for urban renewal and sustainable tourism creates opportunities for enhanced investment in and appreciation of historic assets. Some of the more capital orientated measures could potentially negatively effect cultural heritage but this can be mitigated through sensitive siting and project selection.	+/- Further information would be needed around types of renewable energy and disaster prevention to understand the impacts on the historic environment although no adverse effects are anticipated.
10	Landscape	0 Existing trends will continue.	- Inappropriately sited infrastructure developments related to business, tourism, and transport could adversely affect landscape, though benefits may occur if previously neglected areas are regenerated. Investment in renewable energy may have an uncertain, likely negative, effect on the landscape if inappropriately sited.	- Support for capital investments such as renewable energy may lead to some degree of effect on local landscapes but these trends are already occurring and it is unlikely that the programme in isolation will lead to a significant effect. Local planning controls provide opportunity to ensure that the potential for significant effects is managed and mitigated.	+/- For the reasons described above, this alternative potentially presents more scope for impact on landscapes that do some of the other alternatives but the likelihood, extent and significance cannot be determined at present without further knowledge of the delivery mechanisms likely to be involved under this alternative.	+/- Support for energy related research and innovation may contribute to existing threats posed to sensitive landscapes from renewables developments. Measures to protect and restore biodiversity and investment in the water sector present opportunities for landscape benefits.	+/- A greater focus on improving resilience to climate change and promoting renewable energy presents scope for alterations to the landscape. The significance of alterations is difficult to determine without further knowledge of projects.
11	Natural Capital	- Without the programme's support for environment and climate related objectives, natural capital related impacts are likely to be adversely effected.	+/- Inappropriately sited infrastructure developments related to business, tourism, and transport could adversely affect the ability of ecosystems to provide services and potentially cause fragmentation of habitats/green space, though benefits should occur through environmental protection measures.	+ Restoring habitats and ecosystems will enhance the ability of these areas to deliver important services.	+/- On balance, this alternative is less natural systems focused than others but does place a greater emphasis on climate and air quality measures. Overall therefore the effect is rated as uncertain.	+ Restoring habitats and enhanced management of rivers and marine areas will enhance the ability of these areas to deliver important ecosystem services, whilst cross border ecosystem management partnerships will be particularly beneficial in spreading environmental knowledge across the programme area.	+ Promoting sustainable climate resilience and renewable energy sources will discourage the use of non-renewables and promote sustainable usage which will benefit natural capital.

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

6.4 Consideration of Alternatives

Alternative 1

- 6.4.1 As indicated by the matrix above, Alternative 1 generally performs the worst in terms of assessment against the chosen SEA objectives. The programme's main focus is on supporting the peace process via support for life opportunities and cultural appreciation across the programme area. The absence of a programme would therefore remove this source of support to the direct detriment of the socio-economic related objectives and, indirectly to health.
- 6.4.2 Alternative 1 also involves uncertain or negative effects against most of the non-population related objectives. This is because support for green enterprise and environmental related cross community engagement and collaboration remains a key aspect of the programme, through Theme 5 in particular. Cross-border water catchment and quality initiative are also a particular feature of the programme and again, these benefits would not occur should the programme not be implemented in any form.
- 6.4.3 The absence of the programme altogether would therefore be to the likely detriment of the population (incorporating both socio-economic and health), ecology, water and natural capital objectives.

Alternative 2

- 6.4.4 Alternative 2, the continuation of the predecessor PEACE IV and INTERREG VA continues with the existing support mechanisms that have been demonstrated to successful support the peace process, programme area prosperity and enhanced cross community engagement. This scenario therefore scores positively against the population related objectives of socio-economics and health & well-being.
- 6.4.5 This alternative would though lose some of the more innovation, environmental improvement and green enterprise related objectives available to the new programme and therefore whilst performing better than Alternative 1, it is generally worse-performing in comparison with the majority of indicators compared to Alternatives 3 – 6.
- 6.4.6 The existing INTERREG programme also includes a greater element of support for capital works, which dependent on exact locations and targeting presents an increased risk of adverse effect on ecology, water and landscape in particular.

Alternatives 3 - 6

- 6.4.7 Alternative 3, 4, 5 and 6 all perform similarly, representing only relatively subtle shifts in the respective programme objectives. The main feature between these scenarios is Alternative 4's more overt support for sustainable energy and transport related infrastructure. This presents greater scope for climate and air related benefits, but increases the potential for indirect impact on other objectives including ecology, water and landscape.
- 6.4.8 Alternative 6 presents a balance between other alternatives, the most distinguishing feature being the greater focus on renewable energy and smart energy systems. Whilst this may lead to enhanced performance under the climate SEA objective in particular, some of the other benefits identified under Alternative 3 – 5 may be lost as a result. Overall, the performance of this alternative is not assessed as significantly different to other alternatives but the balance of the scoring by objectives varies to reflect the areas of focus.

6.4.9 Alternatives 3 and 5 by comparison are less overtly climate-focused (although Alternative 5 in particular does include some climate related objective), but have a greater emphasis on the opportunities presented by environmental engagement as a means of delivering the over-arching and themes.

6.5 Reasons for Selection of Chosen Strategic Alternative

6.5.1 Alternative 5 represents the selected chosen strategic alternative. This is on the basis of SEUPB's analysis and community engagement activities which suggests it provides the optimum blend of priorities to maximise performance in terms of supporting and maintaining the peace process whilst also seeking opportunities to support and improve local environments within the programme area.

6.5.2 Therefore, the Policy Objectives and Specific Objectives included in the Alternative 5 for the PEACE PLUS Programme is presented for public consultation.

7 ASSESSMENT OF IMPACTS

7.1 High Level Matrix Assessment

- 7.1.1 A high level matrix assessment has been carried out on the chosen alternative; this can be seen in Table 7.1 below. The matrix is structured around assessing each of the themes and associated IAs, against the identified SEA Objectives. The themes and IAs are as supplied by SEUPB but for the purposes of brevity, they have in places been merged or summarised.

Tale 7.1: High Level Matrix Assessment of Selected Strategic Alternative

PEACE PLUS High Level Matrix		SEA OBJECTIVES										
		1	2	2	4	5	6	7	8	9	10	11
Themes and Investment Areas		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
Theme 1: Building Peaceful and Thriving Communities												
1.1	Investment Area 1: Co-designed Local Community Peace Action Plans	0	+	++	0	0	0	0	0	+	0	0
1.2	Investment Area 2: Empowering Communities	0	+	++	0	0	0	0	0	+	0	0
1.3	Investment Area 3: Building Positive Relations	0	+	++	0	0	0	0	0	0	0	0
1.4	Investment Area 4: Re-Imaging Communities	0	+	++	0	0	0	0	0	0	0	0
Theme 2: Delivering Economic Regeneration and Transformation												
2.1	Investment Area 1: SME Development and Transition	0	+	++	0	0	0	0	0	0	0	0
2.2	Investment Area 2: Innovation Challenge Fund	0	+	++	0	0	0	0	0	0	0	0
2.3	Investment Area 3: Programme Area Skills Development	0	+	++	0	0	0	0	0	0	0	0
2.4	Investment Area 4: Smart Towns and Villages	0	+	++	0	0	0	0	0	0	0	0
Theme 3: Empowering and Investing in our Young People												
3.1	Investment Area 1: Shared Learning Together Programme	0	+	++	0	0	0	0	0	0	0	0
3.2	Investment Area 2: PEACE Plus Youth Programme	0	+	++	0	0	0	0	0	0	0	0
3.3	Investment Area 3: Youth Mental Health and Wellbeing	0	++	+	0	0	0	0	0	0	0	0
Theme 4: Healthy and Inclusive Communities												
4.1	Investment Area 1: Collaborative Health and Social Care	0	++	+	0	0	0	0	0	0	0	0
4.2	Investment Area 2: Rural Regeneration and Social Inclusion	0	++	++	0	0	0	+/-	0	0	+/-	0
4.3	Investment Area 3: Victim and Survivors	0	++	+	0	0	0	0	0	0	0	0
Theme 5: Supporting a Sustainable and Better Connected Future												
5.1	Investment Area 1: Biodiversity, Nature Recovery & Resilience	++	+	+	+	+	+	+	+	0	++	++
5.2	Investment Area 2: Marine and Coastal Management	+	0	0	0	+	0	+	+	+	+	+
5.3	Investment Area 3: Water Quality and Catchment Management	+	+	+	+	++	+	+	+	0	+	+
5.4	Investment Area 4: Water Quality Improvement Programme	+	+	+	+	++	+	+	+	0	+	+
5.5	Investment Area 5: Geothermal Energy Demonstration Programme	0	+	+	0	0	+	+	0	0	0	+
5.6	Investment Area 6: Enhanced Sustainable Travel Connectivity	-	0	++	0	0	+	+	+	0	-	+/-
Theme 6: Building and Embedding Partnerships and Collaboration												
6.1	Investment Area 1: Strategic Planning and Engagement	0	+	++	0	0	0	0	0	0	0	0
6.2	Investment Area 2: Maintaining and Forging Relationships between Citizens	0	+	++	0	0	0	0	0	0	0	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

7.2 Assessment by Theme

Theme 1: Building Peaceful and Thriving Communities

7.2.1 The majority of the IAs referenced under Theme 1 relate primarily to community engagement and social process related activities. The four stated IAs focus respectively as below (full descriptions in Section 2):

- More effective community planning;
- Grants to community groups for peace-building actions and initiatives;
- Increased engagement in the peace process from minority groups and organisations; and,
- Creation of new or re-imaging shared community spaces.

7.2.2 The assessment identifies that whilst these IAs are expected to have positive effects across the population related SEA objectives of socio-economic and health & well-being, the scope for impact on the other objectives is more limited. Non-population related objectives are assessed as neutral with the exception of historic environment and cultural heritage, which are assessed as 'slight positive' on the basis that cultural related engagement may increase the appreciation and protection of shared assets.

7.2.3 No IAs under this Theme 1 are identified as needing detailed assessment.

Theme 2: Delivering Economic Regeneration and Transformation

7.2.4 The IAs proposed under Theme 2 include measures such as support for training and skills, establishment of a programme area challenge fund to support SMEs in becoming more efficient and innovative and facilitation of increased investment in digital infrastructure.

7.2.5 In keeping with the overall programme aims, this theme is expected to have a strong positive effect on the population orientated objectives of socio-economics and health & well-being.

7.2.6 The potential for a significant impact on the more environment focused objectives, positive or negative, is more limited. Whilst increased uptake of innovation and modernisation of skills may be expected to be of generally positive effect it is difficult to be specific on the significance at this scale of assessment.

7.2.7 No IAs under this theme are identified as requiring detailed assessment.

Theme 3: Empowering and Investing in Young People

7.2.8 This theme is anticipated to be of overall positive effect. As with Theme 1 and Theme 2, the strongest and most certain effects are predicted to occur on the population focused objectives of socio-economic and health & well-being. However, research also shows that young people are typically more engaged in environmental and sustainability related issues and therefore better equipping younger generations to be future civic or business leaders

is likely to support the increased prominence of such matters in future society. This is a long-term and uncertain trend so is not assessed as significant at the programme level.

7.2.9 No IAs under this theme are identified as requiring detailed assessment.

Theme 4: Healthy and Inclusive Communities

7.2.10 Health related interventions and addressing social isolation are the key features of this theme. These measures are expected to be of long-term benefit for the socio-economic and health SEA objectives. There is limited interaction with other objectives and hence the assessment concludes that beyond the population based objectives, this theme is largely of neutral effect.

7.2.11 Theme 4 - IA2: *Rural Regeneration and Social Inclusion* focuses on extending the targeting of PEACE PLUS into rural areas. The specified measures include development of green infrastructure in order to improve access to the countryside and support of social farms, including diversification of farm activities for social benefit. Whilst such measures would be expected to be of an overall positive trend on the majority of the SEA objectives it is acknowledged that not all locations would be suitable for promotion of increased public access, particularly in some of the more sensitive designated areas where human disturbance is already identified as a challenge.

7.2.12 Theme 4 - IA2 is therefore carried forward to the detailed assessment stage.

Theme 5: Supporting a Sustainable and Better Connected Future

7.2.13 Within this theme, IA1 focuses on support for nature and nature based community activities as a means of supporting the peace building process. Theme 5 IA2 – IA4 are based on a similar principle with respect to coastal and water management. These actions are anticipated to be of strong long-term positive effect across the majority of the SEA objectives.

7.2.14 Theme 5 – IA6: *Enhanced Sustainable Travel Connectivity* focuses on the use of PEACE PLUS to support existing initiatives around improving cross-border rail services. Specific actions to be supported include investment in new rolling stock to facilitate the introduction of new services between Belfast and Dublin, together with track upgrades and small-scale improvement works to allow higher speed running and reduced journey time on this same route.

7.2.15 Rail improvement works will likely increase uptake of rail usage in preference to other means of transport which is expected to have a benefit in terms of the air and climate SEA objectives. However, if not sensitively designed and implemented there is potential for such works to adversely affect other aspects of the environment; ecology and landscape in particular, and by extension natural capital.

7.2.16 Theme 5 – IA6 is therefore taken forward to the detailed assessment stage.

Theme 6: Building and Embedding Partnerships and Collaboration

7.2.17 This theme focuses primarily on identifying and addressing administrative and legal obstacles to increased cross-border cooperation. Hence, the actions and investments are strategic in nature and primarily aimed at improving institutional responses and capacities.

7.2.18 These measures are anticipated to be of positive effect for the population based objectives but there is expected to be limited interaction with the wider SEA objectives.

7.2.19 No IAs under this theme are identified as requiring detailed assessment.

7.3 Uncertainties

7.3.1 None of the indicative outputs proposed through PEACE PLUS are location-specific; they apply to the whole of Northern Ireland and/or the border counties of Ireland. It is recognised that with a programme of this nature, the precise environmental impacts will depend on the specific projects funded through PEACE PLUS. These will emerge over the duration of the 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.

7.3.2 Although the programme is predominantly non-capital in nature it is expected that some capital works will be funded either directly or through in-kind support to other processes, as discussed above. The location and extent of such projects are still to be determined and hence the likely impacts are in most cases still uncertain. 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.

7.3.3 Some of the non-capital, non-environment focused investment areas and actions, whilst apparently of neutral or non-significant effect based on current knowledge, may have indirect and unforeseen environmental effects (either positive or negative) during implementation. By their nature 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.

7.4 Detailed Matrix Assessment

7.4.1 Where specific IAs were predicted to have uncertain or adverse effects at the high level assessment stage, they have been analysed further in the detailed matrix assessment to ascertain the significance of the potential adverse effects and how these can be avoided or minimised. In the case of the PEACE PLUS IV this only relates Theme 4 - IA2: *Rural Regeneration and Social Inclusion* and Theme 5 – IA6: *Enhanced Sustainable Travel Connectivity*. The detailed matrix presented below (Table 7.2 with accompanying key) shows the likely environmental effects of these IAs.

Tale 7.2: Detailed Matrix Assessment

Theme 4: Healthy and Inclusive Communities

4.2: Investment Area 2: Rural Regeneration and Social Inclusion

SEA Objective	Description of Effect	Duration	Frequency	Permanence	Geographic Extent	Magnitude	Value	Value / Vulnerability	Significance	Certainty	Mitigation Required
1 Ecology and Nature Conservation	Development of green infrastructure could have a beneficial impact on biodiversity and ecosystems by creating a network of natural and semi-natural features which also act as wildlife corridors. However, increased public access, and in particular dog walking, in some of the more sensitive designated areas could result in disturbance to species and damage to habitats. Creating new routes may require planning permission and local planning controls and associated regulations relating to Natura 2000 sites and protected species provide a means of assessing impacts on ecology at a local level.	Long term	Regular	Permanent	Local	Low	Negligible to high	Negligible to high	Negligible adverse	Low	Yes
2 Health and Quality of Life	This IA would have a direct positive impact on health and quality of life. Support for delivering community services, family support services and social enterprise support programmes are likely to make a positive contribution to the quality of life by improving social structures. Investment in the development of green infrastructures would help encourage walking and cycling and social farming would contribute to improving mental health as well as physical activity.	Long term	Continuous	Permanent	Local to regional	High	High	High	Major	Medium	No
3 Population and Socio-economics	This IA would have a direct positive impact on this objective by providing increased access to family and community services, community development and regeneration and social enterprise, reducing social exclusion and improving cohesion across communities. The IA would also help stimulate economic development through farm diversification, supporting rural enterprises and encouraging tourism.	Long term	Continuous	Permanent	Local to regional	High	Low to high	Low to high	Major	Medium	No
4 Soil and Land Use	The development of green infrastructure could include the new cycle and walkways which could result in compaction of soils, however this would only affect a very small and localised area. The IA includes for these to be planned and constructed in a way to create natural corridors which maximise sustainable biodiversity. This could entail additional planting which could have a positive impact on soil structure and reduce erosion.	Long term	Continuous	Permanent	Local	Negligible	Negligible to high	Negligible to high	Negligible beneficial	Low	No
5 Water	The IA is unlikely to have a direct impact on this objective. There may be some slight indirect beneficial impacts if additional planting in carried out to create natural corridors, which could increase water infiltration and reduce and slow water run-off.	Long term	Continuous	Permanent	Local	Negligible	Low to high	Low to high	Negligible beneficial	Low	No
6 Air Quality	The IA is unlikely to have a direct impact on this objective. There may be some indirect impacts on air quality associated with increased traffic in rural areas due to rural development, social farming and increased tourism. Conversely the development of good connecting green infrastructure could encourage car free travel, resulting in an improvement in air quality. On balance the impact of the IA are unlikely to be of sufficient scale to lead to a discernible effect on air quality.	Long term	Continuous	Permanent	Local	Negligible	High	Low	Neutral	Low	No
7 Climate Change	The IA is unlikely to have a direct impact on this objective. The development of good connecting green infrastructure could encourage car free travel, resulting in less emissions. On balance the impact of the IA are unlikely to be of sufficient scale to lead to a discernible effect on climate.	Long term	Continuous	Permanent	Cross-border	Negligible	High	High	Neutral	Low	No
8 Material Assets	The IA is unlikely to have a direct impact on this objective, although the development of green infrastructure could indirectly help safeguard natural resources such as soils and natural capital.	Long term	Continuous	Permanent	Local to regional	Negligible	Low	Low	Neutral	Low	Np
9 Historic Environment	No direct effects are expected on the historic environment as the IA does not entail direct investment in this area nor support development likely to impact on cultural heritage.	Long term	Continuous	Permanent	Local to regional	Negligible	High	Negligible to high	Neutral	Medium	No
10 Landscape	This IA is likely to have a direct beneficial impact on landscape as it would create green infrastructure assets.	Long term	Continuous	Permanent	Local to regional	Medium	Negligible to high	Negligible to high	Moderate/Minor	Medium	No
11 Natural Capital	Development of green infrastructure under this IA would allow green spaces and corridors to be valued and managed for the provision of services for social, environmental and economic benefit. It would help to encourage outdoor recreational tourism and connection with the natural environment.	Long term	Regular	Permanent	Local to regional	Medium	High	Negligible to high	Moderate/Minor	Medium	No

Theme 5: Supporting a Sustainable and Better Connected Future											
5.6 Investment Area 6: Enhanced Sustainable Travel Connectivity											
SEA Objective	Description of Effect	Duration	Frequency	Permanence	Geographic Extent	Magnitude	Value / Vulnerability	Significance	Certainty	Mitigation Required	
1	Ecology and Nature Conservation	Track upgrades and railway improvement works funded through the programme may entail localised impacts on ecology depending on where the works take place and their extent. Such developments would be subject to controls through the local planning process and associated processes. This is likely to ensure that significant adverse effects do not occur. There may also be indirect beneficial impacts through better air quality, although it is not considered likely to be of a sufficient scale on its own to lead to a discernible effect on enhancing designated sites and other habitats.	Short term	Infrequent	Permanent	Local	Negligible	Negligible to high	Minor/Negligible	Low	Yes
2	Health and Quality of Life	There may be an indirect beneficial impact on health and wellbeing through increased economic opportunities. Improvement in local air quality through reduced car use could also result in improvement in health although it is unlikely to be of a sufficient scale on its own to lead to a discernible effect.	Long term	Continuous	Permanent	Local	Negligible	High	Negligible beneficial	Low	No
3	Population and Socio-economics	This IA would have a positive impact on this objective as increased connectivity is likely to boost local productivity and economic opportunity, improve cohesion and reduced social exclusion, resulting in long-term socio-economic benefits.	Long term	Continuous	Permanent	Cross border	Medium	Low to high	Moderate	Medium	No
4	Soil and Land Use	Track upgrades and railway improvement works funded through the programme may entail localised impacts on soils through compaction during the construction process. Such developments would be subject to controls through the local planning process and associated processes. This is likely to ensure that significant adverse effects do not occur.	Short term	Infrequent	Temporary	Local	Negligible	Negligible to high	Negligible adverse	Low	No
5	Water	Track upgrades and railway improvement works funded through the programme may entail localised water pollution impacts during the construction process. Any track upgrades and improvement works would be subject to existing legislation and controls aimed at protecting the water environment, so that a significant effect is unlikely to occur.	Short term	Infrequent	Temporary	Local	Negligible	Low to high	Negligible adverse	Low	No
6	Air Quality	This IA aims to improve the sustainable rail stock and increase cross border mobility. This is likely to increase the attractiveness of rail services as an alternative option to the use of private transport. The IA will therefore support increased uptake of sustainable transport and help improve air quality through reduced car use. However the IA focuses mainly on the Belfast to Dublin rail corridor and reliance on car-use tends to be a very well entrenched issue so there is likely to be a limit to what can be achieved under this programme in isolation.	Long term	Continuous	Permanent	Local	Medium	Low to high	Moderate/Minor	Medium	No
7	Climate Change	This IA aims to improve the sustainable rail stock and increase cross border mobility. This is likely to increase the attractiveness of rail services as an alternative option to the use of private transport and thereby result in reducing transport GHG emissions. However the IA focuses mainly on the Belfast to Dublin rail corridor and reliance on car-use tends to be a very well entrenched issue so there is likely to be a limit to what can be achieved under this programme in isolation.	Long term	Continuous	Permanent	Cross border	Low	High	Minor	Medium	No
8	Material Assets	This IA provides support for improving the transport infrastructure by providing investment to help create a modern, safe and sustainable rail infrastructure.	Long term	Continuous	Permanent	Cross-border	Medium	Low	Moderate/Minor	Medium	No
9	Historic Environment	No direct effects are expected on cultural heritage as the IA does not entail direct investment in this area nor support development likely to impact on cultural heritage.	Long term	Continuous	Permanent	Local to regional	Negligible	Negligible to high	Neutral	Low	No
10	Landscape	Track upgrades and railway improvement works funded through the programme may entail localised impacts on landscape if they entail the requirement to remove vegetation during the construction process. Such developments would be subject to controls through the local planning process and associated processes. This is likely to ensure that significant adverse effects do not occur.	Short term	Infrequent	Temporary / reversible	Local	Negligible	Negligible to high	Negligible adverse	Low	Yes
11	Natural Capital	Track upgrades and railway improvement works funded through the programme may entail localised impacts on ecology, landscape, soil and water. Such developments would be subject to controls through the local planning process and associated regulatory processes. This is likely to ensure that significant adverse effects do not occur.	Short term	Infrequent	Permanent	Local	Negligible	Negligible to high	Minor/Negligible	Low	Yes

Theme 4: Healthy and Inclusive Communities

Investment Area 2: Rural Regeneration and Social Inclusion

- 7.4.2 Theme 4 - IA2 aims to result in strategic investment designed to allow rural communities to thrive and reach their full economic, social and environmental potential. There is a strong focus on improving socio-economic aspects and health and quality of life. Proposed investment in community development resources, family support hubs and social enterprises would improve rural access to community facilities and services. The focus on collaborative (cross community and cross-border) approaches would help to reduce social exclusion and provide for cohesion across communities. Through these measures the IA has the potential to improve social structures and thereby the general quality of life. The development of green infrastructure has the potential to encourage walking, cycling and other physical activity, resulting in an improvement in long-term health and well-being. The development of social farming can also help encourage physical activity as well as improve mental health. Theme 4 - IA2 would also help stimulate economic development through farm diversification, supporting rural enterprises and encouraging tourism. This IA is therefore predicted to have a major beneficial effect on health and quality of life as well as socio-economics.
- 7.4.3 The development of green infrastructure would have a direct beneficial effect on landscape and natural capital. Green infrastructure allows for green spaces and corridors to be valued and managed for the provision of multifunctional services for social, environmental and economic benefit. It would help to encourage outdoor recreational tourism and connection with the natural environment. Moderate / minor beneficial effects are therefore predicted for landscape and natural capital.
- 7.4.4 The IA seeks to promote active lifestyles and support rural enterprises and tourism through the development of the green infrastructure, including cycle and walkways, planned and constructed in a way to create natural corridors which maximise biodiversity and community safety. Development of green infrastructure could have a beneficial impact on biodiversity and ecosystems by creating a network of natural and semi-natural features which also act as wildlife corridors. However, if passing through the more sensitive designated areas, increased public access, and in particular dog walking, could result in disturbance to species and damage to habitats. Local planning controls and associated regulations relating to Natura 2000 sites and protected species provide a means of assessing impacts on ecology at a local level and hence it is unlikely that there would be significant negative effects. A negligible adverse effect is predicted on ecology.
- 7.4.5 As Theme 4 - IA2 includes for creating natural corridors that maximise biodiversity, this may entail carrying out additional planting which could have local benefits on soil structure and reduce soil erosion, as well as increasing water infiltration and reducing and slowing water run-off. Negligible beneficial effects are predicted on soils and water.
- 7.4.6 Neutral effects are predicted on air quality, material assets and the historic environment.

Theme 5: Supporting a Sustainable and Better Connected Future

Investment Area 6: Enhanced Sustainable Travel Connectivity

- 7.4.7 Theme 5 – IA6 supports existing initiatives around improving cross-border rail services, including for investment in new rolling stock and track upgrades and improvements. The

objective of the IA is to develop and enhance sustainable, climate resilient, intelligent and intermodal national, regional and local mobility, including improved access to TEN-T and cross-border mobility. By providing a more sustainable and convenient rail services between Belfast and Dublin, this will provide an alternative mode of travel to private vehicles. The potential reduction in private vehicle use would help improve local air quality and reduce GHG emissions. However private car use tends to be a very entrenched issue, which may limit the uptake of the train services.

- 7.4.8 The IA is also focused on the Belfast and Dublin route which would limit any air quality benefits to that corridor. The potential reduction in private vehicle use is predicted to have a moderate / minor beneficial effect on local air quality and a minor beneficial effect on climate change. The IA would also have a moderate / minor beneficial effect on material assets by providing investment to improve a critical rail infrastructure.
- 7.4.9 Improved connectivity between Belfast and Dublin and the smaller adjacent urban centres of Portadown, Newry, Dundalk and Drogheda is thought to have a knock on effect on the local economy. Reduced travel time is likely to increase productivity and provide new economic opportunities. Increased connectivity is also likely to improve community cohesion and reduce social exclusion, particularly by providing improved transport options for those who may not have access to private vehicles. A moderate beneficial effect on socio-economics is predicted.
- 7.4.10 The beneficial effects on socio-economics could also result in indirect beneficial effects on health and well-being, and there may also be some indirect health benefits from improved air quality, although it is unlikely to be of a sufficient scale on its own to lead to a discernible effect. Negligible beneficial effects are predicted on health and quality of life.
- 7.4.11 Theme 5 – IA6 includes for investment in track upgrade and railway improvement works which may be required to achieve the proposed increase in service levels and passenger numbers. Depending on the extent of work required and their location, the works could have local impacts on ecology, landscape, soil and water and by extension natural capital. As this is focused on improving the existing infrastructure rather than creation of new rail routes, impacts are likely to be very localised (e.g. vegetation clearance to enable construction access, disturbance from construction works, soil compaction from construction vehicles, potential pollution from construction vehicles and plant) and generally of a short term and temporary nature. Such works are likely to be subject to controls through the project design and planning process and relevant regulations to act to ensure that any effects are not significant. Negligible adverse effects are predicted on soils, water and landscape and minor / negligible adverse effects on ecology and by extension natural capital.

7.5 Cumulative Effects Assessment

Cumulative Effects within the Programme

Ecology and Nature Conservation

- 7.5.1 The detailed assessment identified that Theme 4 IA2: *Rural Regeneration and Social Inclusion* could result in some localised impacts on ecology and nature conservation which are considered to be negligible adverse and that Theme 5 IA6: *Enhanced Sustainable Travel Connectivity* could also result in localised impacts considered to be minor /

negligible adverse. As only negligible and minor adverse effects are predicted, the combined adverse effect would not be significant. In addition, it is likely that the works promoted under these IAs would be subject to local planning controls and mitigated at the local level.

- 7.5.2 The remaining IAs were predicted to have either no effects or beneficial effects. The IAs under Theme 5: *Supporting a Sustainable and Better Connected Future* would have beneficial effects, and in particular Theme 5 IA1: *Biodiversity, Nature Recovery & Resilience*, would have strong beneficial effects. Theme 5 IA1 aims to enhance nature protection, biodiversity and green infrastructure, supporting actions for protected site restoration, nature recover networks, initiatives to address invasive alien species and increase connection with nature. Theme 5 IA2 also seeks to protect the marine biodiversity and coastal and marine heritage and provide improved understanding of coastal and marine habitats.
- 7.5.3 Overall the effects of the PEACE PLUS Programme on ecology and nature conservation within the programme area would be beneficial.
- 7.5.4 Alongside this environmental report, a Habitats Regulation Assessment (HRA) Screening was conducted in accordance with the Habitats Directive. This concludes that the PEACE PLUS Programme is not anticipated to cause significant adverse effects on Natura 2000 sites (in view of their conservation objectives) and further appropriate assessment is not required. Confirmation of this is awaited from NPWS and NIEA.

Health and Quality of Life

- 7.5.5 The effects of the PEACE PLUS Programme on health and quality of life would be strongly beneficial as the majority of the IAs are likely to provide some benefit to the health and wellbeing of residents of the programme area, either directly or indirectly. Theme 4: *Healthy and Inclusive Communities*, in particular, would result in strong beneficial effects through the proposed health related interventions, encouraging physical activity and addressing social isolation.
- 7.5.6 The combined IAs of the PEACE PLUS Programme are therefore likely to have significant beneficial effects within the programme area.

Population: Socio-economic

- 7.5.7 The effects of the PEACE PLUS Programme on socio-economic factors would also be strongly beneficial. Almost all of the IAs are predicted to result in beneficial or strongly beneficial effects by supporting communities and access to community services, access to education and training, improving social cohesion and stimulating economic development and regeneration.
- 7.5.8 The combined beneficial effects of the PEACE PLUS Programme are therefore assessed to significant within the programme area.

Soil and Land Use

- 7.5.9 The detailed assessment identified that Theme 5 IA6 could result in very small localised effects through soil compaction during rail improvement construction works, which are considered to be negligible adverse. The remaining IAs are all predicted to have either no effect or beneficial effects. Indirect beneficial effects are predicted through the IAs under Theme 5 due to support for protected site restoration, nature recover networks, peatlands,

green infrastructure etc. These actions are likely to indirectly benefit soil structure, reduce pollution and erosion.

- 7.5.10 Overall the effects of the PEACE PLUS Programme on soil and land use within the programme area would be beneficial.

Water

- 7.5.11 The detailed assessment identified that Theme 5 IA6 could result in very small localised effects through water pollution during the rail improvement construction works, which are considered to be negligible adverse. However it is considered that local planning controls and legislation would mitigate any potential risk of water pollution. The remaining IAs are all predicted to have either no effect or beneficial effects.
- 7.5.12 The majority of the IAs under Theme 5 are predicted to result in beneficial and strongly beneficial effects. Theme 5 IA3 and Theme 5 IA4 in particular are predicted to result in strong direct beneficial effects as their objective is to promote sustainable water management, including reduced flood risks, and to improve water quality both freshwater and marine as well as drinking water.
- 7.5.13 Overall the effects of the PEACE PLUS Programme on water within the programme area would be beneficial.

Air Quality

- 7.5.14 The detailed assessment identified that Theme 5 IA6 could result in indirect moderate / minor beneficial effects on air quality by encouraging increased uptake of sustainable transport over private vehicle use. Theme 5 IA5 could also result in beneficial effects on air quality by encouraging investment in the geothermal technology sector which will reduce greenhouse gas emissions. Slight beneficial indirect effects are also predicted through support for nature conservation and green infrastructure as increased vegetation can have a positive impact on air quality. The remaining IAs are all predicted to have no effect.
- 7.5.15 The effects of the PEACE PLUS Programme on air quality within the programme area would be beneficial.

Climate Change

- 7.5.16 The detailed assessment identified that Theme 5 IA5 could result in beneficial effects on climate change by encouraging investment in the geothermal technology sector which will promote energy efficiency and the reduction of greenhouse gas emissions. Additionally, Theme 5 IA6 could result in indirect minor beneficial effects on climate change by reducing GHG emissions through encouraging increased uptake of sustainable transport. The Theme 5 IA2 within this theme also supports improving knowledge of coastal and marine areas to help with climate resilience and adaptation and Theme 5 IA1 supports site restoration to create climate change resilience, including for restoration of

peatland/wetland sites to become net carbon sinks. The remaining IAs are all predicted to have no effect.

- 7.5.17 The effects of the PEACE PLUS Programme on climate change within the programme area would be beneficial.

Material Assets

- 7.5.18 The detailed assessment identified that Theme 5 IA6 could result in moderate / minor beneficial effects on material assets by improving rail transport, a critical transport infrastructure. The other IAs within this theme would also have beneficial effects as they aim to conserve and improve natural resources. The remaining IAs are all predicted to have no effect.

- 7.5.19 The effects of the PEACE PLUS Programme on material assets within the programme area would be beneficial.

Historic Environment

- 7.5.20 No adverse effects from any of the IAs have been predicted on the historic environment. Theme 5 IA2 aims to support improved understanding of underwater cultural heritage resources to support marine planning and heritage asset management. Although Theme 1 IA1 and IA2 do not directly provide support for the historic environment (archaeological, designated and non-designated sites), the IAs provide support for cultural related engagement that may increase the appreciation and protection of shared assets. The effects of the PEACE PLUS Programme on underwater historic environment within the programme area would be beneficial.

Landscape

- 7.5.21 The detailed assessment considered Theme 5 IA6 could result in negligible adverse effects on landscape because rail improvement construction works could require vegetation clearance. This is likely to be very localised, short-term and temporary. The detailed assessment also identified that Theme 4 IA2 would result in moderate / minor beneficial effects on landscape as it would support the development of green infrastructure assets. Theme 5 IA1 is also likely to have strong beneficial effects on landscape through the restoration of natural sites and improved management of coastal and marine areas under Theme 5 IA2 which would help maintain and enhance seascape. The other IAs in Theme 5 are also likely to have beneficial effects and remaining IAs are all predicted to have no effect.

- 7.5.22 The effects of the PEACE PLUS Programme on landscape within the programme area would be beneficial.

Natural Capital

- 7.5.23 The detailed assessment considered Theme 5 IA6 would result in minor / negligible adverse effects on natural capital because of effects on ecology, landscape, soil and water. The remaining IAs are all predicted to have either no effect or beneficial effects.

- 7.5.24 The detailed assessment also identified that Theme 4 IA2 would result in moderate / minor beneficial effects on natural capital as it would support the development of green infrastructure assets. The remaining IAs within Theme 5 are likely to have beneficial effects as they aim to protect and enhance natural assets. Theme 5 IA1 in particular is likely to

have strong beneficial effects because of its support for actions to increase connection with nature.

- 7.5.25 The effects of the PEACE PLUS Programme on natural capital within the programme area would be beneficial.

Cumulative Effects with Other Plans and Programmes

- 7.5.26 As noted in previous sections, and in Appendix B, there are numerous interactions between PEACE PLUS and other plans and programme, notably its predecessor programmes of PEACE IV and INTERREG VA, and also with other economic stimulus programmes.
- 7.5.27 Whilst significant adverse effects primarily associated with those other programmes cannot be discounted, the PEACE PLUS Programme as demonstrated in this ER 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.

Transboundary Effects

- 7.5.28 The PEACE PLUS Programme covers Northern Ireland and the border counties of Ireland and therefore by its nature, the effects of the programme are transboundary. There is also potential for effects to extend further than these two geographic areas because the programme is not strictly limited to the administrative borders of the programme area.
- 7.5.29 In addition, the identified beneficial effects on water and ecology and nature conservation are likely to extend outside of the programme area. Improvements in river water quality upstream are likely to also have an impact downstream. Improvements in water quality and the restoration of habitats whether terrestrial, freshwater or marine within the programme area could also have a positive impact on mobile / migratory species.
- 7.5.30 The minor or negligible effects predicted on ecology / nature conservation, soil and land use, water and landscape were due to potential small scale localised impacts, which would be unlikely to extend outside of their immediate surroundings. These would only affect the rest of Ireland if the project was located outside of the border counties e.g. if rail improvement works are required outside of the border counties to facilitate the proposed increase in service levels and passenger numbers between Belfast and Dublin.
- 7.5.31 The programme will need to comply with cross jurisdiction environmental legislation which extends into the marine environment. Projects flowing from the programme must act in accordance with EU and national environmental assessment requirements and legislation, specifically AA and EIA, within the jurisdiction of which they fall.

8 MITIGATION AND RECOMMENDATIONS

- 8.1.1 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 7.
- 8.1.2 Though not a legal requirement, this chapter also includes enhancement measures to maximise the beneficial effects offered by PEACE PLUS. Finally, an opinion of the Programme's residual effects with mitigation included has been given.

8.2 Minimising Adverse Effects

- 8.2.1 No significant adverse effects are identified and therefore there is no requirement for mitigation. Nevertheless the following measures are identified in the detailed matrix assessment in order to reduce the potential for adverse, non-significant, effect in respect of Theme 4 IA2 and Theme 5 IA6.

Theme 4 Investment Area 2: Rural Regeneration and Social Inclusion

- 8.2.2 It was recommended that any new green infrastructure created or enhanced under this investment area should be sensitively located and public access to sensitive sites avoided. Any potentially adverse effects will be minimised through compliance with legislation, and standard survey and mitigation procedures as part of the planning application process. Post consultation, it has been confirmed that green infrastructure will be minimal.

Theme 5 Investment Area 6: Enhanced Sustainable Travel Connectivity

- 8.2.3 It was recommended that any potentially adverse effects associated with track upgrades and renewals will be minimised through incorporation of environmental constraints assessment into the scheme targeting process, accompanied by standard survey and mitigation procedures as part of the planning application process. Following the consultation process it has been clarified that there will be no track upgrades funded through PEACE PLUS. The investment will focus on rolling stock.

Project Level Environmental Assessments

- 8.2.4 The assessment is limited by the level of project information available at this stage. Nevertheless, the potential for significant adverse effects is expected to be limited in most cases by the nature of the activities funded and the expected locations. A project level environmental appraisal should be undertaken prior to SEUPB making a final decision regarding the funding of projects. Funding should not be granted to projects that are likely to result in adverse effects without adequate mitigation measures.

8.3 Environmental Enhancements

- 8.3.1 The following potential enhancement measures are recommended. These are intended to improve the overall performance of the 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 SEUPB as the plan-making body to decide on the extent to which they should form part of the final programme.

- 8.3.2 It is recognised that these recommendations may already be included in the programme scope at least to some extent and that further definition may only emerge at the implementation stage.
- 8.3.3 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 programme objectives are proposed.

Promotion of Environment Related Volunteering Activities in Cross-community and Cross-border Engagement Programmes

- 8.3.4 Environmental improvement measures already form a key aspect of the programme. It is considered that the benefits resulting from such measures could be further embedded in some of the social, institutional and cultural objectives provided in Theme 1, Theme 3 and Theme 4.
- 8.3.5 Environmental based volunteering in particular supports a number of the wider objectives of the programme, representing opportunity for a shared interest and stake in a resource that transcends cultural and administrative boundaries. It also promotes physical and mental well-being and opportunity for cultural appreciation.

Support for Environment, Sustainability and Climate Themed Education Programmes

- 8.3.6 Education related activities feature strongly on Theme 3, and as a cross-cutting theme across some of the themes. Research suggests that younger people are more likely to be engaged in environment and sustainability related issues, and as noted above such matters often represent a common cause and shared interest that can span cultural differences. It is therefore suggested that further embedding environment related activities into the programme sponsored education and training activities will both improve environmental performance and support delivery of the wider programme objectives.
- 8.3.7 Empowering young people to affect change in their local communities should include elements related to improving the quality and sustainability of the environment.

Improving the Condition of Designated Sites

- 8.3.8 Through Theme 5, the programme provides both direct and indirect support for environmental improvement schemes in the programme area. Given the challenges identified during the SEA process related to the condition of some of the Natura 2000 designated sites in Ireland and Northern Ireland it is considered that opportunities exist for tighter targeting of the programme objectives to direct activities funded under this theme to support the wider policy objective of improving the condition of protected habitats. This will likely involve working closely with nature conservation stakeholders on both sides of the border to agree priorities and targeting, together with specific actions.

Greening of Shared Spaces

- 8.3.9 Measures related to the creation and regeneration of shared space already forms a key part of the programme activities. The location and nature of such proposals are not yet established and are expected to emerge during the implementation periods.
- 8.3.10 In addition to the community orientated benefits of this measure there is opportunity to direct funding towards environmental improvements, both the very simple such as erection of bird and bat boxes and other ecological measures into programme funded regeneration, to the more ambitious such as creation of new green shared space, for example in the form of pocket parks and urban wildlife gardens.

8.4 Residual Effects of PEACE PLUS

- 8.4.1 Post consultation it was confirmed that there would be minimal development of green infrastructure under Theme 4 IA2. While this would reduce the potential for adverse effects on sensitive designated sites from increased public access, it would also reduce the potential for beneficial effects to health and quality of life, landscape and natural capital.
- 8.4.2 Post consultation it was also confirmed Theme 5 IA6 would focus on rolling stock rather than track upgrades. The programme would therefore not fund track upgrades, which would avoid local adverse effects on ecology, landscape, soil and water and by extension natural capital from construction works to rail tracks.
- 8.4.3 Accounting for the mitigation measures discussed above, the PEACE PLUS Programme is not anticipated to have any significant adverse residual effects on the identified SEA objectives.

9 MONITORING

9.1 Monitoring Proposals

- 9.1.1 Article 10 of the SEA Directive requires SEUPB, as the Managing Authority, to monitor significant environmental effects of implementing the PEACE PLUS 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 programme is adopted, with annual reporting carried out for the life of the programme. It may be necessary to revise the monitoring programme periodically so that it takes account of new methods and increased understanding of the baseline environment.
- 9.1.2 It is important that any monitoring proposed by the SEA should aim to specifically monitor the impact of the programme rather than monitoring trends in the baseline environment that would have occurred regardless of the programme. In accordance with the Northern Ireland SEA Regulations, monitoring should also focus on aspects of the programme where environmental impacts are predicted to be significant.
- 9.1.3 As noted in Section 8, no significant residual environmental effects are anticipated although it is noted that there are some inherent uncertainties arising from details of the programme implementation and targeting that are not currently finalised. 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.
- 9.1.4 The draft CPR Regulations state that Managing Authorities must establish a performance framework to enable monitoring, reporting and evaluation of programme progress and performance during its implementation, as well as measuring the overall performance of the Programme. As such it is the central element of the Cooperation Programme (ETC Regulations). The performance framework contains all output and result indicators (common and programme-specific) linked to each selected Specific Objective. For both output and result indicators, milestones shall be fixed for 2024 and targets for 2029.
- 9.1.5 Without knowing the projects that the PEACE PLUS Programme will support, it is not possible to identify measures to monitor the concrete effects of the programme on the environment. Taking into account the requirement to monitor environmental effects and other regulatory requirements (CPR, ERDF and ETC Regulations), SEUPB proposes the following measures to assess and monitor the environmental impact.
- 9.1.6 Where the Specific Objective is related to the environment, output and result indicators measure the contribution of the Cooperation Programme to environment. They will show the degree of change achieved by the programme against the particular environmental objective identified in the Cooperation Programme. The progress of these indicators will be closely monitored by the Managing Authority and the Joint Secretariat and it will be reported to the Programme Monitoring Committee and the Commission.
- 9.1.7 During the selection of projects consideration will be given to potential environmental effects of the proposed projects. This will be carried out in based on the requirements set in the ETC Regulations for project selection: (1) the Programme Monitoring Committee will establish and apply criteria and procedures to ensure the horizontal principle of sustainable

development and EU environmental policy⁴; and (2) operations under the scope of the Directive on the Assessment of the Effects of Certain Public and Private Projects on the Environment⁵ will be subject to an environmental impact assessment or a screening procedure and the assessment of alternative solutions will be taken in due account⁶. Projects which potentially show effects not compliant with EU environmental objectives and with the principles of sustainable development can be screened out or amendments can be demanded by the Programme Monitoring Committee.

- 9.1.8 The environmental criteria stated in the points above will be included by including them in the application form and guidance for projects.
- 9.1.9 Similar to the Interreg VA and PEACE IV programmes, actions such as impact evaluations of the programme will be carried out for the PEACE PLUS programme. These evaluations will include an assessment of impacts on protected sites, species, biodiversity and the wider environment.
- 9.1.10 Further detail on the monitoring proposals will be included in the monitoring framework detailed in the SEA Statement.

⁴ In accordance with Article 11 and Article 191(1) of the TFEU

⁵ Directive 2011/92/EU of the European Parliament and of the Council

⁶ On the basis of the requirements of that Directive as amended by Directive 2014/52/EU of the European Parliament and of the Council

10 NEXT STEPS

- 10.1.1 Once the PEACE PLUS Programme has been adopted, an 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 PEACE PLUS Programme.

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APPENDIX A: SCOPING CONSULTATION RESPONSES

Comment ref.	Page of letter	Scoping Report ref.	Comment	Actions carried out to address comment
Organisation and contact: Department of Environment, Climate and Communications - Geological Survey Ireland				
Date received: 16/10/2020				
1	1		<p>Geoheritage The following points are suggested by the Geological Heritage Programme of Geological Survey Ireland, as appropriate ways in which to address the need to protect geological heritage in any one of Ireland's local authority areas: As a minimum, Geological Survey Ireland would like the Local Authority to include a policy objective with wording such as: "to protect from inappropriate development the scheduled list of geological heritage sites [Appendix X]." Or "to protect from inappropriate development the following list of County Geological Sites"</p>	Noted, however SEUPB is not a Local Authority who provides consent for development. Nevertheless geological heritage sites have been included in as a sub-objective in Section 3.3 of the Environmental Report.
2	1		The Geological Heritage Programme views the Local Authorities as critical partners in protecting, through the planning system, those CGS which fall within their county limits. In many cases these are often sites of high amenity or educational value, already zoned or listed in the plan. Listing in the CDP provides protection of the sites against potentially damaging developments that normally require planning permission, such as building, quarrying, landfilling or forestry. It is also important that the democratic process of public consultation and approval by councillors of the CDP means that stakeholders in the sites and all the local community can buy into the process.	Noted, however SEUPB is not a Local Authority and the planning system is not within their remit.
3	1-2		CGSs have been adopted in the National Heritage Plan, and will form a major strand of geological nature conservation to complement the various ecological and cultural conservation measures. It is important to note however, that management issues for the majority of geological heritage sites may differ from ecological sites, and in some cases development may facilitate enhanced geological understanding of a site by exposing more rock sections - for example, in a quarry extension. Consultation at the earliest stages can identify any issues relevant to an individual site or proposed development.	Noted.
4	2		County Geological Sites are the optimal way of addressing the responsibility of each authority under the Planning and Development Act 2000 and its amendments, to protect sites of geological interest. It would also be necessary to include a policy	Noted, however SEUPB is not a Local Authority and the planning system is not within their remit.

Comment ref.	Page of letter	Scoping Report ref.	Comment	Actions carried out to address comment
			objective to protect geological NHAs as they become designated and notified to the Local Authority, during the lifetime of the Plan.	
5	2		<p>Culture and Tourism</p> <p>Over the past number of years geology has become a large part of Irish tourism. Ireland currently has three UNESCO Global Geoparks, including the cross-border Marble Arch Caves Global Geopark. This Geopark became the world's first cross-border Global Geopark when it expanded from County Fermanagh into County Cavan in 2008. 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 Local Authorities 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.</p>	Referenced in Section 4.3 of the Environmental Report.
6	2		<p>Groundwater</p> <p>With regard to Flood Risk Management, there is a need to identify areas for integrated mitigation and management. Our GWflood project is a groundwater flood monitoring and mapping programme aimed at addressing the knowledge gaps surrounding groundwater flooding in Ireland. The project is providing the data and analysis tools required by local and national authorities to make scientifically-informed decisions regarding groundwater flooding.</p> <p>With regards to Climate Change, there is a need to improve the monitoring capacity of groundwater levels in Ireland so that the potential impacts of climate change can be monitored and assessed. In this context the Geological Survey Ireland has established the GWClimate project in January 2020. GWClimate will 1) establish a long-term strategic groundwater level monitoring network and 2) develop modelling and analytical approaches for evaluating the impacts of Climate Change to Irish groundwater systems. Further information can be found on the Groundwater flooding page of the Groundwater Programme.</p> <p>CatchmentCARE (Catchment Actions for Resilient Eco-systems) is an EU-funded project that aims to improve freshwater quality in cross-border river basins across three cross-border catchments. The aims will be achieved through development of three water quality improvement projects in the Finn, Blackwater and Arney catchments and installation 50 boreholes across the programme area.</p>	Noted.

Comment ref.	Page of letter	Scoping Report ref.	Comment	Actions carried out to address comment
7	3		<p>Geohazards Geohazards can cause widespread damage to landscapes, wildlife, human property and human life. While in Ireland, landslides are the most prevalent of these hazards flooding is becoming an increasing risk. Geological Survey Ireland has information available on past landslides for viewing as a layer on our Map Viewer. Geological Survey Ireland also engages in national projects such as Landslide Susceptibility Mapping and Groundwater Flooding (GWFlood), and in international projects, such as the Tsunami Warning System, coordinated by the Intergovernmental Oceanographic Commission of UNESCO. Historical records and geological evidence indicate that, while tsunamis are unlikely events around Ireland, the Irish coast is vulnerable to tsunamis from submarine landslides and distant earthquakes. Associated levels of coastal flooding are expected to be similar to those seen during storm surges, but with much more energetic inundation and a much shorter time to react. Ireland participates in an international tsunami detection and alerting system, coordinated by the Intergovernmental Oceanographic Commission of UNESCO. We recommend that geohazards and particularly flooding be taken into consideration, especially when developing areas where these risks are prevalent, and we encourage the use of our data when doing so.</p>	<p>Addressed in Section 3.3 and 4.3 of the Environmental Report</p>
8	3		<p>Natural Resources (Minerals/Aggregates) Geological Survey Ireland is of the view that the sustainable development of our natural resources should be an integral part of all development plans from a national to regional to local level to ensure that the materials required for our society are available when required. Geological Survey Ireland provides data, maps, interpretations and advice on matters related to minerals, their use and their development in our Minerals section of the website. Aggregates are an essential natural resource for the construction industry and with the Government of Ireland “Building Ireland 2040” plan, understanding of aggregate source and supply will be important. The Active Quarries, Mineral Localities and the Aggregate Potential maps are available on our Map Viewer.</p>	<p>Minerals/aggregates has been taken into consideration in the baseline assessment under Material Assets in Section 4.3 and as a SEA sub-objective in Table 3.2 of the Environmental Report.</p>
9	4		<p>Marine and Coastal Unit Our marine environment is hugely important to our bio-economy, transport, tourism and recreational sectors. It is also an important indicator of the health of our planet. Geological Survey Ireland’s Marine and Coastal Unit in partnership with the Marine Institute, jointly manages INFOMAR, Ireland’s national marine mapping programme; providing key baseline data for Ireland’s marine sector. The programme delivers a</p>	<p>Addressed in Section 4.3 of the Environmental Report</p>

Comment ref.	Page of letter	Scoping Report ref.	Comment	Actions carried out to address comment
			<p>wide range of benefits to multi-sectoral end-users across the national blue economy with an emphasis on enabling our stakeholders. Demonstrated applications for the use of INFOMAR's suite of mapping products include Shipping & Navigation, Fisheries Management, Aquaculture, Marine Leisure & Tourism and Coastal Behaviour.</p> <p>Of particular interest to tourism is the extensive database of shipwrecks mapped by the INFOMAR programme, many lost close to the coast and with engaging human interest stories associated with them https://www.infomar.ie/maps/story-maps/shipwrecks. 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 https://www.infomar.ie/maps/story-maps/exploring-dingle-bay-different-perspective. We would therefore recommend use of our Marine and Coastal Unit datasets available on our website and Map Viewer.</p> <p>The Marine and Coastal Unit also participate in coastal change projects such as CHERISH (Climate, Heritage and Environments of Reefs, Islands, and Headlands) and are undertaking mapping in areas such as coastal vulnerability and coastal erosion. Further information on these projects can be found at here.</p>	
10	4		<p>Tellus</p> <p>Tellus Border was an EU INTERREG IVA-funded regional mapping project collecting geo-environmental data on soils, water and rocks across six border counties - Donegal, Sligo, Leitrim, Cavan, Monaghan and Louth - and continuing the analysis of existing data in Northern Ireland. The project was a cross-border initiative between the Geological Survey of Northern Ireland, the Geological Survey of Ireland, Queen's University Belfast and Dundalk Institute of Technology. To date, Tellus surveying has been completed in Northern Ireland (2004–2008) and the border region of Ireland (2011–2013). Further information on Tellus Border can be found here and in 'Unearthed: impacts of the Tellus surveys of the north of Ireland' publication.</p> <p>Tellus involves two types of surveying – airborne geophysical surveying using a low-flying aircraft and ground-based geochemical surveying of soil, stream water and stream sediment. The Tellus airborne geophysical survey has now mapped 75% of the country.</p> <p>Tellus has established a Product Development workstream in order to produce</p>	Noted.

Comment ref.	Page of letter	Scoping Report ref.	Comment	Actions carried out to address comment
			more focused, user-centric data products, the need for which has been identified through stakeholder consultation, independent reviews of Tellus and government policy. Product development is undertaken under five main themes: mineral prospectively, smart agriculture, environment and health, climate action and education. Tellus is currently undertaken by Geological Survey Ireland and is funded by the Department of Environment, Climate and Communications. All data from Tellus is made available free of charge online here.	
Organisation and contact: Department of Environment, Climate and Communications - Inland Fisheries Ireland				
Date received: 29/10/2020				
11	1		The cross-border region, which is included in the PEACE PLUS Programme 2021-2027, contains a wealth of freshwater habitats supporting stocks of game and coarse fish. Rivers by their very nature provide natural boundaries and their catchment areas and channels cross these boundaries. There are also a significant number of lakes that straddle the border between Ireland and Northern Ireland. These shared waterbodies contain valuable fisheries habitats and support a wide range of aquatic species. They are also a valuable angling resource and contribute significantly to the value of tourism in these areas.	Addressed in Section 4.3 of the Environmental Report
12	1-2		A significant proportion of the floral and faunal biodiversity resource is located outside areas under formal European designation (SAC, SPA, NHA, Ramsar). It is also important to note that while many river systems are not designated under the Habitats Directive, they may hold species that are designated under that directive, e.g. Atlantic salmon (<i>Salmo salar</i>) and lamprey species.	Addressed in Section 4.3 of the Environmental Report
13	2		In determining the likely significant effects of the PEACE PLUS Programme 2021-2027 under the Strategic Environmental Assessment process, regard should be had to the need for the sustainable development of the inland and marine fisheries resource (including the conservation of fish and other species of fauna and flora, aquatic habitats and the biodiversity of inland and marine water ecosystems). Some key issues for consideration in the SEA include: <ul style="list-style-type: none"> • Water quality • Surface water hydrology • Fish spawning and nursery areas • Passage of migratory fish • Areas of natural heritage importance including geological heritage sites • Biological Diversity • Ecosystem structure and functioning 	Addressed where appropriate in Sections 3.3, 4.3, 7.1 and 7.3.

Comment ref.	Page of letter	Scoping Report ref.	Comment	Actions carried out to address comment
			<ul style="list-style-type: none"> • Sport and commercial fishing and angling • Amenity and recreational areas 	
Organisation and contact: Environmental Protection Agency				
Date received: 30/10/2020				
14	1-2	Appendix B	<p>We acknowledge Appendix B of the Scoping Report and the comprehensive list of Plans, Programmes and Strategies. In particular we refer to the column which puts the relevant Plan or Programme in the context of the PEACE PLUS Programme. Some key additional relevant plans and programmes in Ireland, at national and regional level to consider include the Regional Spatial and Economic Strategy for the Northern and Western Region, Grid 25 Implementation Plan, National Policy Framework on Alternative Fuels Infrastructure for Transport, Renewable Electricity Policy and Development Framework (SEA ongoing) , National Hazardous Waste Management Plan (SEA ongoing), Regional Waste Management Plan, Grid Implementation Plan, Nitrates Action Programme, National Forestry Programme, the Rural Development Programme, Agri-Food Strategy 2030 (SEA ongoing), National Strategic Aquaculture Plan and Seafood Operational Programme. In addition, local authority County Development Plans for the border region and, where relevant, adjoining counties.</p> <p>Additional plans to consider include Irish Water's Draft National Water Resource Management Plan (in preparation). The relevant flood risk management plans prepared as part of the National CFRAMS programme should also be considered where relevant. Aspects to consider also include the implications associated with implementation of the Maritime Spatial Planning Directive and Ireland's National Marine Spatial Plan.</p>	Addressed in Appendix B of the Environmental Report
15	2		The assessment of the potential for cumulative effects, including possible transboundary aspects will be a key element for consideration.	Addressed in Section 7.5 of the Environmental Report
16	2		The need for appropriate community engagement at key stages in the process will also need considering.	The draft Environmental Report is being consulted on.
17	2		In addition, Brexit implications and a need for continued cross-border collaboration will need to be taken into account.	Brexit related challenges to cross-border cooperation to be addressed in the PEACE PLUS Programme
18	2		For the implementation stage an environmental monitoring programme will be required to monitor the effects of implementation in both jurisdictions.	Addressed in Section 9 of the Environmental Report
19	2		<p>Specific Comments on the Programme</p> <p>The Programme should clearly set out the scope, remit and implementation related</p>	To be addressed in the PEACE PLUS Programme

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			<p>elements. These will have implications for the SEA, in terms of guiding the level of assessment applicable at the appropriate level for the Programme.</p> <p>Where specific measures will be implemented directly via the Programme, further detail should be provided in the Environmental Report and the 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.</p> <p>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.</p>	
20	2-3		<p>Sustainable Development Goals & Key Actions for Ireland</p> <p>EPA's current State of Environment Report Ireland's Environment- An Assessment 2016 (EPA, 2016) identified seven Key Actions for Ireland which align with many of the UN Sustainable Development Goals (SDGs). Delivering Ireland's long-term sustainable development and environmental protection goals will require a concerted effort by government departments to address these key actions. The relevant aspects of these Key Actions and the SDGs should be taken into account in preparing the Programme and SEA and reflected in the principles/objectives/measures in the Programme. This will ensure that the Programme aligns with and contributes to achieving Ireland's sustainable development and environmental protection ambitions.</p>	Addressed in Section 3.3 of the Environmental Report
21	3		<p>We also bring to your attention that the next iteration of the EPA's State of the Environment Report series, Ireland's Environment – An Assessment, is due to be published in November. Once published, this should be reviewed in the context of topic and sector assessments along with the Key Messages, and integrated as appropriate in preparing and implementing the Programme and SEA Environmental Report.</p>	To be taken into account if published within the timeframe of the SEA.
22	4		<p>The potential opportunities for transboundary collaboration, in relation to water bodies or water quality, biodiversity, landscape, air and climate that may arise as a result of implementation of the Programme should be highlighted in the scope of the assessment.</p> <p>It is currently unclear what aspects of the Programme are more likely to potentially have an adverse impact on the environment. While the Scoping report suggests</p>	Addressed in Section 2.2 of the Environmental Report

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			<p>proposed objectives, it is not clear what activities are proposed or what measures will be taken to ensure they will be achieved in an environmentally sustainable manner.</p> <p>In this context, we suggest including, as appropriate, a summary of some of the key environmental-related activities supported through the last iteration of the PEACE Programmes and likely to continue in the updated PEACE PLUS Programme. This would help set the scene for this new Programme and SEA Process.</p>	
23	4	Section 2.2	<p>Thematic Objectives, while we welcome both objectives of the Programme related to addressing the needs arising from the peace process, and promoting social inclusion, we would also recommend that efforts to boost economic growth and social and economic regeneration are carried out in an environmentally sustainable manner. A clean healthy and well protected environment have multiple benefits economically, socially and for our health and wellbeing.</p> <p>In addition, we welcome that the Programme is being developed in the framework of the five key Policy Objectives, one of which relates to promoting efforts to achieve a greener, lower carbon Europe.</p>	Addressed in Section 2.3 and taken into account in the Programme
24	4	Section 2.6	<p>Geographic Cover - there is merit in clarifying whether the remit of the Plan extends to the maritime areas in both jurisdictions. Consideration should also be given to the extension of the spatial scope to capture the zone of influence of the Programme outside of the border region.</p>	Addressed in Section 2.10 of the Environmental Report.
25	4	Section 3.1	<p>We note the best practice guidance referred to in section 3.1. EPA's website contains various SEA resources and guidance which you may find useful. These include:</p> <ul style="list-style-type: none"> - SEA process guidance and checklists - Inventory of spatial datasets relevant to SEA - Topic specific SEA guidance (including Good practice note on Cumulative Effects Assessment (EPA, 2020), Guidance on SEA Statements and Monitoring (EPA, 2020), Integrating climatic factors into SEA (EPA, 2019), Developing and Assessing Alternatives in SEA (EPA, 2015), and Integrated Biodiversity Impact Assessment (EPA, 2012)) 	Noted and taken into account.
26	5	Chapter 4	<p>Baseline Data</p> <p>We refer you to the various environmental reports published annually (air, water quality etc.) on our website available at http://www.epa.ie/pubs/reports/. These should be taken to take into account as appropriate.</p> <p>Additionally, we also have a number of useful spatial data resources</p>	Information sources have been used in gathering baseline data where relevant.

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			http://www.epa.ie/pubs/advice/ea/seaspatialinformationsourcesinventory.html that may also be useful to you in preparing the SEA and the Programme. Environmental Sensitivity Mapping (ESM) WebTool EPA SEA WebGIS Tool EPA WFD Application EPA AA GeoTool	
27	5	Section 4.12	In Section 4.12.9, regarding designated landscape, we would also suggest that reference is made to the National Landscape Strategy. In addition, the Marine Institute have published a draft Seascape Character Assessment which would be useful to take into account in developing the Programme.	Addressed in Section 4.3 of the Environmental Report
28	5	Section 4.13	Section 4.13.9 relating to the Comhar Sustainable Development Council (SDC) should be updated to reflect that Comhar is no longer in existence. We suggest consultation with the Department of Housing, Local Government and Heritage and NPWS regarding more recent information and recommendations relating to green infrastructure.	Addressed in Section 4.3 of the Environmental Report
29	6	Section 4.14	We acknowledge that Section 4.14 sets out the key environmental and sustainability issues and likely future trends for the Programme. It may be useful to identify the key national level policy commitments responsible for protecting these environmental aspects in both jurisdictions in the context of ensuring the Programme aligns with these.	National level policy commitments have been identified in Appendix B through the review of plans and programmes.
30	6	Section 4.14	Under Ecology and Nature reference could also be made to ecosystem services. Coastal and marine habitats should also be captured. There may be relevant mapping available for the Programme area. There would be merits in reviewing the most recent in the EPA's Water Quality in Ireland series of reports. In addition, there would also be merit in reviewing the relevant aspects of Ireland's Habitats Directive Article 17 Report- the Status of EU Protected Habitats and Species in Ireland (https://www.npws.ie/publications/article-17-reports). In the area of Natural Capital, NPWS and the Irish Forum on Natural Capital may be in a position to provide insights into the current situation in Ireland. Aquaculture may also be an aspect for consideration both in a freshwater and the coastal /marine context including the Loughs.	Addressed in Section 4.3 of the Environmental Report
31	6	Section 4.14	Under Air Quality, Climate Change and Material Assets, flooding and coastal erosion should also be included for consideration.	Addressed in Section 4.4 of the Environmental Report
32	6	Section 4.15	Information Gaps, given the high-level nature of the Programme, we suggest that the SEA Environmental Reports for the National Planning Framework, National	Information sources noted.

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			Marine Planning Framework, the WFD -River Basin Management Plan, the relevant Flood Risk Management Plans, Grid Implementation Programme and for the Northern and Western Regional Spatial and Economic Strategy be considered, as appropriate. In addition, you are referred to the environmental datasets at http://www.epa.ie/pubs/advice/ea/seaspatialinformationsourcesinventory.html .	
33	6	Section 5.1	Chapter 5- SEA Framework Under Soil and Land Use consider a sub-objective related to soil erosion. Under Climate Change consider including a sub-objective on coastal erosion. In addition, the potential of drought in future climate scenarios should be considered. Material Assets- consider as appropriate critical infrastructure such as grid, transport corridors (rail and road), gas, water and waste water.	Addressed in Section 3.3 of the Environmental Report
34	6	Section 6.2	From the information provided, Alternative 3, the proposals put forward by SEUPB as potential Programme content on 18th June 2020 would appear to be the preferred alternative for the PEACE PLUS Programme. Confirm that this is the case and it is this option that will be taken forward to more detailed assessment.	Alternative 5 is currently the preferred option (and performs very similarly to 3 environmentally). Hence this is the alternative assessed in full. A further assessment of the alternatives is now provided in Section 6 and Appendix E of the Environmental Report.
35	6	Section 7.3	There is merit in clarifying what mitigation measures and controls are in place to minimise or avoid the potential adverse significant environmental effects identified in the SEA. We also recommend that the objectives of the Programme align with efforts to contribute to achieving the UN Sustainability Development Goals.	Addressed in Section 8 of the Environmental Report
Organisation and contact: Department of Agriculture, Environment and Rural Affairs - Northern Ireland Environment Agency				
Date received: 02/11/2020				
36	1	Appendix B	In respect to Other Plans and Programmes the existing area plans and emerging Local Development Plans (LDPs) should be considered.	Addressed in Appendix B of the Environmental Report
37	1	Section 3.2	Natural Environment Division (NED) Comments NED is content the sub topics relating to Ecology and Nature Conservation cover the areas of the natural environment which may be significantly impacted by this programme.	Noted.
38	2	Section 3.4	Spatial and Temporal Scope The scoping in of transboundary issues is welcomed. NED would like the SEA Environmental Report to contain a clear statement indicating the opinion about	Addressed in Section 7.5 of the Environmental Report

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			whether or not the implementation of the of the strategy is likely to have a significant effect on Northern Ireland natural heritage, in combination with any identified measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment.	
39	2	Table 6.2	Supporting a Sustainable and Better Connected Future NED is in agreement that potential for adverse effects from infrastructure development and renewable energy development and will require further investigation in the Environmental Report.	Addressed in Section 7 of the Environmental Report
40	2		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 in appendix B are: Northern Ireland State of the Environment Reports: https://www.daerani.gov.uk/publications/state-environment-report-2013 Northern Ireland Environmental Statistics Reports: https://www.daerani.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.daerani.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 DAERA digital datasets of natural heritage features can be downloaded: www.daera-ni.gov.uk/articles/download-digital-datasets	Information sources have been used in gathering baseline data where relevant.
41	2	Appendix B	Marine Plan Team Comments: Other Plans, Programmes and Conservation Objectives The inclusion of the draft Marine Plan for Northern Ireland and UK Marine Policy Statement within the review of other plans, programmes and environmental protection measures of Annex B is welcomed. However, given these documents cut across a number of the SEA/SA topics identified, restricting them under the Water topic appears to limit the consideration of marine aspects under other topic areas. It is further advised that consideration should be given to including the EU Maritime Spatial Planning Directive and the EU Marine Strategy Framework Directive within Annex B.	Addressed in Appendix B of the Environmental Report

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42	3	Section 3.3, 5.1	<p>SA/SEA Topics, Sub Topics and SEA Objectives</p> <p>It is important that all potential impacts on the marine environment are considered, not just those on water quality. The Baseline Data chapter makes reference to marine aspects under a number of sections. For example, Marine Protected Areas are referred to in the section dealing with Ecology and Nature Conservation; marine water quality is referred to in the section on Water; fisheries and aquaculture are referred to in the Natural Capital section; reference is made to marine renewable energy generation in the section on Material Assets and shipwrecks and other underwater features are mentioned in the Historic Environment.</p> <p>Given the recognition of many marine aspects within the Baseline Data chapter it is odd that these have not been given explicit recognition within the SEA/SA topics, sub-topics and SEA Objectives.</p> <p>Whilst, the quality of marine waters is recognised in the SEA Objective on Water, it is suggested that consideration is also given to drawing out the marine aspects within the other SEA Objectives.</p>	Addressed in Section 3.3 of the Environmental Report
43	3	Section 4.12	<p>Whilst, coastal areas are recognised within the landscape section of the Baseline Data, it is suggested that consideration could be given to including reference to seascape and specifically seascape character assessments within the landscape section.</p>	Addressed in Section 4.3 of the Environmental Report
44	3		<p>Transboundary Considerations</p> <p>It is further advised that consideration should also be given to transboundary impacts of the marine environment, particularly given the cross-border loughs of Carlingford Lough and Lough Foyle.</p>	Addressed in Section 7.5 of the Environmental Report
45	3	Section 3.3, 5.1	<p>Given the cross cutting nature of marine policy documents, potential marine impacts and the recognition of marine aspects within the baseline data, it would be helpful if the marine aspects of the SA/SEA topics, sub-topics were explicitly drawn out and reflected within the SEA Objectives.</p> <p>This will ensure your assessment is robust and transparent in relation to the consideration of potential impacts on the marine environment and importantly potential transboundary marine environmental effects.</p>	Addressed in Section 3.3 of the Environmental Report
46	3	Section 4.7	<p>Marine Strategy and Licensing Team:</p> <p>There is a lack of inclusion of Shellfish Water Protected Areas and aquaculture sites in the SEA Scoping. These should be included under the Water heading.</p>	Addressed in Section 4.3 of the Environmental Report
47	4		<p>Drinking Water Inspectorate Comments</p> <p>DWI has considered the SEA Scoping Report and would welcome the inclusion of</p>	Noted.

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			water within the Theme: Supporting a Sustainable and Better Connected Future, in particular the: Support for actions related to development and protection of water catchments and water quality. Any improvement within the fresh water environment within Drinking Water Protected Areas will improve raw water being abstracted for drinking water therefore reducing treatment costs.	
48	4		Historic Environment Division Comments HED welcomes that cultural heritage has been scoped in and is to be carried forward to environmental assessment stage. We have made some observations in relation to the scoping report, some in relation to inaccuracies regarding historic environment data and interpretation, and also to some information gaps. We recommend that these comments be addressed to strengthen the assessment and make it more robust.	Noted.
49	4		As a general comment, HED highlights that historic environment related data is held by ourselves, based within the Department for Communities since 2016. Formerly we were based within NIEA, and prior to that EHS (the old Environment and Heritage Service has not existed since about 2008). We note that historic environment data is ascribed to these organisations in the report, but also that it is correctly referenced to ourselves in the appendices. We also specifically highlight the intertwined nature of the historic environment with the natural environment and landscape, which has implications with regard to the assessment and scoring of effects.	Addressed in Section 4.3 of the Environmental Report
50	4	Section 3.1	Best Practice Guidance HED highlight that our own guidance document for SEA specifically in relation to the historic environment will be of benefit in the assessment process https://www.communities-ni.gov.uk/publications/guidance-sustainability-appraisal-and-strategic-environmental-assessment-historic-environment	Noted
51	4-5	Section 3.2	Sustainability Topics HED suggest the first sub topic relating to Historic Environment should be amended to read "Designated and non-designated sites, buildings and areas"	Addressed in Section 3.3 of the Environmental Report
52	5	Section 3.4	Spatial and Temporal Scope HED highlight that given the intertwined nature of the historic environment with landscape and the natural environment, consideration of transboundary impacts is likely to be relevant with regard to this topic. The vast majority of heritage assets predate the border itself, some, such as canals and ancient earthworks traverse it,	Transboundary effects are addressed in Section 7.5 of the Environmental Report, however no effects are anticipated on the historic environment.

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			and the inter-relationships of sites, buildings and places and the potential effects with regard to impacts on their setting and the understanding and the experience of them should be reflected upon.	
53	5	Section 4.11	Historic Environment HED would strongly recommend laying out the context for the protection of Northern Historic Environment at the outset, reflecting concisely on the international/European conventions to which both Northern Ireland and Ireland are signed up to toward its protection (e.g. the Valletta Convention and the Granada Convention). Similarly for each jurisdiction HED suggest that it would be advisable to include brief concise reference to the legislative and policy protections which apply. (e.g. the Planning Act 2011, the Historic Monuments and Archaeological Objects (NI) Order 1995, the aims of Regional Development Strategy 2035 re the Historic Environment, and strategic objectives in the Strategic Planning Policy Statement 2015.	The objective of the baseline data section is to describe the current state of the environment and through this identify any existing environmental problems.
54	5	Appendix C	HED advises that the key for the map illustrated in Appendix C is incorrect with regard to one of our datasets, that which relates to scheduled areas – these zones are not proposed for scheduling or descheduling, - this layer illustrates the scheduled areas for information purposes, which are designated for each individual scheduled monument – individual scheduling documentation can be consulted with regard to understanding the legal protection afforded to each individual zone.	Correction made in Appendix C of the Environmental Report
55	5	Section 4.11	We welcome reference to the Giant's Causeway World Heritage Site, designated on account of its natural heritage geological interest, but which very much illustrates the intertwined nature of natural and historic environments.	Noted
56	5	Section 4.11	There are several inaccuracies here with regard to misinterpretation of data and information. Scheduled monuments are managed by their owners under guidance from Department for Communities Historic Environment Division. The condition of scheduled monuments is actively monitored as an ongoing process, by HED. The CAMSAR report which is referenced in the paragraph was a study focused on a spatial area which examined the condition of all monuments on the Sites and Monuments Record in that zone, both scheduled and unscheduled. The study drew conclusions and made observations in relation to how designated and undesignated sites in the area were managed, as well as looking at sites managed under other types of scheme such as Countryside Management. The implications of scheduling may merit consideration for example with regard to the separate legislative context from planning which applies for consent to works affecting these sites.	Addressed in Section 4.3 of the Environmental Report

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57	6	Section 4.11	Listed Buildings are those designated for their 'special architectural or historic interest'. Unlike elsewhere in the UK, the Northern Ireland grading system for listed buildings is non-statutory. The same statutory controls apply equally to all listed buildings, irrespective of grade.	Addressed in Section 4.3 of the Environmental Report
58	6	Section 4.11	Heritage assets which have been assessed against criteria and deemed to be 'At Risk' are recorded on the 'Heritage At Risk' Register for NI https://apps.communities-ni.gov.uk/Barni/ . This register is funded and managed by HED, DfC in partnership with Ulster Architectural Heritage (UAH).	Addressed in Section 4.3 of the Environmental Report
59	6	Section 4.11	4.11.7 Councils in NI are currently in the process of developing Local Developments Plans for their district. HED therefore questions how the last line of the paragraph has been substantiated? Relevant to the topic, it may be appropriate to cite that, where engagement with owners of listed buildings 'At Risk' has failed to prompt action, Councils have powers to serve an Urgent Work Notice to arrest further damage to the building. https://www.communities-ni.gov.uk/publications/guidance-councils-urgent-worksnotices	The last sentence of paragraph 4.11.7 should have read as "In order to encourage building conservation activities, Local Development Plans should highlight that the re-use of 'buildings at risk' should be a priority for regeneration" based on a report by Ulster Architectural Heritage (2019).
60	6	Section 4.11	4.11.8 Reference to the CAMSAR study as per commentary above would be more appropriate in this section. As well as the Industrial Heritage Record HED advise that the Defence Heritage Record should be referenced as well as the inventory of shipwrecks.	Addressed in Section 4.3 of the Environmental Report
61	6	Section 4.11	The policy weight afforded in planning terms to consideration of these assets should be worthy of reference. HED advise that the text makes no reference to designated Areas of Significant Archaeological Interest, (areas of distinctive historic landscape character which may contain undesignated and designated sites and monuments). We also advise that our Gazetteer of Historic Nucleated Urban Settlements merits reference in the report. This provides, alongside contextual prose, spatially defined areas illustrating the historic cores and early evolution of our settlements. It is a key tool in informing designations, and in place making, which would be particularly relevant toward public realm regenerative works.	Addressed in Section 4.3 of the Environmental Report
62	6	Section 4.12 and 4.13	4.12.8 and 4.13.4 HED would highlight that Northern Ireland has some very specific historic landscape characteristics, which interweave with both the historic	Addressed in Section 4.3 of the Environmental Report

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			environment topic and the natural environment, for example our ancient administrative townland boundaries and historic parish boundaries.	
63	6-7	Section 4.14	Key Environmental Sustainability Issues and Likely Future Trends 4.14.3 Historic Environment and Landscape HED would highlight that economic regeneration has brought some pressure to the historic environment in Northern Ireland, and has in places resulted in impacts to historic character within our towns and cities, sometimes negative, through the removal of assets or impacts on their settings. Climate change is also a relevant issue with regard to our historic environment. We highlight the potential for heritage assets to impact positively on social and educational objects through their value in promotion of understanding of our past.	Addressed in Section 4.3 of the Environmental Report
64	7	Table 5.1	Re Historic Environment Sub Objective. See previous comment re sub topics, objective a) might better read “preserve and enhance designated and non-designated sites, buildings and areas”.	Addressed in Section 3.3 of the Environmental Report
65	7	Table 6.2	HED suggest that the potential for localized impacts on the historic environment ought to be better reflected upon with regard to likelihood of significant environmental effects.	Addressed in Section 7 of the Environmental Report
66	7	Appendix B	Reflection on Plans/programmes with respect to the historic environment is extremely sparse, -refer to our previous comments around historic environment context. HED advises that for some council areas PPS6 will cease to have effect during the lifetime of the programme as Local Development Plan draft plan strategies become adopted. Reference to the relevant parts of the SPPS 2015 may be more appropriate here, as would reference to the relevant aims for built heritage in the RDS 2035.	Addressed in Appendix B of the Environmental Report
67	7	Section 4.11	HED would welcome further reflection on the report following these comments. We highlight our digital datasets, which will aid in addressing some of the information gaps we have highlighted. https://www.communitiesni.gov.uk/publications/historic-environment-digital-datasets . We also advise that datasets in relation to the marine historic environment, including shipwrecks can be sourced by contacting rory.mcneary@daerani.gov.uk .	Addressed in Section 4.3 of the Environmental Report
68	7	Section 4.11	In addition to the above we also highlight the value of considering potential impacts on understanding of transboundary post medieval vernacular heritage and historic settlement patterns, aspects of the historic environment which are very much	Transboundary effects are addressed in Section 7.5 of the Environmental Report, however no

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			intertwined with landscape, and which can be indicated through historic ordnance survey maps.	effects are anticipated on the historic environment.
69	8		<p>Conclusion</p> <p>The scope of the assessment should clearly set out the potential impacts on the natural, marine/water and historical environments (including any transboundary effects) to be taken into account.</p>	Addressed in Section 7 of the Environmental Report
Organisation and Contact: Department of Culture, Heritage and the Gaeltacht, Sport and Media				
Date received: 6/11/2020				
70	2		The Department recommends that the description and assessment of the baseline environment incorporates the SEA monitoring from the current programmes that it will replace. Where this information is not available the PPP (Task B6) should review current trends and should ensure that sufficient monitoring data is available at completion of the PPP to allow an assessment of impacts arising from the PPP on protected sites, species, biodiversity and the wider environment to be assessed.	The baseline assessment has been based on latest publicly available information. Proposed monitoring is addressed in Section 9.1.
71	2		The Department welcomes the inclusion of climate change in the thematic objectives and the acknowledgment that climate change cross cuts all thematic areas of the programme. The Department recommends that a similar focus is given to biodiversity loss. In May 2019 the Dail voted upon and declared both a National Climate and Biodiversity Emergency, making Ireland the first country in the world, after the UK, to do so. Biodiversity loss is as immediate and profound a threat as climate change and the SEA and PPP should reflect biodiversity loss as a core risk that underpins all plans and project cascading from the Peace Plus Programme.	<p>SEA Objectives updated to include sub-objective of no net loss of biodiversity (Table 3.2).</p> <p>SEUPB aims at contributing positively to the European Green Deal. These aspects are considered from a programme drafting perspective.</p>
72	2		Looking to the PPP, the SEA should identify measurable indicators for environmental and particularly Biodiversity impacts. A key driver of Biodiversity loss is habitat loss and the SEA process is particularly important for assessing the potential for cumulative impacts in relation to habitat loss that may arise from sub-threshold EIA projects. The SEA and PPP should establish effective and implementable monitoring of Biodiversity losses and gains, e.g. quantify and monitor the area of habitat loss and/or gains associated with the PPP, if any, across the lifetime of the PPP. Such quantifiable data can be obtained by requiring all development-type projects flowing from the programme to quantify the predicted habitat or biodiversity loss or gain associated with the project. All losses and or gains of important biodiversity features flowing from the PPP should be quantified	General processed regarding monitoring are described in Section 9 and more specific measures will immerge through programme implementation. It is noted that these need to focus on biodiversity and habitat loss and/or gains.

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			over the lifetime of the plan and the SEA process should report on them at the end of the PPP.	
73	3		The Department notes that a large proportion of the PEACE target area is composed in coastal areas that also have the highest concentrations of urban development. The SEA should acknowledge the risk to coastal and marine habitats arising from cumulative impacts of development in the coastal zone. Moreover, the marine environment supports a variety of protected and endangered mobile species (e.g. Cetaceans, seals, seabirds, migratory wildfowl, sharks) that frequently move between the different jurisdictions covered by the PPP. The Department recommends that the SEA identifies marine projects flowing from the PPP as having elevated environmental risk and an increased need to be cognisant of effects that may occur at distance from the project location (i.e. marine impact pathways can be considerably longer than their terrestrial counterparts and both temporal and spatial in nature).	It is understood that there is limited capital works proposed in coastal and marine habitats with focus on survey, monitoring and research instead. The need for increased consideration of environmental risks in coastal and marine areas is acknowledged, this would be addressed through programme targeting of projects in these areas.
74	3		The Department would welcome an acknowledgement in the SEA of the complexities of cross-jurisdiction compliance with regard to environmental legislation, specifically within the marine environment and the area of operations of the Loughs Agency. Furthermore, the SEA should stipulate mitigation that ensures that projects flowing from the PPP in the marine environment fully comply with environmental legislation in whatever jurisdiction the projects will take place within. This can be effected by a requirement for project proponents to clearly understand and state the legal framework (statute and function) within which activities are proposed, including the consent authority and/or the relevant authority responsible for assessing and undertaking any Environmental Impact Assessment (EIA) and or Appropriate Assessment (AA) that may arise.	Addressed in Sections 7.5.31 and 9.1.7.
75	3		The Department recommends that SEUPB ensures that the scale and level of detail of maps and data in the SEA is relevant to the scale of impacts that have been predicted. Furthermore, mitigation measures should be fully integrated into the PPP itself and the final PPP should fully reflect the findings of SEA and AA because they are integrated processes that mutually complement each other.	Mitigation and enhancement measures documented in Section 8 and these are provided ahead of final programme drafting to be included at SEUPB discretion.
76	3 - 4		The SEA is process is designed to evaluate likely significant environmental consequences of a plan, in this manner SEA helps us to decide what we can do and where we can do it. To that end, the SEA process should identify and address the environmental issues that will be affected by the proposed PPP in a clear and	The Scoping Report has described the plan, the baseline environment and assessment methods.

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			concise manner. Typically, a scoping report for SEA should describe the plan, baseline environment, level of decision making and assessment methods.	
77	4		SEA is a scientific based process where data and evidence should underpin statements, observations and conclusions in the report. Accordingly, baseline condition summaries should provide relevant references.	References have been included.
78	4	Section 4.3	Section 4.3.15 identifies pNHA sites as non-statutory nature protection areas with limited protection. The Department highlights that some protection for these sites is often effected through specific objectives in County Development Plans.	Addressed in Section 4.4 of the Environmental Report.
79	4	Section 4.3	Section 4.3.16 identifies statutory nature reserves in Ireland. The Department highlights that statutory Wildfowl Reserves also provide protection for migratory and resident wildfowl species and the habitats that support them.	Addressed in Section 4.4 of the Environmental Report.
80	4	Section 4.3	Section 4.3.21 Red List assessments should include marine species assessments e.g. elasmobranch species assessments https://www.npws.ie/sites/default/files/publications/pdf/Red%20List%2011%20Shar%20et%20al.pdf	Addressed in Section 4.4 of the Environmental Report.
81	4	Section 2.4	Section 2.4.4 provides for a renewed focus on rural and border communities in particular through initiatives which renew infrastructure for community use and benefit that will enhance the social fabric of communities. The Department recommends that the PPP contains a dedicated objective to ensure that downstream projects comply with EU and national environmental assessment requirements and legislation, specifically AA and EIA, where required.	Addressed in Sections 7.5.31 and 9.1.7. SEUPB considered it in programme drafting
82	4		The Department welcomes the inclusion of Ecology and Nature conservation as a sustainability topic. However, the SEA should flag the risk to nature conservation interests that can arise from the provision of Green Infrastructure (GI) (e.g. a greenway along a river bank or shore line). While the Department welcomes GI initiatives and recognises the many benefits from this approach, care needs to be taken in planning for GI that threatened, endangered and rare flora and fauna or habitats are not negatively affected by proposals. Sustainable GI initiatives and proposals must provide for positive outcomes for biodiversity in all cases.	Addressed in Section 7 of the Environmental Report
83	4	Table 5.1	The Department recommends the inclusion of a Sub Objective for Objective 1: Ecology and Nature conservation: To ensure no net loss of biodiversity associated with any project flowing from the programme.	Addressed in Section 3.3
84	4	Table 5.1	The Department recommends that Objective 11 is worded in a manner that acknowledges the need to sustainably encourage multi- functionality of greenspace.	Addressed in Section 3.3

Comment ref.	Page of letter	Scoping Report ref.	Comment	Actions carried out to address comment
85	5		<p>The Environmental Protection Agency (EPA) SEA guidance and resources¹ and their GIS based assessment tools² are valuable assets that should be used to inform the SEA process for the PPP. 1 http://www.epa.ie/monitoringassessment/assessment/sea/resources/; 2 https://gis.epa.ie/EPAMaps/SEA</p>	<p>EPA guidance has been used and EPA resources used in gathering baseline data.</p>
<p>Organisation and contact: Department of Agriculture, Food and the Marine</p>				
<p>Date received: 9/11/2020</p>				
			<p>No submissions or observations at this time.</p>	

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

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
Northern Ireland		
DOE (2015) Valuing Nature A Biodiversity Strategy for Northern Ireland to 2020	<p>This document aims to halt the loss of biodiversity in Northern Ireland. It sets out how Northern Ireland will meet its international obligations and local targets to protect biodiversity. Although it builds on the previous Biodiversity Strategy the focus of this strategy is more on ecosystems services approach rather than protecting individual species and sites.</p>	<p>PEACE PLUS aims to provide support to protect biodiversity as part of Theme 5: <i>Supporting a Sustainable and Better Connected Future</i> - Investment Area (IA) 1: <i>Biodiversity, Nature Recovery and Resilience</i>. It seeks to promote cross-border co-operation to facilitate the recovery of selected protected habitats and priority species across the programme area.</p>
DOE (2014) Strategy for Marine Protected Areas in the Northern Ireland Inshore Region	<p>Aims to protect Northern Ireland’s marine environment through networks of Marine Protected Areas (MPAs) and the key purpose of the strategy is to set out how MPAs can help to protect and improve ecosystems in Northern Ireland’s inshore region through mainly conservation. The key objectives include establishing an ecologically coherent network of well managed MPAs, ensure Northern Ireland’s MPAs contribute to the wider UK network, involving stakeholders from an early stage of the development of this network and producing appropriate protection and conservation measures for species and habitats designated ‘Priority Marine Features’.</p>	<p>PEACE PLUS aims to support and enable a cross-border approach to the protection of the marine and coastal environment through Theme 5 - IA2: <i>Marine and Coastal Management</i> which has the specific objective to promote sustainable water management.</p>
DOE Prioritised Action Framework for Natura 2000 (2013)	<p>The framework identifies key priorities for managing the Natura 2000 network, to achieve the objectives of the EU Biodiversity Strategy 2000, and to provide an overview of how to finance them. It is not a standalone document but as a strategic tool to assist in the mainstreaming of funding for Natura 2000 across different EU financial instruments.</p>	<p>PEACE PLUS aims to facilitate the recovery of selected protected habitats and priority species across the programme area including those designated Natura 2000 sites. As part of Theme 5: <i>Supporting a Sustainable and Better Connected Future</i>, it will enhance nature protection and biodiversity and green infrastructure.</p>

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
DAERA (2019) United Kingdom - Rural Development Programme (Regional) - Northern Ireland	<p>The 2014-2020 Rural Development Programme (RDP) document provides a number of measures, sub-measures and schemes based on priorities set by the European Union. The key aims and objectives are:</p> <ul style="list-style-type: none"> • To improve the competitiveness of the agri-food industry; • To improve the natural environment; and • To develop and improve rural areas. 	<p>PEACE PLUS will not have a direct influence on agricultural production but aims to support rural communities and a sustainable environment through Theme 2 – IA2: <i>Innovation Challenge Fund</i>. This will support actions such as high-level research, development and innovation projects, which will contribute to regional growth sectors including renewable Energy and Agri-food. Theme 4 - IA2: <i>Rural Regeneration and Social Inclusion</i> will support economic, environmental and social projects which contribute to rural development and regeneration.</p>
Northern Ireland Executive (2016) Draft Programme for Government Framework 2016 - 21	<p>This consultation document outlines 14 strategic outcomes, supported by 42 indicators, with the purpose of improving wellbeing for all by tackling disadvantage and driving economic growth.</p>	<p>PEACE PLUS main objectives include Theme 2: <i>Delivering Economic Regeneration and Transformation</i> which aims to boost economic growth, develop skills, improve access to Information Communications Technology (ICT), social and economic regeneration and to promote social inclusion which would help meet some of the 14 strategic outcomes.</p>
DOE (2015) Strategic Planning Policy Statement for Northern Ireland	<p>The Strategic Planning Policy Statement (SPPS) provides the core planning principles to underpin delivery of the two-tier planning system with the aim of furthering sustainable development.</p>	<p>PEACE PLUS will not directly affect land use planning, but it includes for supporting a sustainable future for the programme area which would tie in with the planning system aim of furthering sustainable development. Where actions are to support development such as infrastructure, these would need to adhere to the planning policies.</p>
Local Development Plans	<p>Local authorities are required to produce a Development Plan, in consultation with the public, which contains the policies for land use and for development control and promotion in its area. The SPPS must be taken into account when preparing the Development Plans.</p>	<p>PEACE PLUS will not directly affect land use planning, but it includes for supporting a sustainable future for the programme area which would tie in with the planning system aim of furthering sustainable development. Activities such as rail improvement works would be subject to the local planning system and would need to adhere to the Development Plan policies.</p>
AFSB (2013) Going for Growth: A Strategic Action Plan in Support	<p>This document sets out a visions for “<i>growing a sustainable, profitable and integrated Agri-food supply chain, focussed on delivering the needs of the market.</i>” The strategic priorities are:</p>	<p>PEACE PLUS will not have a direct influence on agricultural production but actions aim to support recovery of the agri-food industry such as Theme 2 – IA2: <i>Innovation Challenge Fund</i>. This will support actions such</p>

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
of the Northern Ireland Agri-Food Industry	<ul style="list-style-type: none"> • Grow sales by 60% to £7bn; • Grow employment by 15% to 115,000; • Grow sales outside Northern Ireland by 75% to £4.5bn; and • Grow by 60% to £1bn the total added value of products and services from local companies. 	<p>as high level research, development and innovation projects, which will contribute to regional growth sectors including renewable energy and agri-food.</p>
Northern Ireland Executive (2013) Together: Building a United Community Strategy	<p>This document provides a strategy for improving community relations and creating a more united and shared society. The key priorities outlined are:</p> <ol style="list-style-type: none"> 1. Our children and young people; 2. Our shared community; 3. Our safe community; and 4. Our cultural expression. 	<p>PEACE PLUS main themes include building peaceful and thriving communities, healthy and inclusive communities and empowering and investing in young people.</p> <p>Theme 1 – IA2: <i>Empowering Communities</i> and IA3: <i>Building Positive Relations</i> highlight actions concerning safe shared community and respecting cultural diversity.</p> <p>Theme 3 - IA2: <i>PEACE PLUS Youth Programme</i> and IA3: <i>Youth Mental Health and Wellbeing</i> focus on improving services delivery and capacity for young people in the programme area.</p>
Northern Ireland Executive (2012) Northern Ireland Economic Strategy	<p>Developed by local politicians to meet the particular needs of the Northern Ireland economy it sets out vision and priorities for sustainable economic growth and prosperity. However the overarching goal is to improve the economic competitiveness of the Northern Ireland economy, through focusing on export led economic growth to deepen and diversify the export base in order to increase employment and wealth across Northern Ireland. Key drivers identified are innovation, research and development and the skills of the workforce.</p>	<p>One of PEACE PLUS main objectives is boosting economic growth and social and economic regeneration, with actions to support SMEs, tourism and hospitality section and research and innovation. Theme 2 – IA3: <i>Programme Area Skills Development</i> aims to support area-based approaches, designed to address key skills gaps, which will result in increased productivity and employment and higher levels of cross-border labour mobility. These actions would help towards the Economic Strategy's overarching goal to improve economic competitiveness.</p>
Northern Ireland Executive (2012) Economy and Jobs Initiative	<p>Ensures that the economic challenges are maximised to sustain the people, businesses and regional investment. It focuses on supporting the local jobs market and accelerating new measures to create and retain jobs, Other key points includes completing tourism projects, ensuring higher levels of support to employers for jobs filled by disadvantaged workers and encouraging small businesses (up to 50 employees) by providing skills grants to invest in new skills development etc.</p>	<p>One of PEACE PLUS main objectives is boosting economic growth and social and economic regeneration, with actions to support SMEs, tourism and hospitality section and research and innovation. Theme 2 - IA3: <i>Programme Area Skills Development</i> aims to support area-based approaches, designed to address key skills gaps, which will result in increased productivity and employment and higher levels of cross-border labour mobility.</p>

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
Strategic Framework for Community Development (2012)	<p>The framework sets out the current context of community development work in Northern Ireland, articulates the significance and value that community development offers, and shows how community development should be integrated into future Northern Ireland policy and programmes. It is supported by group of representatives from key government departments, statutory agencies and other voluntary and community organisations work.</p>	<p>PEACE PLUS main themes include building peaceful and thriving communities, healthy and inclusive communities and empowering and investing in young people.</p> <p>Theme 1 – IA2: <i>Empowering Communities</i> and IA3: <i>Building Positive Relations</i> highlight actions concerning safe shared community and respecting cultural diversity which align with this framework.</p>
DARD (2012) Strategic Plan 2012-2020	<p>Focuses on a number of goals, underlying those actions, which are independent and will address key issues in support of achieving DARD's vision of 'a thriving and sustainable rural economy, community and environment'. Goals include helping the agri-food industry prepare for future market opportunities and economic challenges, improve lives of rural dweller, enhance animal, fish and plant health and animal welfare, help deliver improved sustainable environmental outcomes, and manage the business and deliver services to customers in a cost-effective way.</p>	<p>PEACE PLUS main objectives include Theme 2: <i>Delivering Economic Regeneration and Transformation</i> which aims to boost economic growth, develop skills, improve access to ICT, social and economic regeneration. Theme 5: <i>Supporting a Sustainable and Better Connected Future</i> looks at enhancing the natural environment and moving towards sustainable travel connections. These are likely to help towards the vision contain within the Strategic Plan.</p>
DARD (2012) Tackling Rural Poverty and Social Isolation	<p>This framework sets out the goals, objectives, priority action areas and outcomes for the Programme for Government commitment to bring forward a package of measures to help target the root causes of social isolation and help those in poverty in rural areas. In addition it aims to provide the necessary tools to identify the needs of vulnerable people/groups in rural areas, develop programmes/interventions to help alleviate poverty/social isolation and complement/add value to existing governmental strategies intended to tackle these issues.</p>	<p>PEACE PLUS main objectives include boosting economic growth, social and economic regeneration and to promote social inclusion. The is actioned in Theme 4 - IA2: <i>Rural Regeneration and Social Inclusion</i> which will support economic, environmental and social projects which contribute to rural development and regeneration. By adopting a strengths-based approach, the programme will contribute to the creation of a more balanced programme area, in which rural communities can thrive.</p>
DRD (2011) Ensuring a Sustainable Transport Future – A New Approach to Regional Transportation	<p>Its purpose is to provide the region with an overall approach to transportation, balancing the needs for local accessibility with the economic priorities of connectivity. This document is a review of the 2002 Regional Transportation Strategy (RTS) but does not identify individual transport schemes nor allocate land for transport related development. However, it does emphasise the need to concentrate on moving people rather than vehicles, creating space on the networks for people and freight and on maintaining what is in place, using it in a smarter way.</p>	<p>PEACE PLUS aims to support a sustainable and better connected future through Theme 5 – IA6: <i>Enhanced Sustainable Travel Connectivity</i>. This programme aims to increase connectivity across the programme area in the form of sustainable transport. It will involve significant investment in sustainable rail stock.</p>

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
Northern Ireland Executive (2011) Investment Strategy for Northern Ireland 2011-2021	This document updates the previous Investment Strategy (2008) to reflect the priorities in the Northern Ireland Programme for Government. It highlights the progress made to date and outlines the next phase in investment in public infrastructure.	PEACE PLUS aims to support infrastructure to provide inclusive and healthy communities. As there is a need to improve cross-border infrastructure PEACE PLUS aims to support a sustainable and better connected future through Theme 5 – IA6: <i>Enhanced Sustainable Travel Connectivity</i> . This programme aims to increase connectivity across the programme area in the form of sustainable transport.
DETI (2010) Northern Ireland Tourism Strategy	<p>The vision is to:</p> <ul style="list-style-type: none"> • Create the new Northern Ireland experience; • Get it on everyone’s destination wish list; and • Double the income earned from tourism by 2020. 	PEACE PLUS aims to deliver economic regeneration, with one action being to support the recovery of the tourism industry which would help towards achieving the Tourism Strategy vision. This is addressed in Theme 6 – IA1: strategic planning and engagement alongside Theme 2 – IA1: SME Development and transition. The Programme will encompass specific recovery and rebuilding supports for tourism and retail.
DRD (2010) Regional Development Strategy 2035	This document provides an overarching strategic planning framework influencing spatial development for the Region up to 2035, facilitating and guiding the public and private sectors. Taken into account are key drivers such as population growth and movement, demographic change, increasing number of households, transportation needs etc. It addresses economic, social and environmental issues aimed at achieving sustainable development and social cohesion.	PEACE PLUS main objectives include Theme 2: <i>Delivering Economic Regeneration and Transformation</i> which aims to boost economic growth, develop skills, improve access to ICT, social and economic regeneration. Theme 5: <i>Supporting a Sustainable and Better Connected Future</i> looks at enhancing the natural environment and moving towards sustainable transport. These are likely to help towards the vision contain within the Strategic Plan.
DAERA (2019) The Nitrate Action Programme (NAP) 2019-2022	The Nitrate Action Programme aims to improve the use of nutrients on farms and reducing pollution from agricultural sources.	PEACE PLUS supports the cross collaboration and development of new solutions through improved understanding and knowledge of nutrient management via Theme 5- IA3: <i>Water Quality and Catchment Management</i> .
DAERA (2018) Draft Marine Plan for Northern Ireland	The policies provide an overall framework for the management of the marine area, contributing to its sustainable development and the integration of the marine and terrestrial management processes.	PEACE PLUS aims to support and enable a cross-border approach to the protection of the marine and coastal environment through Theme 5 - IA2: <i>Marine and Coastal Management</i> which has the specific objective to promote sustainable water management.

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
DRD (2016) Sustainable Water: A Long-term Water Strategy for Northern Ireland (2015 - 2040)	<p>This document provides the framework for delivering a sustainable water sector in Northern Ireland. The strategy includes the following high-level aims:</p> <ul style="list-style-type: none"> • provide high quality sustainable supplies of drinking water to households, industry and agriculture; • manage flood risk and drainage in a sustainable manner; • achieve the environmental requirements of the Water Framework Directive in a sustainable manner; and • provide sustainable reliable water and sewerage services that meet customers' needs. 	PEACE PLUS aims to support a sustainable future, via Theme 5 - IA3: <i>Water Quality and Catchment Management</i> . This will work in line with the Water Framework Directive to promote water classification improvements.
NIEA (2015) River Basin Management Plans	<p>These plans outline objectives for improving the current condition of the water environment and provide an overview of the changes that have been made to water body boundaries and designation; environmental standards and methods; objectives set for 2021; and new measures.</p> <p>NIEA seeks to improve the effectiveness of actions taken based on the results of monitoring and analysis throughout the duration of the previous Management Plan (2009).</p>	PEACE PLUS aims to support a sustainable future through Theme 5 – IA3: <i>Water Quality and Catchment Management</i> which aims to improve freshwater quality in cross-border river basins and result in an increased percentage of cross-border freshwater bodies in cross-border river basins with good or high quality.
DoE (2014) PPS15 Planning and Flood Risk	<p>This PPS sets out the Department's planning policies to minimise flood risk to people, property and the environment. It embodies the Government's commitment to sustainable development and the conservation of biodiversity, adopting a precautionary approach to development and the use of land that takes account of climate change and is supportive to the wellbeing and safety of people.</p>	PEACE PLUS aims to provide support for collaborative initiatives to ensure a sustainable future for the environment in the context of the climate emergency. This is addressed under Theme 5: <i>Supporting a Sustainable and Better Connected Future</i> – IA1: <i>Biodiversity, Nature Recovery and Resilience</i> . It seeks to promote cross-border co-operation to facilitate the recovery of biodiversity and improved resilience to climate change. Theme 5 – IA3 <i>Water Quality and Catchment Management</i> supports catchment based flood-reduction measures especially in areas identified as vulnerable.
DOE (2006) Aquatic Monitoring Strategy 2006-07 and Water Framework Directive Monitoring Plans	<p>Document aims to provide an overarching framework and outline the general approach that will be adopted to monitoring Northern Ireland's aquatic environment for the years 2006 to 2007 and beyond, highlighting the drivers for the work. The main one is the obligation to meet the monitoring requirements of the EC Water Framework</p>	PEACE PLUS aims to support a sustainable future, via Theme 5 - IA3: <i>Water Quality and Catchment Management</i> . This will work in line with the Water Framework Directive to promote water classification

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
DAERA (2019) Northern Ireland Climate Change Adaptation Programme 2019-2024	<p>Directive (WFD) (2000/06/EC), covering surface water, groundwater and hydrological monitoring proposals.</p> <p>NICCAP2 sets the strategies, policies and actions by which government departments will deliver on the agreed outcome objectives. The objectives are based on key priority areas which include:</p> <ul style="list-style-type: none"> • Natural Capital, including Terrestrial Coastal/Marine/Freshwater ecosystems, soils and biodiversity. • Infrastructure Service • People & Built Environment • Disruption to Businesses & Supply Chains • Food Security/Global Food Production 	<p>improvements with the key objective to promote sustainable water management.</p> <p>One of the key priorities of PEACE PLUS is to address climate change within the programme area as well as support biodiversity, transboundary management of marine and coastal environment and protection of water catchments. This is addressed in Theme 5: <i>Supporting a Sustainable and Better Connected Future</i>.</p>
DARD Interim Renewable Energy Action Plan 2013/14	<p>The Interim Action Plan makes a number of recommendations on the future strategic direction and actions required to continue to build on progress of the 2010 Action Plan.</p>	<p>One of the key priorities of PEACE PLUS is to address climate change within the programme area. This is addressed in Theme 2- IA2: <i>Innovation Challenge Fund</i> which supports the high level, commercially focused research of renewable energy to deliver major change innovation projects.</p>
DETI (2012) Offshore Renewable Energy Strategic Action Plan 2012-2020	<p>The overall aim of the ORESAP is; to optimise the amount of renewable electricity sustainably generated from offshore wind and marine renewable resources in Northern Ireland's waters in order to enhance diversity and security of supply, reduce carbon emissions, contribute to the 40% renewable electricity target by 2020 and beyond and develop business and employment opportunities for Northern Ireland companies. The associated development opportunity is for up to 900 MW of offshore wind and 300 MW from tidal resources in Northern Ireland waters by 2020.</p>	<p>One of the key priorities of PEACE PLUS is to address climate change within the programme area. This is addressed in Theme 5: <i>Supporting a Sustainable and Better Connected Future</i> which highlights that transport is a considerable contributor to excess CO2 emissions. Therefore, it is essential to invest in sustainable transport infrastructure and activities. Theme 2- IA2: <i>Innovation Challenge Fund</i> supports the high level, commercially focused research of renewable energy to deliver major change innovation projects.</p>
DoE (2011) Greenhouse Gas Emissions Reduction Action Plan	<p>This document sets out a Cross-Departmental Action Plan to tackle the established strategies together, including how Northern Ireland is and will continue to reduce its carbon footprint. Specifically how the Programme for Government target to reduce greenhouse gas emissions by 25% below 1990 levels by 2025 will be delivered.</p>	<p>One of the key priorities of PEACE PLUS is to address climate change within the programme area. This is addressed in Theme 5 – IA5: <i>Geothermal Energy Demonstration Programme</i> which aims to promote energy efficiency and reduce greenhouse gases by developing a</p>

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
DETI (2012) Sustainable Energy Action Plan 2012-2015	The Action Plan aims to assist with the implementation of the Strategic Energy Framework (2010-2020). DETI set out numerous “main actions for the future” regarding renewables and other aspects of sustainable energy.	<p>policy framework and encouraging programme area investment into geothermal technology.</p> <p>One of the key priorities of PEACE PLUS is to address climate change within the programme area. This is addressed in Theme 5: <i>Supporting a Sustainable and Better Connected Future</i> which highlights that transport is a considerable contributor to excess CO₂ emissions. Therefore, it is essential to invest in sustainable transport infrastructure and activities. Theme 5 – IA5: <i>Geothermal Energy Demonstration Programme</i> also aims to promote energy efficiency and reduce greenhouse gases by developing a policy framework and encouraging programme area investment into geothermal technology.</p>
DARD (2010) Renewable Energy Action Plan	Aims to provide a framework which enables the land based and rural sectors to realise the potential opportunities in the development of renewable energy. Focus is on assisting meeting targets for renewable energy production at a regional, national and EU level in a balanced and sustainable way. Other key objectives of the development include energy security, emissions reductions and wider economic advantages.	<p>One of the key priorities of PEACE PLUS is to address climate change within the programme area. This is addressed in Theme 2- IA2: <i>Innovation Challenge Fund</i> supports the high level, commercially focused research of renewable energy to deliver major change innovation projects. Theme 5 – IA5: <i>Geothermal Energy Demonstration Programme</i> also aims to promote energy efficiency and reduce greenhouse gases by developing a policy framework and encouraging programme area investment into geothermal technology.</p>
DETI (2010) Energy Strategic Framework for Northern Ireland	Contains goals and targets but does not include the detail of how targets could be achieved. It does aim to ensure future access to secure, competitively priced and sustainable energy supplies for all of Northern Ireland. Also it provides a direction for Northern Ireland energy policy over the next ten years concentrating on key areas of electricity, natural gas and renewable energy sources.	<p>One of the key priorities of PEACE PLUS is to address climate change within the programme area. This is addressed in Theme 5 – IA5: <i>Geothermal Energy Demonstration Programme</i> which aims to promote energy efficiency and reduce greenhouse gases by developing a policy framework and encouraging programme area investment into geothermal technology.</p>
DOE (2013) Northern Ireland Waste Management Strategy: Delivering Resource Efficiency	This Strategy moves the emphasis of waste management in Northern Ireland from resource management (with landfill diversion as the key driver) to resource efficiency i.e. using resources in the most effective way while minimising the impact of their use on the environment. Therefore, this Strategy has a renewed focus on waste prevention	<p>PEACE PLUS will not directly influence waste management but may indirectly affect through developing skills in research and technological advances to promote resource efficiency and effective ways to dispose of waste.</p>

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
<p>Planning Service (DOE) (1999) PPS6 Planning, Archaeology and the Built Environment</p>	<p>(including re-use), preparing for re-use and recycling in accordance with the waste hierarchy. Making more efficient use of natural resources and facilitating increased re-use and recycling is expected to have a favourable impact on the Northern Ireland economy and help to promote and support 'green jobs'.</p> <p>Outlines the Department's planning policies and conservation of archaeological remains and features of the built heritage and advises on the treatment of these issues in development plans. It embodies the Government's commitment to sustainable development and environmental stewardship. For some council areas, PPS6 will cease to have effect during the lifetime of the programme as Local Development Plan strategies become adopted.</p>	<p>PEACE PLUS aims to protect and promote cultural heritage through improving the existing environment, supporting this planning policy statement. Theme 5 through IA1: <i>Biodiversity, Nature Recovery and Resilience</i> promotes improving and restoring priority habitats and species within protected sites and more resilient ecosystems in the wider landscape.</p>
<p>DOE (2003) Horizons: Statement of Policy on Protected Landscapes</p>	<p>Statement sets out the issues associated with the protection and sustainable use of Northern Ireland's landscape and indicates the way in which the Department plans to address them. Protected landscape allows areas to be set apart from wider countryside and identified as areas of high landscape quality, known as an Area of Outstanding Natural Beauty (AONB) or a National Park.</p>	<p>PEACE PLUS aims to protect and promote protected landscapes, improving the existing environment. Theme 5 - IA1: <i>Biodiversity, Nature Recovery and Resilience</i> promotes improving and restoring priority habitats and species within protected sites and more resilient ecosystems in the wider landscape.</p>
<p>DOE (2006) Towards an Integrated Coastal Zone Management Strategy for Northern Ireland 2006 – 2026</p>	<p>Strategy aims for the coast include:</p> <ul style="list-style-type: none"> • establish and maintain a sustainable quality of life for coastal communities; • maintain, enhance, and develop coastal infrastructure; • maintain the distinct cultural identities, traditions and skills; • maintain and enhance natural resources and the condition of designated nature conservation sites; • conserve, protect and where possible enhance the estuarine and coastal environment and terrestrial ecosystems; • secure a vibrant economic future through the sustainable use of the natural resources of the coastal zone; • maintain the visual appeal and environmental quality of Northern Ireland's coastal landscapes and seascapes; • maintain and enhance safe passage to ports and harbours for commercial shipping, fishing and recreational navigation; 	<p>PEACE PLUS aims to provide support to protect biodiversity as part of its theme on supporting a sustainable future under Theme 5 - IA1: <i>Biodiversity, Nature Recovery and Resilience</i>. Effects on biodiversity should be considered in all actions. Additionally, through IA2: <i>Marine and Coastal Management</i> a cross-border approach to the protection of the marine and coastal environment will be taken.</p>

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
NIEA (2012) Strategic Priorities 2012-2022	<ul style="list-style-type: none"> • provide statutory mechanisms to develop and implement integrated planning for the coastal zone; • establish a lead agency and structures to assist the delivery of ICZM, co-ordinate efforts and to facilitate participation; and • provide co-ordinated services to support ICZM including research, databases and mapping. <p>The plan outlines the strategic direction over the next ten years to bring together diverse roles and guide corporate business planning, describing the context of the work and how it is delivered, how success will be measured and monitored, and strategic goals and actions under four priority areas: healthy natural environment, people and places, sustainable economic growth and using resources well.</p>	<p>PEACE PLUS aims to promote education, skills and social inclusion to indirectly ensure economic development by job creation through Theme 2 - IA3: <i>Programme Area Skills Development</i>.</p> <p>Theme 4 - IA2: <i>Rural Regeneration and Social Inclusion</i> aims for efficient use of resources.</p> <p>PEACE PLUS promotes a high level of environmental protection via Theme 5 - IA 1: <i>Biodiversity, Nature Recovery and Resilience</i>. Essentially meeting the three areas of sustainable development.</p>
Northern Ireland Executive (2010) Sustainable Development Strategy	<p>Document enables structures and policies to be put in place to help move Northern Ireland towards sustainability. Helps to align the priorities within the Programme for Government and integrate sustainable development thinking throughout their operations.</p>	<p>PEACE PLUS includes Theme 5: <i>Supporting a sustainable and Better Connected Future</i>. This promotes the protection of important habitats alongside a shift towards improved energy efficiency in transport in the programme area, which would help towards the Sustainable Development Strategy.</p>
Local Development Plans	<p>Local authorities are required to produce a Development Plan in consultation with the community. The Development Plan is required to ensure there is enough land available for the area's housing, employment and community facilities, while protecting important landscape and environmental features. The Development Plans detail how development in the countryside should be managed, and provides protection to the built and natural environment.</p>	<p>PEACE PLUS aims to protect the natural environment through the IAs within Theme 5, which would align with the requirements within Development Plans to protect the natural environment. Activities such as rail improvement works would be subject to the local planning system would need to adhere to the Development Plans.</p>
Ireland	<p>DCHG (2017) National Biodiversity Action</p> <p>The new NBAP for 2017-2021 demonstrates Ireland's continuing commitment to meeting and acting on its obligations to protect their</p>	<p>PEACE PLUS aims to provide support to protect biodiversity as part of Theme 5: IA1 - <i>Biodiversity, Nature Recovery and Resilience</i>. Effects on biodiversity should be considered in all actions. Additionally, through IA2: <i>Marine</i></p>

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
Plan (NBAP) 2017-2021	<p>biodiversity for the benefit of future generations through a series of targeted strategies and actions. The plan has seven objectives:</p> <ol style="list-style-type: none"> 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. 	<p><i>and Coastal Management</i> a cross-border approach to the protection of the marine and coastal environment will be taken.</p>
Government of Ireland (2018) Project Ireland 2040: National Development Plan 2018-2027	<p>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 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.</p>	<p>PEACE PLUS aims to support a sustainable and better connected future through Theme 5 – IA6: <i>Enhanced Sustainable Travel Connectivity</i>. This programme aims to increase connectivity across the programme area in the form of sustainable transport. It will involve significant investment in sustainable rail stock. Improved high-speed broadband is actioned through Theme 4 - IA4: <i>Smart Towns and Villages</i> which provide greater access to and awareness of telecommunications and maximise the potential of ICT.</p>
DAFM Agri-food strategy to 2030 (in preparation)	<p>The agri-food sector is a key aspect of Ireland's economy, community and culture, exporting to at least 175 countries around the world and contributing a significant aspect of Ireland's global profile and reputation.</p> <ol style="list-style-type: none"> 1) Future food and beverages that meet consumer and societal expectations 2) Primary producer viability and well-being 	<p>PEACE PLUS supports high level research, development and innovation projects, which will contribute to regional growth sectors including Agri- food through Theme 2- IA2.</p>

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
Northern and Western Regional Assembly (2020) Regional Spatial and Economic Strategy 2020-2032	<p>3) An innovative, technology-driven agri-food and bioeconomy sector</p> <p>4) Climate smart, environmentally sustainable agri-food sector</p> <p>The Regional Spatial and Economic Strategy (RSES) has identified this region's key strategic assets, opportunities and challenges and set out policy responses to ensure that people's needs – such as access to housing, jobs, ease of travel and overall well-being – are met up to 2040 and beyond.</p>	<p>PEACE PLUS Aims to improve quality of life through Theme 1: <i>Building Peaceful and Thriving Communities</i>, improved environmental conditions and sustainable travel through Theme 5: <i>Supporting a Sustainable and Better Connected Future</i>. Alongside skills development, regional innovation and improved access to ICT through Theme 2: <i>Delivering Economic Regeneration and Transformation</i>. PEACE PLUS would support the objectives of the strategy.</p>
EPA (2018) River Basin Management Plan for Ireland 2018-2021	<p>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:</p> <ul style="list-style-type: none"> • Ensure full compliance with relevant EU legislation • Prevent deterioration • Meet the objectives for designated protected areas • Protect high-status waters <p>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</p>	<p>PEACE PLUS aims to support a sustainable future, via Theme 5 - IA3: <i>Water Quality and Catchment Management</i>. This will work in line with the Water Framework Directive to promote water classification improvements with the key objective to promote sustainable water management.</p>
DAFM (2012) Our Ocean Wealth: An Integrated Marine Plan for Ireland & Draft National Marine Planning Framework (NMPF)	<p>The Plan aims to support an integrated system of policy and programme planning for marine affairs in Ireland. Its vision is to provide a healthy ecosystem by that protecting/conserving rich marine biodiversity and ecosystems, managing the living and non-living resources in harmony with the ecosystem and implementing/ complying with environmental legislation.</p> <p>The NMPF outlines the proposed approach to managing Ireland's marine activities to ensure the sustainable use of marine resources.</p>	<p>PEACE PLUS aims to support and enable a cross-border approach to the protection of the marine and coastal environment through Theme 5 - IA2: <i>Marine and Coastal Management</i> which specific objective is to promote sustainable water management.</p>
DECLG and Marine Institute (2012)	<p>The MSFD establishes a framework within which EU member states are required to take the necessary measures to achieve of maintain</p>	<p>PEACE PLUS aims to support and enable a cross-border approach to the protection of the marine and coastal</p>

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
Ireland's Marine Strategy Framework Directive Implementation and June 2020 Update	<p>good environmental status in the marine environment by 2020. The main objectives of the Directive are to:</p> <ul style="list-style-type: none"> • Protect and preserve the marine environment; • Prevent its deterioration; • Where practicable, restore marine ecosystems in areas where they have been adversely affected; • Prevent and reduce inputs in the marine environment, with a view to phasing out pollution; and <p>Ensure that there are no significant impacts on or risks to marine biodiversity, marine ecosystems, human health or legitimate uses of the sea.</p>	<p>environment through Theme 5 - IA2: <i>Marine and Coastal Management</i>. This will enable a cross-border approach to the protection of the marine and coastal environment from natural and anthropological threats.</p>
DAFM National Strategic Aquaculture Plan 2015 -2020	<p>This strategic plan envisions “A sustainable and competitive aquaculture sector, where production will grow according to market and consumer demands and in balance with nature and society.”</p>	<p>PEACE PLUS aims to support and enable a cross-border approach to the protection of the marine and coastal environment through Theme 5 - IA2: <i>Marine and Coastal Management</i> which specific objective is to promote sustainable water management.</p>
Irish Water (2017) Draft National Water Resource Plan (NWRP)	<p>The NWRP identifies how a sustainable, secure and reliable water supply will be provided now and into the future whilst safeguarding the environment. It is a 25 year strategy to ensure a sustainable, secure and reliable drinking water supply for everyone.</p>	<p>PEACE PLUS aims to support a sustainable future, via Theme 5 - IA3: <i>Water Quality and Catchment Management</i>. This will work in line with the Water Framework Directive to promote water classification improvements with the key objective to promote sustainable water management.</p>
DCCAE (2020) National Energy & Climate Plan 2021-2030	<p>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:</p> <ul style="list-style-type: none"> • Decarbonisation – GHG emissions and removals and renewable energy • Energy efficiency • Energy security • Internal energy market • Research, innovation and competitiveness 	<p>One of the key priorities of PEACE PLUS is to address climate change within the programme area. This is addressed in Theme 5 – IA5: <i>Geothermal Energy Demonstration Programme</i> which aims to promote energy efficiency and reduce greenhouse gases by developing a policy framework and encouraging programme area investment into geothermal technology.</p>

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
DCCAE (2019) Climate Action Plan	<p>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. 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.</p>	<p>One of the key priorities of PEACE PLUS is to address climate change within the programme area. This is addressed in Theme 5: <i>Supporting a Sustainable and Better Connected Future</i> which highlights that transport is a considerable contributor to excess CO₂ emissions. Therefore, it is essential to invest in sustainable transport infrastructure and activities. Theme 5 – IA1: <i>Biodiversity, Nature Recovery and Resilience</i> highlight that a cross-border approach to management the restoration of peatland/wetland sites will increase net carbon sinks and contribute to achieving net zero emission targets.</p>
DCCAE (2018) National Adaptation Framework: Planning for a Climate Resilient Ireland	<p>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 the 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:</p> <ul style="list-style-type: none"> • 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 	<p>One of the key priorities of PEACE PLUS is to address climate change within the programme area and aims to support a sustainable future through Theme 5, which relates to the restoration of peatlands and promoting energy efficiency in transport to reduce greenhouse gas emissions. Theme 5- IA1: <i>Biodiversity, Nature Recovery and Resilience</i> aims to improve habitat resilience to climate change and Theme 5 – IA2 aims to improve understanding of climate change impact on coastal and marine systems to enable climate change adaption and resilience.</p>
DCCAE (2017) National Mitigation Plan	<p>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:</p> <ul style="list-style-type: none"> • 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; 	<p>One of the key priorities of PEACE PLUS is to address climate change within the programme area, aiming to support a sustainable future through Theme 5, which relates to the restoration of peatlands and promoting energy efficiency in transport. PEACE PLUS recognises that transport is a considerable contributor to excess CO₂ emissions. Therefore, it is essential to invest in sustainable</p>

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
<p>DCENR (2014) Offshore Renewable Energy Development Plan (OREDP): A Framework for the Sustainable Development of Ireland's Offshore Renewable Energy Resource</p>	<ul style="list-style-type: none"> • 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. <p>The OREDP sets the framework for the sustainable development of Ireland's offshore renewable energy resources and sets out the key principles, policy actions and enables for delivery. The OREDP identifies three high level goals:</p> <ul style="list-style-type: none"> • Ireland harnesses the market opportunities presented by offshore renewable energy to achieve economic development, growth and jobs; • Increase awareness of the value, opportunities and societal benefits of developing offshore renewable energy; • Offshore renewable energy developments do not adversely impact our rich marine environment and its living and non-living resources. 	<p>transport infrastructure and activities to reduce greenhouse gas emissions.</p> <p>One of the key priorities of PEACE PLUS is to address climate change within the programme area. Theme 2 - IA2: <i>Innovation Challenge Fund</i> supports the high level, commercially focused research of renewable energy to deliver major change innovation projects.</p>
<p>EirGrid Grid 25 (2011)</p>	<p>The purpose of Grid25 is to put in place a safe, secure and affordable electricity supply network throughout Ireland for the 21st century; a supply network that is flexible enough to allow for an increased use of renewable and sustainable energy and innovative enough to stimulate efforts to reduce overall CO₂ emissions through energy efficiency.</p>	<p>PEACE PLUS does not have any relationship with the Grid25 and is unlikely to have any impact on the electricity network, however it would also contribute to reducing CO₂ emissions.</p>
<p>Department of Transport (2019) National Policy Framework Alternative Fuels Infrastructure for Transport in Ireland 2017 to 2030</p>	<p>Ireland has expressed its intention, through a national policy position, to transition to a low carbon economy by 2050.</p> <p>This policy framework represents the first step in communicating the government's longer term national vision for decarbonising transport by 2050, the cornerstone of which is the ambition that by 2030 all new cars and vans sold in Ireland will be zero-emissions capable.</p>	<p>One of the key priorities of PEACE PLUS is to address climate change within the programme area. Theme 5 recognises that transport is a considerable contributor to excess CO₂ emissions. Therefore, it is essential to invest in sustainable transport</p>

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
EPA (2014) 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.	PEACE PLUS will not directly influence waste management but may indirectly affect through developing skills in research and technological advances to promote resource efficiency and effective ways to dispose of waste.
Mayo County (2015) Connacht Ulster Regional Waste Management Plan Dublin City Council (2015) Eastern-Midlands Region Waste Management Plan 2015 – 2021	The waste management plans in Ireland are statutory planning documents whose objective is to set out a framework for the prevention and management of wastes for a defined regional area.	PEACE PLUS will not directly influence waste management but may indirectly affect through developing skills in research and technological advances to promote resource efficiency and effective ways to dispose of 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, managing by improving the quality of the landscape in decision making.	Theme 5 - IA2: <i>Rural Regeneration and Social Inclusion</i> focuses on community, social enterprise, social farming and green infrastructure through strategic investment designed to allow rural communities to thrive and reach their full economic, social and environmental potential. Theme 5 - IA1: <i>Biodiversity, Nature Recovery and Resilience</i> promotes improving and restoring priority habitats and species within protected sites and more resilient ecosystems in the wider landscape.
DHPLG (2020) National Marine Planning Framework Consultation (NMPF) - Draft	This is a consultation draft paper for the National Marine Planning Framework. It sets out a vision, objectives and policies to help direct decision-making in the maritime area using a plan-led approach. The aim of this endeavour is to recognise the increasing pressure on the maritime area and provide a common framework for environmental, social and economic factors to be considered in decision-making ranging from projects, plans and policy.	PEACE PLUS aims to support and enable a cross-border approach to the protection of the marine and coastal environment through Theme 5- IA2: <i>Marine and Coastal Management</i> which specific objective is to promote sustainable water management.
DCCAE (2018) Sustainable Development Goals National	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:	All key themes of PEACE PLUS would contribute to meeting the Sustainable Development Goals. The six Themes cover a wide range of opportunities including social, economic and the environment aspects.

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
Implementation Plan 2018 – 2020	<ul style="list-style-type: none"> • 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. 	
DAFM (2014) European Maritime and Fisheries Fund - Operational Programme for Ireland	<p>The Operational Programme (OP) is supported by the European Maritime and Fisheries Fund (EMFF). The OP strategy is designed around the Irish national priorities in the agri-food sector: 'Act Smart' by encouraging knowledge and innovation, 'Think Green' through a responsible and sustainable use of resources, 'Achieve Growth' in order to maintain and create jobs.</p>	<p>PEACE PLUS aims to support and enable a cross-border approach to the protection of the marine and coastal environment through Theme 5- IA2: <i>Marine and Coastal Management</i> which specific objective is to promote sustainable water management, supporting this programme.</p>
UK	<p>The MPS will facilitate and support the formulation of Marine Plans, ensuring that marine resources are used in a sustainable way in line with the high level marine objectives and thereby:</p> <ul style="list-style-type: none"> • Promote sustainable economic development; • Enable the UK's move towards a low-carbon economy, in order to mitigate the causes of climate change and ocean acidification and adapt to their effects; • Ensure a sustainable marine environment which promotes healthy, functioning marine ecosystems and protects marine habitats, species and our heritage assets; and • Contribute to the societal benefits of the marine area, including the sustainable use of marine resources to address local social and economic issues. 	<p>PEACE PLUS aims to support and enable a cross-border approach to the protection of the marine and coastal environment through Theme 5 - IA2: <i>Marine and Coastal Management</i>.</p>

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
<p>Defra (2017) UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations</p>	<p>This plan set out the comprehensive approach to meeting the statutory limits for nitrogen dioxide. The plan seeks to reduce emissions from current road vehicle fleet and accelerate road vehicle fleet turnover to cleaner vehicles. The plan also seeks to reduce emissions from other forms of transport, industry and non-road mobile machines and buildings, commercial and domestic and other stationary sources.</p> <p>Further action needed to meet current air quality limits for PM₁₀ and NO₂ includes:</p> <ul style="list-style-type: none"> • Accelerating clean technologies – including retrofitment, low emission vehicles, buildings efficiency, euro emission standards etc.; • Encouraging further behavioural changes – including modal shift, traffic management, safer driving, cycling, walking; • Local measures and delivery including parking controls, bus management arrangements, strengthening local air quality delivery; • Strategic options such as Low Emission Zones, local transport planning and very low carbon vehicles. 	<p>PEACE PLUS aims to support a sustainable and better connected future through IA6: <i>Enhanced Sustainable Travel Connectivity</i>. This will be achieved by increasing connectivity across the programme area in the form of sustainable transport. The investment in the rail infrastructure would help encourage sustainable transport, reducing private vehicle use and associated emissions.</p>
<p>Defra, Scottish Government, Welsh Assembly Government and DOE (2010) Air Pollution: Action in a Changing Climate</p>	<p>Work will be carried out across the UK Government and with the devolved administrations to ensure that agreed methodologies for assessing the costs and benefits to air quality are built into the evaluation of climate change impacts of policies.</p>	<p>PEACE PLUS aims to support a sustainable future through Theme 5 – IA5: <i>Geothermal Energy Demonstration Programme</i> aims to promote energy efficiency and reduce greenhouse gases by developing a policy framework and encouraging programme area investment into geothermal technology.</p> <p>Theme 5 – IA6: <i>Enhanced Sustainable Travel Connectivity</i>. involves significant investment in sustainable rail stock and promoting energy efficiency in transport to reduce greenhouse gas emissions.</p>
<p>Defra, Scottish Executive, Welsh Assembly Government and DOE (2007) The Air Quality Strategy for England, Scotland, Wales and Northern Ireland</p>	<p>The strategy sets out a way forward for work and planning on air quality issues; sets out the air quality standards and objectives to be achieved; introduces a new policy framework for tackling fine particles; and identifies potential new national policy measures which modelling indicates could give further health benefits and move closer towards meeting the Strategy's objectives.</p>	<p>PEACE PLUS aims to support a sustainable and better connected future through Theme 5 - IA6: <i>Enhanced Sustainable Travel Connectivity</i>. The investment in the rail infrastructure would help encourage sustainable transport, reducing private vehicle use and associated emissions.</p> <p>Theme 5 – IA5: <i>Geothermal Energy Demonstration Programme</i> aims to promote energy efficiency and reduce greenhouse gases by developing a policy framework and encouraging programme area investment into geothermal technology.</p>

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
Defra (2018) A Green Future: Our 25 Year Plan to Improve the Environment	This plan sets out the long-term plan to protect and enhance natural landscapes and habitats. The plan contains a number of goals and targets, including targets to achieve clean air, mitigate and adapt to climate change and reversing the loss of marine biodiversity,	PEACE PLUS aims to provide support to protect biodiversity as part of its theme on supporting a sustainable future under Theme 5 - IA1: <i>Biodiversity, Nature Recovery and Resilience</i> . Effects on biodiversity should be considered in all actions. Additionally, through IA2: <i>Marine and Coastal Management</i> a cross-border approach to the protection of the marine and coastal environment will be taken.
Defra (2005) UK Sustainable Development Strategy	The strategy for sustainable development aims to enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations. This can be done through producing new priorities in sustainable development for the UK to meet, help other make better informed choices, ensure sustainable consumption and production, confront climate change and energy, protect natural resources and enhance environment etc.	PEACE PLUS includes Theme 5: <i>Supporting a Sustainable and Better Connected Future</i> , as one of the main themes which would help towards the Sustainable Development Strategy. Theme 6 - IA2: <i>Maintaining and Forging Relationships</i> will support actions such as People-to-people projects to promote citizens' cooperation around specific shared challenges e.g. Climate change
EU		
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.	PEACE PLUS aims to provide support to protect biodiversity as part of Theme 5 - IA1: <i>Biodiversity, Nature Recovery and Resilience</i> . It seeks to promote cross-border co-operation to facilitate the recovery of selected protected habitats and priority species across the programme area.
Maritime Spatial Planning Directive (2014/85/EU)	The main requirement is the obligation on Member States to develop maritime spatial plans which identify the spatial and temporal distribution of relevant existing and future activities (Article 8), taking into account economic, social and ecological aspect and applying an ecosystem-based approach.	PEACE PLUS aims to support and enable a cross-border approach to the protection of the marine and coastal environment through Theme 5 - IA2: <i>Marine and Coastal Management</i> .

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
European Commission The Marine Strategy Framework Directive 2008 revised 2017	The directive aims to achieve Good Environmental Status (GES) of the EU marine waters by 2020 and to protect the resource base upon which marine-related economic and social activities depend.	PEACE PLUS aims to support and enable a cross-border approach to the protection of the marine and coastal environment through Theme 5 - IA2: <i>Marine and Coastal Management</i> .
EU's Maritime Strategy for the Atlantic Ocean Area (COM 2011(782))	Proposed approach focuses on helping communities living and working on the Atlantic coast deal with new economic realities, also recognising that the EU shares responsibility for stewardship of the world's oceans. The strategy will cover the costs, territorial and jurisdictional waters of five EU Member States with an Atlantic coastline, one being the United Kingdom.	PEACE PLUS aims to improve social inclusion, education and skills to cope with new economic realities and easy transition into them. Theme 5 – IA2 <i>Marine and Coastal Management</i> aims to encourage the protection of the marine and coastal environment resulting in economic, social and cultural benefits to the programme area.
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.	PEACE PLUS should seek to provide social inclusion and combat poverty by such activities as creating shared space and increasing levels of education and skills gained to meet targets in employment, research and innovation etc. Theme 2 - IA3: <i>Programme Area Skills Development</i> aims to support area-based approaches, designed to address key skills gaps, which will result in increased productivity and employment and higher levels of cross-border labour mobility.
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.	One of the key priorities of PEACE PLUS is to address climate change within the programme area. Theme 5 recognises that transport is a considerable contributor to excess CO ₂ emissions. Therefore, it is essential to invest in sustainable transport infrastructure and activities. Theme 5 – IA1: <i>Biodiversity, Nature Recovery and Resilience</i> highlight that a cross-border approach to management the restoration of peatland/wetland sites will increase net carbon sinks and contribute to achieving net zero emission targets.
EC (2014) A policy framework for climate and energy in	Key Elements of the 2030 framework include: <ul style="list-style-type: none"> • Greenhouse gas emissions reduction target of 40% 	One of the key priorities of PEACE PLUS is to address climate change within the programme area, aiming to support a sustainable future through Theme 5. This aims to

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
the period from 2020 to 2030	<ul style="list-style-type: none"> • 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 	support the restoration of peatlands and promote energy efficiency in transport to reduce greenhouse gas emissions. Supporting some key elements of the framework.
EC (2011) Roadmap to a Resource Efficient Europe	Document defines medium and long-term Europe wide objectives on resource efficiency and how the Commission plans to achieve them. It ensures waste is managed as a resource by 2020 and calls for higher priority to be given to reuse and recycling in order to ensure targets are met and resources can be fed back into the economy as raw material.	PEACE PLUS will not directly influence waste but may indirectly affect through developing skills in research and technological advances to promote methods to meet targets in efficient waste disposal.
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.	PEACE PLUS will aim to assist in helping the EU to deliver on its European Green Deal through actions and collaboration within the Programme. PEACE PLUS aims to provide support to protect biodiversity as part of its theme on supporting a sustainable future under Theme 5 - IA1: <i>Biodiversity, Nature Recovery and Resilience</i> .
EC (2013) Action Plan for a Maritime Strategy in the Atlantic Area	<p>The strategy for the Atlantic covers coastal, territorial and jurisdictional waters of five EU Member States and focuses on:</p> <ul style="list-style-type: none"> • Managing human activities that must deliver a healthy and productive ecosystem, through developing fisheries and aquaculture but also forecasting future change in oceanic circulation and climate; • Reducing Europe's carbon footprint through climate change mitigation, for example expansion of offshore wind farms and tidal technology in the Atlantic, but also changes in maritime transport will contribute to carbon reduction; • Developing the sustainable exploitation of the Atlantic's seafloor natural resources; and <p>Prepare for threats and emergencies in the Atlantic whether caused by accidents, natural disasters or criminal activity such as oil spills.</p>	PEACE PLUS aims to support and enable a cross-border approach to the protection of the marine and coastal environment through Theme 5 - IA2: <i>Marine and Coastal Management</i> . This will enable a cross-border approach to the protection of the marine and coastal environment from natural and anthropological threats.

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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.	All key themes of PEACE PLUS would contribute to meeting the Sustainable Development Goals. The six Themes cover a wide range of opportunities including social, economic and the environment aspects.

APPENDIX B2: REVIEW OF FURTHER PLANS, PROGRAMMES AND ENVIRONMENTAL PROTECTION OBJECTIVES

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
DAFM (2021) CAP Strategic Plan 2023 – 2027	<p>DAFM is preparing the Strategic Plan of the Common Agricultural Policy for Ireland, 2023-2027. At the time of writing, the draft CAP Strategic Plan for Ireland has not yet been finalised.</p> <p>The general objectives are:</p> <ul style="list-style-type: none"> • To foster a smart, resilient, and diversified agricultural sector ensuring food security. • To bolster environmental care and climate action and to contribute to the environmental- and climate-related objectives of the Union. • To strengthen the socio-economic fabric of rural areas. 	<p>PEACE PLUS is in line with the objectives of CAP through Theme 5 - IA2: <i>Rural Regeneration and Social Inclusion</i> which focuses on community, social enterprise, social farming and green infrastructure through strategic investment designed to allow rural communities to thrive and reach their full economic, social and environmental potential. And Additionally through Theme 5 – IA1: <i>Biodiversity, Nature Recovery and Resilience</i> which highlights that a cross-border approach to management the restoration of peatland/wetland sites will increase net carbon sinks and contribute to achieving net zero emission targets.</p>
DfI (2021) Draft Flood Risk Management Plan 2021-2027	<p>The Flood Risk Management Plan highlights the flood hazards and risks in the Areas of Potential Significant Flood Risk in NI from rivers, the sea and surface water. The plan identifies the objectives and measures that will be undertaken to manage the risk of flooding and sets out how the relevant authorities will work together with communities to manage flood risks.</p>	<p>PEACE PLUS aims to support a sustainable future. This is instilled via Theme 5 – IA3 Water Quality and Catchment Management which supports catchment based flood-reduction measures especially in areas identified as vulnerable. This will also work in line with the Water Framework Directive to promote water classification improvements.</p>
DECC (2021) Interim Climate Actions 2021	<p>Ireland’s Climate Action Plan 2019 laid out a roadmap to reduce Irelands greenhouse gas emissions and tackle the climate crisis. Implementation of the Plan is helping to meet the overall 2030 climate commitments, putting Ireland on the pathway to achieving net zero emissions by 2050.</p>	<p>One of the key priorities of PEACE PLUS is to address climate change within the programme area. This is addressed in Theme 5 – IA1: Biodiversity, Nature Recovery and Resilience highlight that a cross-border approach to management the restoration of peatland/wetland sites will increase net carbon sinks and</p>

Plan or Programme	Relevant Environmental Protection Objectives within the Plan or Programme	How the PEACE PLUS Programme will Support these Environmental Protection Objectives
<p>DECC (2020) Waste Action Plan for a Circular Economy 2020 - 2025</p>	<p>The purpose of Interim Climate Actions 2021 is to maintain a whole-of-government focus on implementation, and continue to progress new climate actions while the Plan to reach 7% per annum reductions is developed. It will ensure that planning and implementation go hand in hand.</p> <p>The Waste Action Plan for a Circular Economy is Ireland’s new roadmap for waste planning and management. Realising the need to embed climate action in all strands of public policy. This Plan shifts focus away from waste disposal and looks instead to how we can preserve resources by creating a circular economy.</p>	<p>contribute to achieving net zero emission targets. Theme 5: Supporting a Sustainable and Better Connected Future which highlights that transport is a considerable contributor to excess CO2 emissions. Therefore, it is essential to invest in sustainable transport infrastructure and activities.</p> <p>PEACE PLUS will not directly influence waste management but may indirectly affect through developing skills in research and technological advances to promote resource efficiency and effective ways to dispose of waste.</p>
<p>EU (2021) Climate Adaptation Strategy 2021</p>	<p>The new strategy sets out how the European Union can adapt to the unavoidable impacts of climate change and become climate resilient by 2050. The EU will increase support for international climate resilience and preparedness through the provision of resources, by prioritising action and increasing effectiveness, through the scaling up of international finance and through stronger global engagement and exchanges on adaptation.</p>	<p>One of the key priorities of PEACE PLUS is to address climate change within the programme area and aims to support a sustainable future through Theme 5, which includes the restoration of peatlands and promoting energy efficiency in transport to reduce greenhouse gas emissions. Theme 5- IA1: Biodiversity, Nature Recovery and Resilience aims to improve habitat resilience to climate change and Theme 5 – IA2 aims to improve understanding of climate change impact on coastal and marine systems to enable climate change adaption and resilience.</p>

APPENDIX C: ENVIRONMENTAL BASELINE MAPS

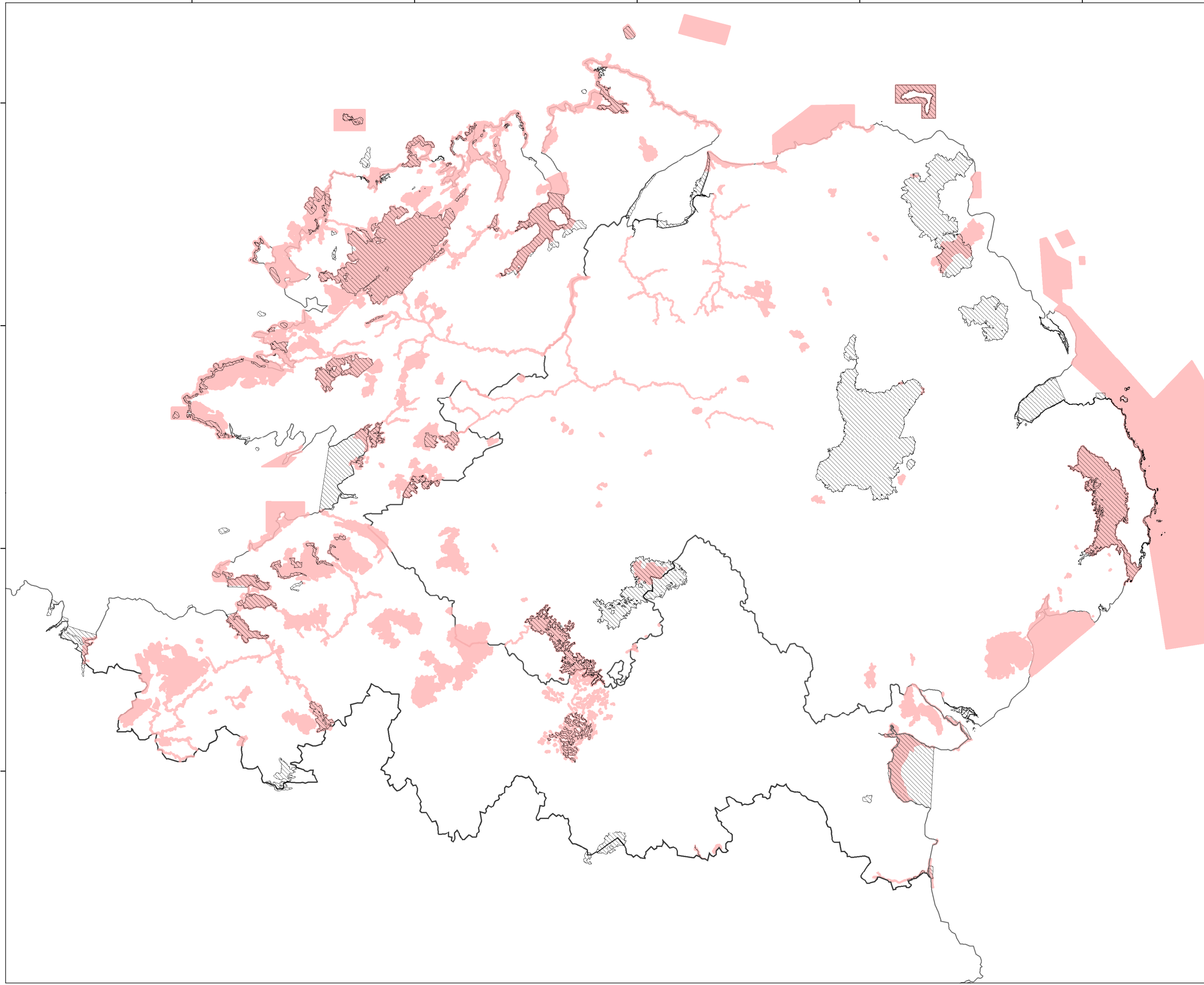
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-  Special Protection Area
-  Special Area of Conservation

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 Units: Meter

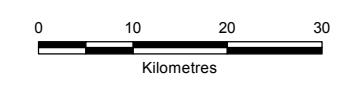


Rev	Date	Description	Drm	Chk	App
00	21/09/2020	First Draft	PT	NR	AA

**SEA of the PEACE PLUS Programme
2021 – 2027**



TITLE: Figure 1
 Natura 2000 Sites
 Map 1 of 1



SCALE: 1:800,000 @ A3



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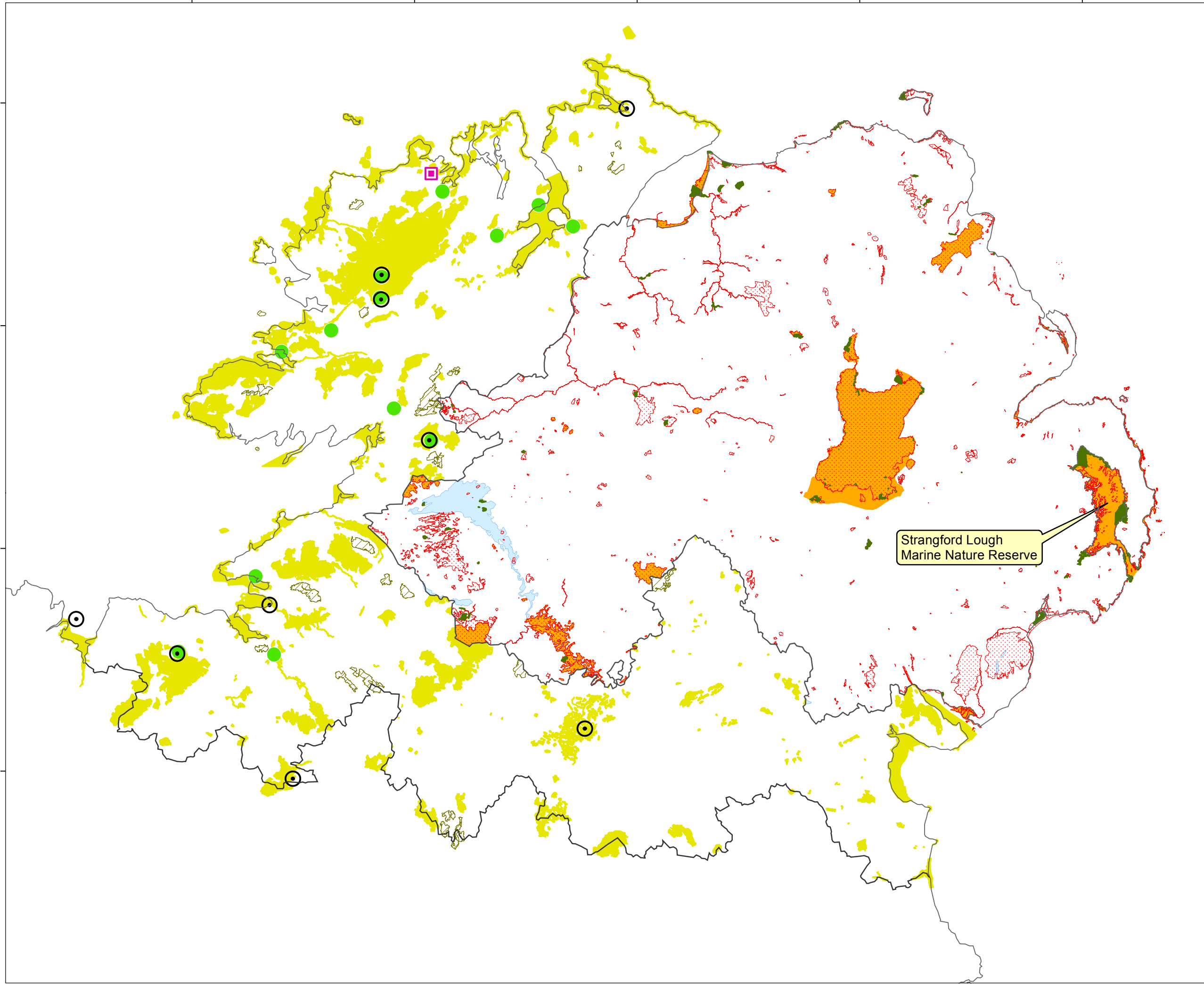
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- Northern Ireland**
- Ramsar
 - Areas of Special Scientific Interest
 - National Nature Reserves and Nature Reserves

- Border Counties of Ireland**
- Ramsar
 - National Nature Reserve
 - Refuge for fauna
 - Natural Heritage Areas
 - Proposed Natural Heritage Areas

Coordinate System: TM65 Irish Grid
 Projection: Transverse Mercator
 Datum: TM65
 Units: Meter

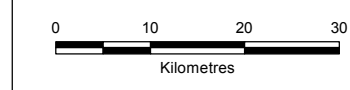


Rev	Date	Description	Drm	Chk	App
00	19/09/2020	First Draft	PT	NR	AA

**SEA of the PEACE PLUS Programme
2021 – 2027**



TITLE: Figure 2
 Other Designated Nature
 Conservation Sites
 Map 1 of 1



SCALE: 1:800,000 @ A3



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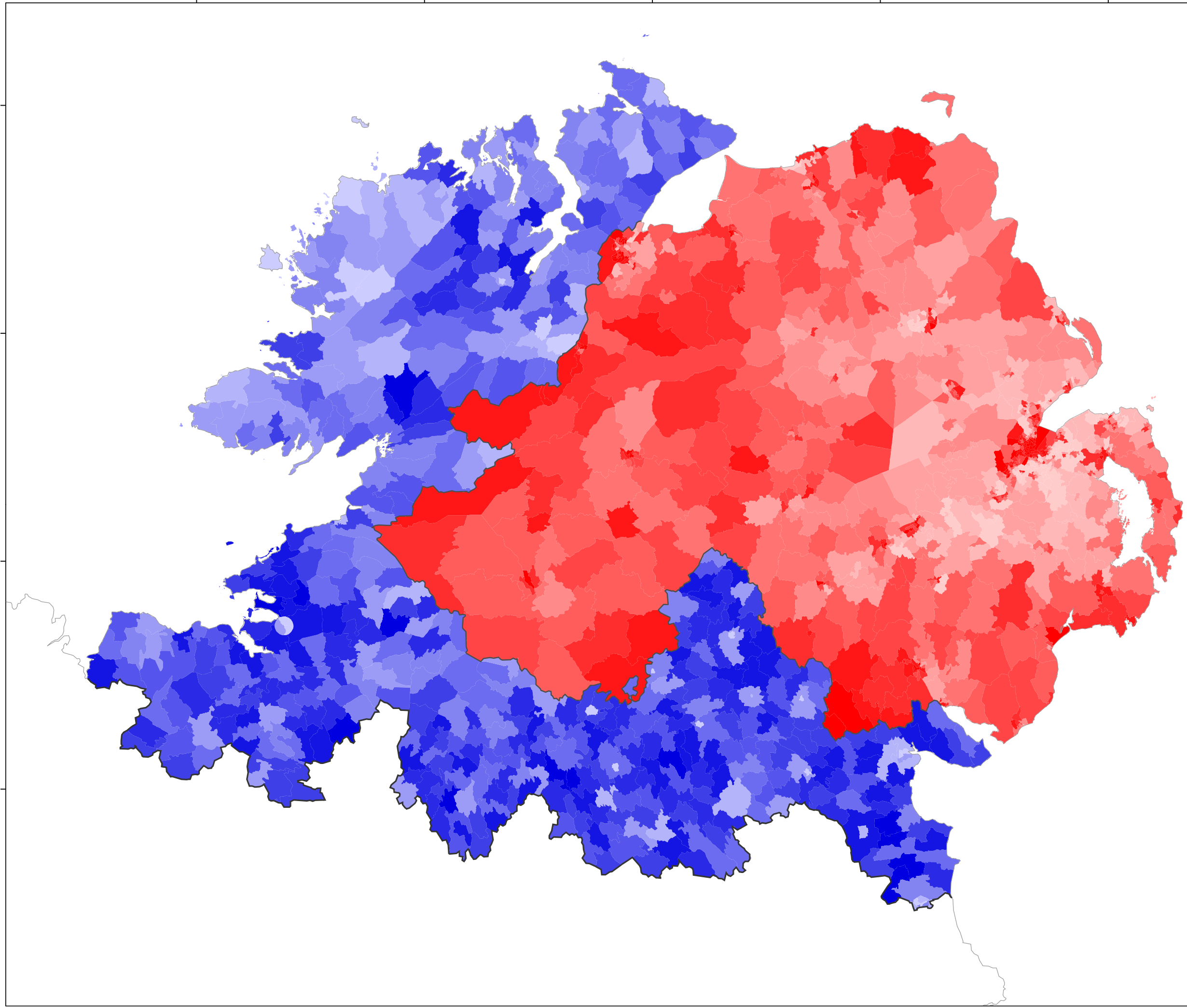
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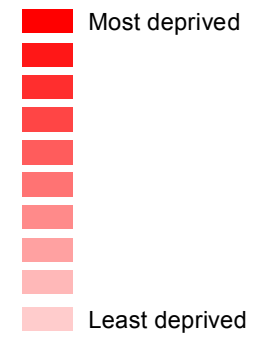
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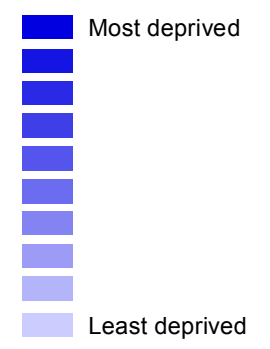
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Northern Ireland
Multiple Deprivation Measure (NI)
2017 Ranking
(by Super Output Area)



Border Counties of Ireland
Trinity National Deprivation Index (ROI)
2016 Ranking
(by Generalised Electoral District)



Notes:
 Data for illustrative purposes only and
 should not be used to compare deprivation
 between NI and ROI.

Coordinate System: TM65 Irish Grid
 Projection: Transverse Mercator
 Datum: TM65
 Units: Meter

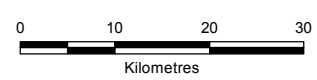


Rev	Date	Description	Drm	Chk	App
00	22/09/2020	First Draft	PT	NR	AA

SEA of the PEACE PLUS Programme
2021 – 2027



TITLE: Figure 3
 Deprivation Rankings for Northern
 Ireland and Ireland (Border Counties)
 Map 1 of 1



SCALE: 1:800,000 @ A3



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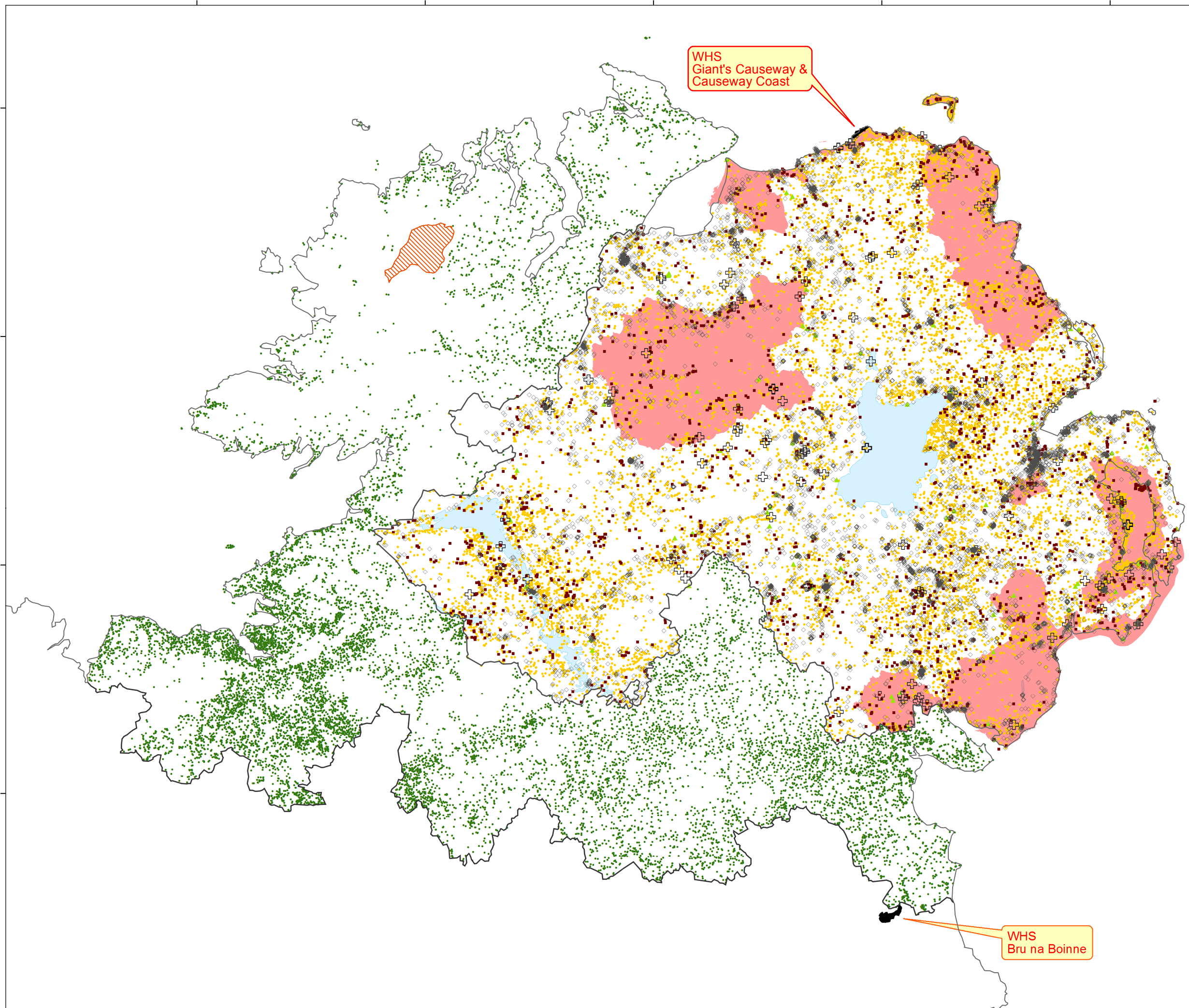
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WHS
Giant's Causeway &
Causeway Coast

WHS
Bru na Boinne

Northern Ireland

- World Heritage Site
- ◇ Listed Buildings
- AONB

Sites and Monuments Record (NISMR)

- Scheduled
- ▲ State Care
- ⊕ State Care and Scheduled
- Non-statutory

Border Counties of Ireland

- National Monument
- World Heritage Site
- ▨ National Park (Glenveagh)

Coordinate System: TM65 Irish Grid
Projection: Transverse Mercator
Datum: TM65
Units: Meter

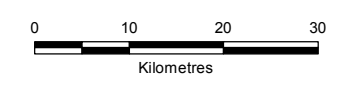


Rev	Date	Description	Drm	Chk	App
00	04/11/2020	First Draft	PT	NR	AA

**SEA of the PEACE PLUS Programme
2021 – 2027**



TITLE: Figure 4
Statutory Designations -
Landscape & Cultural Heritage Sites
Map 1 of 1



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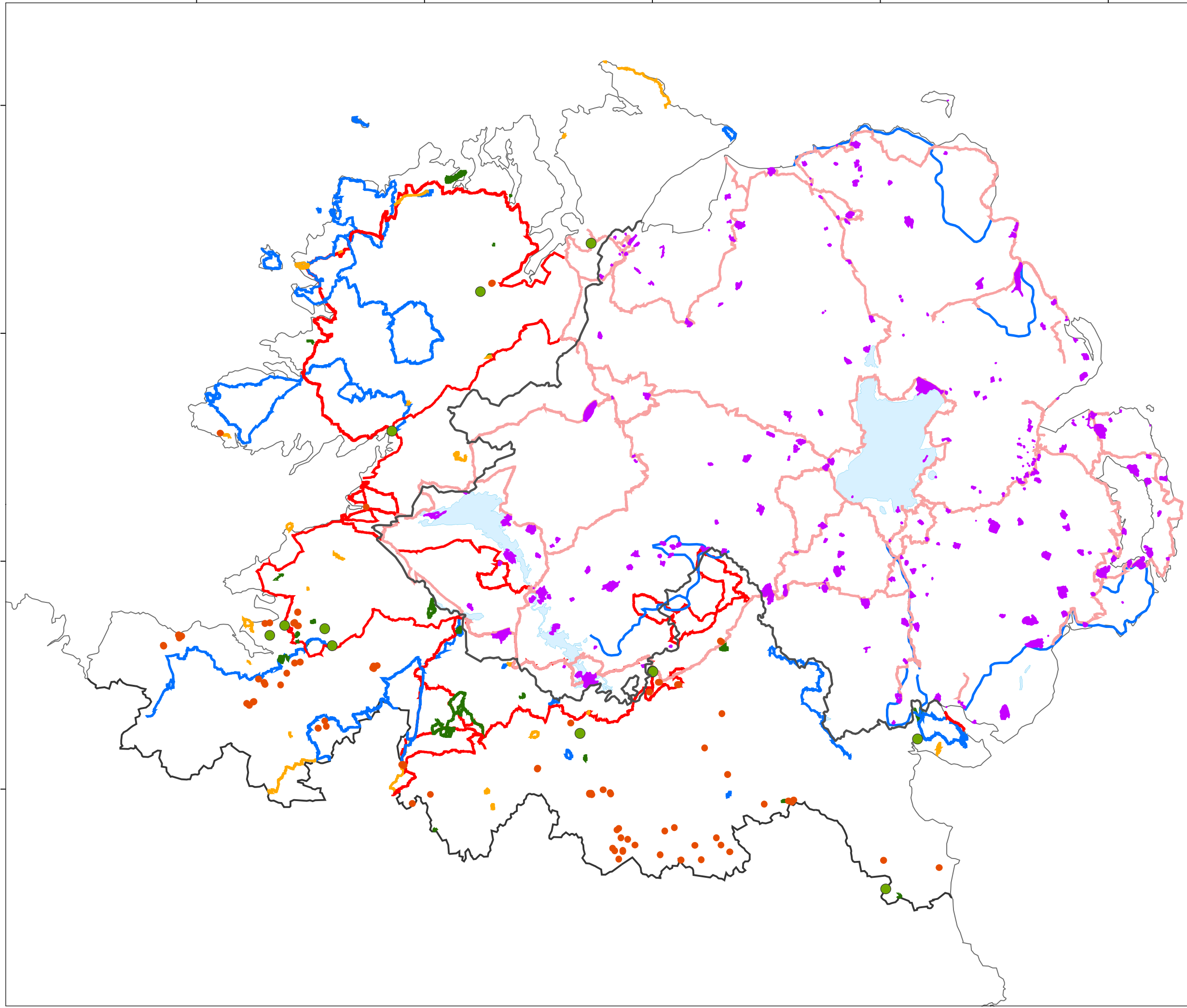
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Northern Ireland

- Historic Parks & Gardens
- Sustrans National Cycle Route
- National Waymarked Trails

Border Counties of Ireland

- National Monuments Service Designated Landscapes
- Accessible Monuments
- National Waymarked Trail
- Other walking trails
- Coillte Recreational Trail
- Cycle Route

Coordinate System: TM65 Irish Grid
 Projection: Transverse Mercator
 Datum: TM65
 Units: Meter

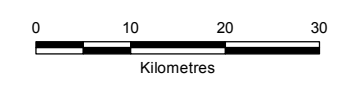


Rev	Date	Description	Drm	Chk	App
00	22/09/2020	First Draft	PT	NR	AA

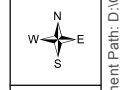
**SEA of the PEACE PLUS Programme
2021 – 2027**



TITLE: Figure 5
 Access and Sustainable Transport
 Map 1 of 1



SCALE: 1:800,000 @ A3



REV 00

© RSK ADAS Ltd
 Sources: NI: Historic Parks and Gardens - <https://www.opendatani.gov.uk>. Cycle routes - <https://data-sustrans-uk.opendata.arcgis.com/>
 Eire: Cycle routes and Walking trails - <https://data.gov.ie/dataset/sport-ireland-trails>. Monuments to visit - <https://www.archaeology.ie/monuments-to-visit>. National Monuments Service (NMS) - <https://data.gov.ie/dataset/national-monuments-service-archaeological-survey-of-ireland>
 NUTS: <https://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/administrative-units-statistical-units/nuts> under licence - EN: © EuroGeographics for the administrative boundaries.

Document Path: D:\Covid_19\IE\SEA_PeacePLUS_2021-2027\RSK_A3_SEA_PeacePLUS_AccessSustTransport.mxd

APPENDIX D: STATUTORY AND PUBLIC CONSULTATION RESPONSES

Statutory Consultee Comments

Comment ref.	Page of letter	ER Report ref.	Comment	Actions carried out to address comment
Organisation: Environment Protection Agency (EPA)				
Date received: 12/04/2021				
1	1		We acknowledge that the Programme supports the sustainable development of the Programme area. In seeking to improve educational and social aspects associated with the Programme, we also acknowledge that Theme 5: Supporting a Sustainable and Better-Connected Future promotes and supports education and social awareness of environmental resources within the Programme area as well as funding different environmental protection and sustainability initiatives. We also note and welcome the proposed investment areas under this theme: i) Biodiversity, Nature Recovery and Resilience; ii) Marine and Coastal Management, iii) Water Quality and Catchment Management, iv) Water Quality Improvement Programme, v) Geothermal Energy Demonstration Programme and vi) Enhanced Sustainable Travel Connectivity. These areas, if implemented correctly and supported by the appropriate monitoring and reporting should help provide for environmentally sustainable development and protection of our natural resources.	Noted
2	2		<p>Specific Comments on the Programme</p> <p>From a transboundary perspective, the Programme should consider and promote compliance with the requirements of the relevant environmental European directives (Water Framework, Floods Directive, Marine Spatial Planning Framework, Waste Framework, Air Quality, Habitats, Birds, Floods, SEA, EIA, etc). Potential transboundary effects arising from any proposed climate adaptation or climate mitigation measures should also be considered, as appropriate.</p>	<p>Project assessment stage and decision making on project support (Steering committee) can be used to cover this.</p> <p>Furthermore, there is a requirement for EIA as part of the application process.</p>

Comment ref.	Page of letter	ER Report ref.	Comment	Actions carried out to address comment
				<p>In addition to this, it is required that the programme and supported projects respect the horizontal principles, including: The objectives of the Funds shall be pursued in line with the objective of promoting sustainable development as set out in Article 11 TFEU, taking into account the UN Sustainable Development Goals, the Paris Climate Agreement and the "do no significant harm" principle. The objectives of the Funds shall be pursued in full respect of the EU environmental acquis.</p> <p>This is also assessed during project application stage.</p> <p>Finally, the Steering Committee and the Managing Authorities can</p>

Comment ref.	Page of letter	ER Report ref.	Comment	Actions carried out to address comment
				<p>set conditions for project to complete to be approved. These conditions will either need to be completed before the signature of the grant offer letter or they will be included as part of a clause in the grant offer letter, which has contractual nature.</p> <p>This is taken into account in the Monitoring Measures section of the SEA Statement.</p>
3	2		We welcome that the Programme refers to the European Green Deal and the UN Sustainability Development Goals as key documents within the context of the Programme.	Noted
4	2		The Programme should include a commitment to improve awareness of the value and benefits/opportunities of existing environmental resources, including where relevant associated ecosystem services. This may provide a means of nurturing a community-based approach to protection, valuing and sharing the environmental resources within the Programme area.	All projects are required to disseminate and capitalise in their projects. In addition in most Investment Areas there are actions for awareness raising. These are included in Theme 5.
5	2		The Programme would also benefit from including a commitment that any plans or projects arising out of implementation of the Programme, should take into account the requirements of the SEA, Habitats and EIA directives in particular, as relevant and where appropriate.	During the application process each project will need to demonstrate how, and to what extent,

Comment ref.	Page of letter	ER Report ref.	Comment	Actions carried out to address comment
				the project will contribute towards those strategic aims, targets and objectives set out in key policies/ strategies that are considered to be directly relevant to the project.
6	2		Additionally, projects funded under this Programme should be consistent with relevant recommendations in higher level plans in the planning hierarchy (for example biodiversity, water management, transportation, climate change, etc.).	See response to comments 2 and 5.
7	2		We also recommend that a commitment is included to link the SEA and Programme related monitoring and reporting aspects. This would allow the potential for likely significant effects, including cumulative effects, to be identified during Programme implementation and appropriate remedial action to be undertaken where necessary.	Noted
8	2	Table 6.1 and 6.2 (Table 7.1 and 7.2 in Final Report)	<p>Specific Comments on the SEA Environmental Report</p> <p>Chapter 6 – Assessment of Impacts</p> <p>We note the assessment of the specific objectives of the Programme against the SEA Objectives as outlined in Table 6.1 – High Level Matrix Assessment of Selected Strategic Alternative and Table 6.2 Detailed Matrix Assessment. Where Investment Priorities are predicted to have uncertain or adverse effects at the high-level assessment stage, the Programme should ensure the inclusion of appropriate mitigation measures.</p>	Additional mitigation added to Section 8.2.
9	3	Section 6.5 (Section 7.5 in Final Report)	The inclusion of Section 6.5 – Cumulative Effects Assessment is noted. The assessment of the specific objectives and policies of relevance against the aims of the Programme is also noted. We welcome that the EPA’s guidance on cumulative effects assessment in SEA (EPA, 2020) has been taken into account.	Noted
10	3	Appendix B	In addition to the programmes to consider, referred to in our SEA scoping submission, issued on the 30th October 2020, the following additional programmes should also be considered, as	Additional plan & programmes reviewed

Comment ref.	Page of letter	ER Report ref.	Comment	Actions carried out to address comment
			<p>relevant and appropriate:</p> <ul style="list-style-type: none"> - CAP Strategic Plan 2023-2027 - Draft Flood Risk Management Plan for Northern Ireland - Interim Climate Actions 2021 - Waste Action Plan for a Circular Economy - EU Climate Adaptation Strategy 2021 	and added as Appendix B2 to the ER.
11	3	Chapter 7	<p>Chapter 7 Mitigation and Recommendations</p> <p>We acknowledge the suggested mitigation measures to help minimise adverse effects (including general measures and ecosystem service aspects) and recognising the need to consider biodiversity and ecosystem service enhancements, where possible. A clear objective should be included that requires projects funded under the Programme to be consistent with relevant recommendations in higher level plans in the planning hierarchy (for example land use, biodiversity, water management, transportation, climate change, etc.).</p>	See response to comments 2 and 5
12	3	Chapter 8	<p>Chapter 8 - Monitoring</p> <p>The SEA should provide more specific information in terms of the proposed monitoring programme. Where potential adverse effects have been identified, there is merit in including details of monitoring frequency and bodies responsible for carrying out the monitoring of the relevant environmental criteria, where possible.</p>	Full monitoring proposals to be included in the SEA Statement.
13	3	Chapter 8	<p>There may be merit in providing information on the previous monitoring programme to help inform the monitoring programme for this iteration of the Programme. Additionally, the findings of the previous monitoring could help identify how the new monitoring programme can be improved for particular environmental criteria.</p>	Noted but available level of data from previous programme does not permit this level of analysis.
14	3	Chapter 8	<p>We also suggest linking both Programme and SEA related monitoring aspects. There is also merit in linking Programme-related monitoring with environmental performance related monitoring and reporting.</p>	See response to comment 12
15	3	Chapter 8	<p>Guidance on SEA-related monitoring is available on the EPA website at https://www.epa.ie/pubs/advice/ea/guidanceonseastatementsandmonitoring.html</p>	Guidance has been used.
16	4		<p>Ireland's Environment: An Integrated Assessment 2020</p> <p>In finalising the Programme and integrating the findings of the SEA into the Programme, the</p>	Relevance to the baseline section considered

Comment ref.	Page of letter	ER Report ref.	Comment	Actions carried out to address comment
			<p>recommendations, key issues and challenges described in our State of the Environment Report Ireland's Environment – An Integrated Assessment 2020 (EPA, 2020) should be considered, as relevant.</p>	<p>particularly with reference to the key issues and challenge as referred. Addressed in Section 4.5.</p>
17	4		<p>Delivering Ireland's long-term sustainable development and environmental protection goals will require a concerted effort by many stakeholders to address these key actions. These actions are:</p> <ol style="list-style-type: none"> 1. National Policy Position for Ireland's Environment - Recognition of the need for an integrated policy position given the many interlinkages and dependencies. 2. Full Implementation of existing environmental legislation and review of governance/coordination on environmental protection across public bodies 3. Promote the benefits of a clean environment for health and wellbeing 4. Systemic change is needed for Ireland to become climate neutral and a climate resilient society and economy. 5. WHO clean air quality guideline values to be adopted within the Clear Air Strategy as specific targets to achieve. 6. Safeguard nature and wild places as a national priority to preserve its legacy for future generations 7. Improve the water environment and tackle water pollution water quality locally at a water catchment level. 8. Reduce human induced pressures on the marine environment 9. Move away rapidly from extensive use of fossil fuels to the use of clean energy systems 10. An agriculture and food sector that demonstrates validated performance around producing food with a low environmental footprint. 11. Drinking water and wastewater infrastructure must meet the needs of our society 12. Move to a less wasteful and circular economy where the priority is waste prevention, reuse, repair and recycle. 13. Promote integrated land mapping approaches to support decision making on sustainable land use. 	Noted

Comment ref.	Page of letter	ER Report ref.	Comment	Actions carried out to address comment
18	4		<p>Future Amendments to the Programme</p> <p>You should screen any future amendments to the Programme for likely significant effects, using the same method of assessment applied in the “environmental assessment” of the Programme.</p>	Noted to add in Management Control Systems for section on programme amendments.
19	4		<p>SEA Statement – “Information on the Decision”</p> <p>Once the Programme is adopted, you should prepare an SEA Statement that summarises:</p> <ul style="list-style-type: none"> • How environmental considerations have been integrated into the Programme; • How the Environmental Report, submissions, observations and consultations have been taken into account during the preparation of the Programme; • The reasons for choosing the Programme adopted in the light of other reasonable alternatives dealt with; and, • The measures decided upon to monitor the significant environmental effects of implementation of the Programme. 	To be taken into account in preparation of the SEA Statement.
20	5		You should send a copy of the SEA Statement with the above information to any environmental authority consulted during the SEA process.	To be carried out on completion of the SEA Statement.
21	5		Guidance on preparing SEA Statements is available on the EPA website at the following link: https://www.epa.ie/pubs/advice/ea/guidanceonseastatementsandmonitoring.html	To be taken into account in preparation of SEA statement.
Organisation: Department of the Environment, Climate and Communications - Geological Survey Ireland				
Date received: 30/04/2021				
22	1		Please see our website for data availability. We recommend using these various data sets, when conducting the EIAR, SEA, planning and scoping processes. Use of our data or maps should be attributed correctly to ‘Geological Survey Ireland’.	Noted
23	1	Section 3.3	We are pleased to see that geological heritage has been included as a sub-objective in Section 3.3 of the SEA report and note that SEUPB is not a Local Authority and development and planning is not within their remit.	Noted

Comment ref.	Page of letter	ER Report ref.	Comment	Actions carried out to address comment
24	1	Section 4.4	We are pleased to see reference to the cross-border Marble Arch Caves Global Geopark in Section 4.3 of the SEA report. We also note the mention of our Geohazards, Minerals/Aggregates, Marine and Coastal Unit and Tellus datasets within the SEA Report.	Noted
Organisation: Department of Environment, Climate and Communications - Inland Fisheries Ireland				
Date received: 12/05/21				
25	1		We note Theme 5 is of most significance in relation to inland fisheries. We also note that IFI comments submitted in October 2020 appear to have been taken on board. From a fisheries perspective we have no further comments at this time.	Noted
Organisation: Department of Agriculture, Environment and Rural Affairs - Northern Ireland Environment Agency				
Date received: 12/05/2021				
26	1		The layout and content of the Environmental Report is well laid out and easy to follow. DAERA SEA Team is content that the environmental report and the process of consultation follow the SEA Directive.	Noted
27	1		The Peace Plus Programme 2021-2027 and accompanying Environmental Report have been made available to designated authorities, transboundary bodies and the public. DAERA is happy previous consultations, including the SEA scoping, are documented in the appendixes and the actions relating to each of the comments detailed. A description of the current state of the environment and how this relates to the proposed Peace plus Programme is included within the environmental report. Appropriate environmental objectives / targets / indicators for each of the likely environmental receptors is addressed including consideration of alternatives, an assessment of significant impact and complemented with mitigation measures and monitoring programme.	Noted
28	2	Chapter 6 (Chapter 7 in Final Report)	Natural Environment Division (NED) Comments Chapter 6 Assessment of Impacts NED note the specific locations for impacts from the Peace Plus Programme 2021-2027 are unknown at this stage. However across all Themes, with the exception of Theme 5 "Supporting a Sustainable and Better Connected Future", the assessment matrix has scored the Ecology and Nature Conservation SEA objective as Neutral/No effect. Although NED do not necessarily object to this rating/scoring approach, it is thought at +/- Uncertain effect may be more appropriate, due to the unknown nature of the investment areas likely funding. E.g. Theme 1 IA4 Re-imaging Communities, actions to be supported by	The assessment is necessarily limited by the level of project information available at this stage. The potential for significant adverse effects is expected to be limited in most cases by

Comment ref.	Page of letter	ER Report ref.	Comment	Actions carried out to address comment
			the Peace Plus include “the development of re-imaged and new facilities”. While we note that this is likely to be in urban area and involve regeneration this along with new facilities have the possibility of having environmental impacts e.g. located within/in proximity to designated sites or priority habitat. With this in mind NED believe some of the investment areas impact rating could be reassigned to +/- uncertain effect. Any funding that may involve additional infrastructure including bringing/enhancing technologies into rural areas may also need re-consideration. Full assessment relating to the types of impacts will have to be undertaken when specific project details and locations are known.	the nature of the activities funded and the expected locations. However the concerns raised are noted and it is proposed to include an additional mitigation level to require project level environmental appraisal by SEUPB prior to funding decision. Addressed in Section 8.2.
29	2	Section 6.4 (Section 7.4 in Final Report)	NED is in agreement with Theme 4 Healthy and Inclusive Communities and Theme 5 Supporting a Sustainable and Better Connected Future being carried forward to the detailed assessment stage with the potential outcome of minor / negligible adverse effect predicted on ecology / natural heritage.	Noted
30	2	Section 6.5 (Section 7.5 in Final Report)	We would like to draw your attention to a minor typo in section 6.5.4, “PEACE PLUS Programme is not anticipated to cause significant adverse effects on Nature 2000 sites”, Nature 2000 should be corrected to read Natura 2000.	Corrected in final ER.
31	2&3		Marine Plan Team Comments: It is noted that references to the Marine Strategy Framework Directive and the Maritime Spatial Planning Directive have now been included within Annex B. It is also observed the list of plans, programmes and environmental protection measures in Annex B are no longer categorised under SEA topic areas. Although the marine aspect is not explicitly included in all of the relevant SEA Objectives, it is observed that a number of the SEA Sub-Objectives are more	Noted

Comment ref.	Page of letter	ER Report ref.	Comment	Actions carried out to address comment
			inclusive in this regard. The inclusion of seascape and seascape character areas within the Summary of Baseline Data, and the inclusion of the 2014 Northern Ireland Regional Seascape Character Assessment within the list of references is noted. Recognition of the beneficial effects on water and ecology and nature conservation in the marine area under Transboundary Effects is noted. In addition, the need for the programme to comply with cross-jurisdictional environmental legislation, which extends into the marine environment, is welcomed.	
32	3		<p>Inland Fisheries Comments: Inland Fisheries is generally content with the overall document as provided.</p>	Noted
33	3	Section 4.4	<p>In Section 4 the Material Assets - Strengths and Opportunities - Northern Ireland - it has been stated that: 'Northern Ireland has significant natural resources such as water, carbon rich soils and high quality grassland, whilst natural resources are also available for renewable energy generation e.g. wind, hydro, marine, biomass and solar.' It should be noted that this, in relation to renewable energy generation - Hydro-generated power could also be seen as a weakness. There is great risk associated with Hydro development and should be treated with extreme caution, as the potential impacts are high in relation to migratory fish species and with particular attention to transboundary impacts. For this reason, Inland Fisheries welcomes the statements below.</p> <p>2.8.2 IA1: Biodiversity, Nature Recovery and Resilience presents an opportunity to build upon current INTERREG VA Programme by continuing to promote cross border cooperation and facilitating the recovery of additional protected habitats and priority species. Investment will be directed towards further delivery of conservation actions proven to redress biodiversity loss and preserve these important environmental, social and economic assets.</p> <p>2.8.7 IA4: Water Quality Improvement Programme will result in an improvement in the water quality of three specific transitional water bodies: Lough Erne, Lough Melvin and Donegal Bay through cross border collaboration. In addition, raw drinking water quality will be improved through the reduction of pollutants, including those of an agricultural nature.</p> <p>2.8.8 Actions specified under IA4 include: - The production of enhanced fishery assessments</p>	Noted

Comment ref.	Page of letter	ER Report ref.	Comment	Actions carried out to address comment
			for both Lough Erne and Lough Melvin; - Upstream catchment based initiatives to encourage uptake of catchment measures that achieve multiple benefits for water quality, quantity and biodiversity: As a statutory consultee, Inland Fisheries will continue to consult on any planning applications made by participants in the programme that may have potential transboundary impacts. Inland Fisheries welcomes the SEA's particular reference to these systems and given their transboundary nature the potential for co-operation concerning any proposed development within these catchments. The programme also has the potential to identify mutually beneficially programmes of research and/or conservation. Inland Fisheries welcomes the approach adopted in the SEA documents provided and sees great opportunities therein.	
34	4	Appendix A	Department for Communities Historic Environment Division Comments: HED welcome the demonstration of consideration of the comments provided at scoping stage as demonstrated in the table in Appendix A.	Noted
35	4	Section 4.4	In relation to bullet point 2, page 38 Weaknesses and Threats we advise the following reference is useful in relation to this issue. •Harkin, R. 2015 Anything goes: architectural destruction in Northern Ireland after 'the Troubles'. In J.M. Mancini and K. Bresnahan (eds) Architecture and Armed Conflict, 147-163. London: Routledge.	Noted
36	4	Section 4.4	For the purpose of clarity, we advise that the example of historic landscape characteristics cited in our previous response (dated 26/10/2020) - that which is in relation to townlands and parish boundaries -is a characteristic, which exists throughout the island.	Added to Section 4.3.
37	5	Chapter 6 (Chapter 7 in Final Report)	HED note and agree that there is limited direct interaction between the programme and cultural heritage, and that at this stage specific locations for interventions are unknown. We therefore broadly concur with the scoring approach around potential impacts on the historic environment in the assessment matrices. We highlight the intertwined nature of the historic environment with the natural environment and landscape, when the potential for effects can be comparable, e.g. when there is potential for impact on previously unidentified remains through new construction or when greenway infrastructure makes use of a heritage asset such as a canal or abandoned railway. We are mindful that assessment in relation to these types of impacts can be implemented when specific locations are known.	Noted

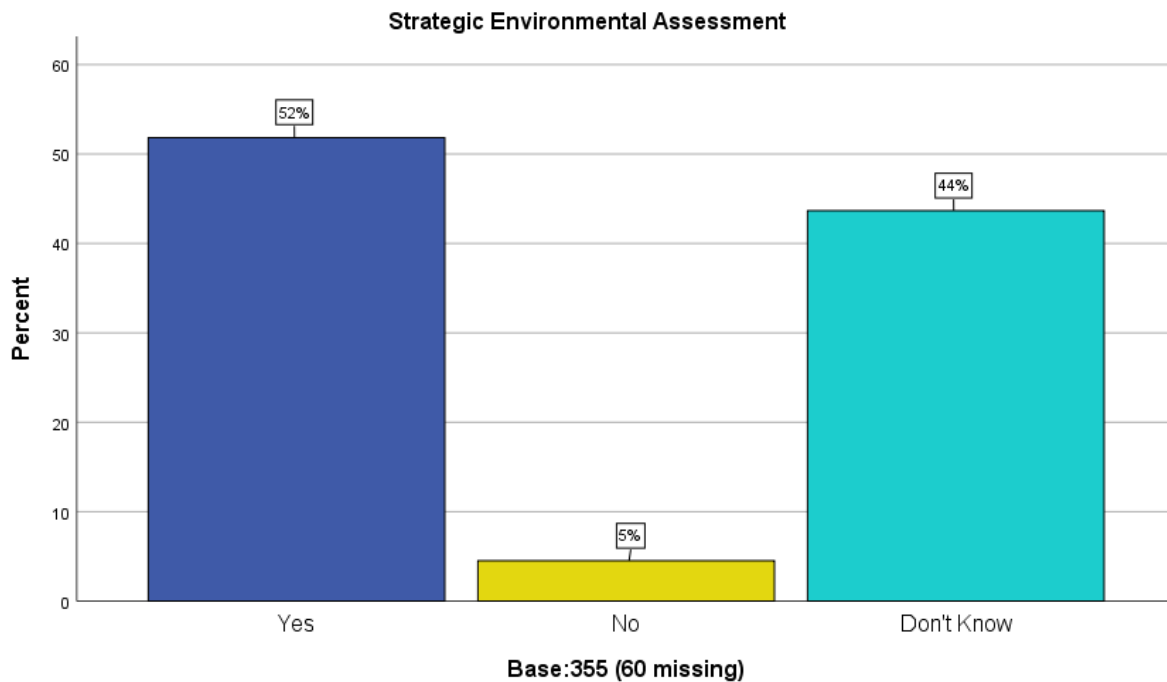
Comment ref.	Page of letter	ER Report ref.	Comment	Actions carried out to address comment
38	5		<p>Natural Environment Division (NED) Comments NED agrees with the Habitat Regulation Assessment Screening that the PEACE PLUS Programme is not anticipated to cause significant adverse effects on Natura 2000 sites. However, as specific locations for impacts from the Peace Plus Programme 2021-2027 are unknown at this stage, full assessment relating to the types of impacts will have to be undertaken once specific project details and locations are known.</p>	Noted, see additional mitigation measurements now proposed in response to comment 28. These will also consider effects on designated sites.
39	5		<p>Marine Conservation and Reporting Overall, content with the conclusions of the HRA though some specific comments on the HRA screening report are included below: Table 4.3 Overall status of Annex II, IV and V Species in NI has not included Harbour porpoise, Harbour seal or Grey seal.</p>	Noted but not anticipated to change conclusions of the screening exercise.
40	5		Figure 4.1a Natura 2000 Sites has not included the East Coast Marine proposed SPA or Carlingford Lough proposed SPA marine extension.	Noted but not anticipated to change conclusions of the screening exercise.
41	5		Under Theme 5 (Section 5.2.8), it is concluded that each, the investment areas will either have a negligible or positive effect on the Natura 2000 sites and on this basis the PEACE plus programme should screen out of further consideration through the HRA process. It is recommended that once the investment areas are fully defined in terms of proposal and relevant designated site the screening should be repeated to determine if any potential effects are likely from the individual plans/projects.	See response to comment 38.
42	6		DAERA is content with the contents of the Environmental report and Habitat Regulation Assessment Screening Report.	Noted

Comment ref.	Page of letter	ER Report ref.	Comment	Actions carried out to address comment
Organisation: Department of Agriculture, Food and the Marine				
Date received: 12/05/2021				
43	1		<p>Commercial sea fishing is a long standing, pre-existing and traditional activity in the marine environment. The evaluation and consideration of potential impacts and supports for 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, and at every stage of any planning/proposal process and during the process itself, to discuss any changes that may affect them to afford a chance for their input. Commercial sea fishing is a traditional livelihood in the border coastal counties. It is important to support this livelihood. Fishers' interests and livelihoods must be fully recognised and taken into account.</p>	<p>Noted but Programme is not anticipated to have any negative effects for fisheries or fishing communities. Fisheries are not supported through PEACE PLUS, this is outside the scope of the programme.</p>
44	1		<p>One aspect that does not appear to be very well highlighted is any measure to address the fact that post Brexit we now have two separate policy frameworks governing the management and protection of marine resources and biodiversity around the island of Ireland, and this could pose difficulties particularly in the transboundary areas. On the EU/ROI side we have the Common Fisheries Policy, the Marine Strategy Framework Directive, Marine Spatial Planning Directive, the Water Framework Directive and birds and habitats directives, and on the UK/NI side we have the transposition/equivalent of those in UK law. It would appear that there should be some consideration in the Peace Plus programme to facilitate collaboration across agencies in both jurisdictions working with the implementation of these policies. As it stands the programme refers to transboundary action plans for various types of surveys and some work on the circular economy and marine litter. The activity on biodiversity Marine Protected Area's and climate action plans are restricted to local activities. If there is scope for future deviation of marine policy for NI and ROI waters, then there should be an aspect of the Peace Plus programme which facilitates interagency collaboration across the island of Ireland to work towards a harmonious implementation of common goals; this would benefit the citizens of both jurisdictions and potentially afford more effective protection of the marine environment.</p>	<p>The Investment Area 6.1 . Building and Embedding Partnership and Collaboration will focus on strategic planning and engagement in cross border basis. The focus of this is to find solutions to barriers to transboundary actions. This can include changes due to Brexit to Environmental policy framework and governance. This will depend on the projects applying for funding.</p> <p>Theme 5 will also</p>

Comment ref.	Page of letter	ER Report ref.	Comment	Actions carried out to address comment
				contribute cross border strategies and action plans, in this case directly linked to Environment.
Organisation: Development Applications Unit (DAU) Department of Housing, Local Government and Heritage / National Parks and Wildlife Service				
Date received: 12/05/2021				
45	1		These observations are intended to assist you in assessing the impacts that may arise in relation to European sites, other nature conservation sites, biodiversity and environmental protection in general in the context of undertaking environmental assessment of the PEACE PLUS programme (PPP). Their aim is to support and encourage SEUPB to integrate compliance with environmental legislation, environmental risk mitigation and biodiversity awareness into the PPP. National Parks and Wildlife Service (NPWS) staff are available to discuss these observations and other nature conservation issues arising from the preparation of the PPP.	Noted
46	1		The Department welcomes the detailed consideration of biodiversity and related matters in the SEA Environmental Report. The Department welcomes the inclusion of mitigation.	Noted
47	2		The Department notes the outcome of the Habitats Regulations Screening Report and the conclusions reached. The Department also notes the requirement for screening for appropriate assessment in relation to all downstream plans and projects arising from the PPP and encourages the PPP to put in place mechanisms to ensure that this consideration is integrated into plans and projects which arise from the implementation of the PPP.	Agree that downstream plans will need screening for HRA. Projects will be subject to an additional level of environmental appraisal as response to comment 28.

Public Consultation Responses

Q.19 Do the findings from the Strategic Environmental Assessment (SEA) for the PEACE PLUS Programme cover all the relevant information?



Over half (52%) of the respondents (184) agreed that the findings from the Strategic Environmental Assessment for the PEACE PLUS Programme covered all the relevant information. 44% did not know (155) and 5% (16 respondents) did not agree that the SEA covered all the relevant information.

Q.20 If no, what else do we need to consider and why?

Yes

- Important that CICs are considered for funding in Peace Plus
- NI contains significant proportions of UK's remaining blanket bog, many of which are cross-border. Ireland has a higher proportion of this in border counties and can offer much shared experience. This report highlights the paucity of knowledge in relation to the peatlands of NI. Conversely, NI contains a higher number of Ramsar wetlands in border regions, providing the potential for invaluable knowledge exchange and promotion in the opposite direction. As highlighted in the SWOT analysis, these shared peatland catchments also offer significant natural capital value, in terms of carbon storage and sequestration potential, biodiversity, water quality,

amenity and cultural value. Positives from this include: Promotion of environment related volunteering activities in cross-community and cross-border engagement programmes; Support for environment, sustainability and climate themed education programmes; Improving the condition of designated sites; and the greening of shared spaces.

- The preparation of this submission has involved in a number of conversations with cross-border partners who will also submit their own views on the potential for collaboration.
- Fully support the approach in line with European Directive 2001/42/EC12
- Happy that Alternative 5 can deliver once complimented by existing and emerging resource and funding opportunities. No application should be excluded if investment/funding secured in that area - consider synergy and complimentary and catalyst for change and growth.
- XXXX is confident that SEUPB have completed due diligence on the Environmental considerations in line with Northern Ireland and Ireland's legislative requirements.
- Community Leadership training is essential to support people to take collective actions. Actions for change through Community Organising - including communication, working with others, influencing and driving change.
- Include Rural Communities.

No

- Recommend following amends to sub-objs to better identify those IA for which uncertainties or potential adverse effects may arise. 1.g at a time of a nature emergency should be achieving biodiversity net gain. 2.d should include reference to the natural environment. 3.d should reference Green Recovery. 4.a not always the highest quality soil & land needs safeguarding for benefit of biodiversity e.g species rich grassland-this needs wider consideration. 7.b renewables in harmony with nature required-nature & climate emergency. 8.a should be within environmental limits & include need to reduce. 8.b should include reference to move away from fossil fuel use. 8.c should include reference to sustainable. 11-generally-stronger wording than 'encourage' in face of nature & climate emergency. Elsewhere in doc. examining cumulative effects, wider project/prog range required HRA should be available for review.
- The assessment provides good coverage of the relevant information. The strengths /opportunities in most areas can be expanded, but that will be the aim of the PEACE PLUS programme. An obvious shortcoming is the focus on the terrestrial environment in the "current status of the environment" with little mention of the marine environment given the geographical island status and significant impact this has on the climate and future sustainability. It is an important component of natural capital, societal well-being and underpins the economic prosperity. This and the importance in terms of resilience and finding solutions to environmental challenges should be recognised & addressed. The economy of the region is very agriculture driven and the challenges in terms of environmental sustainability is not

adequately included. This should be of course seen in the context of the importance of this sector and the need for a comprehensive effort to achieve environmental & economic sustainability.

- The XXXXXXXXXXXXXXX supports the submission of member organisation the Bird Watch Ireland (BWI), which welcomes the inclusion of SEA Objective 11 Natural Capital (Table 3.2) but is concerned around the limiting effects of some sub-objectives. BWI recommends amending some of the sub-objectives to better identify those IAs for which uncertainties or potential adverse effects may arise. Recommendations are as follows: 1.g Given the current nature and climate emergency, the programme should aim to achieve biodiversity net gain rather than avoid net loss. 2.d should include reference to the natural environment and 'access to' as well as promotion of recognition. 3 should include a specific objective of supporting a Green Recovery. 4.a should not confine itself to the highest quality land and soil, soil and land that are not the 'highest quality' also need safeguarding and improving.
- The importance of geothermal is widely underestimated by the report. Switching from fossil fuels to sustainable geothermal heat will avoid the release of CO₂ to the air and prevent climate change. This is critical to maintain habitats and conserve the environment. The report must change to reflect this. Geothermal is a game changer, it is the only renewable energy resource that is available 24/7 and is scalable to local demands/needs. The basins across Ulster have some of the highest geothermal gradients in the British Isles, we should and must exploit this.
- The report is comprehensive and well written. The report correctly highlights in the Climate Change section an over reliance on the private car in Northern Ireland. Whilst alternative technologies will assist with decarbonising and reducing harmful emissions from transport, a greater focus on transport efficiency and modal shift to sustainable public transport is required. The use of public transport instead of the private car immediately reduces the carbon footprint of a journey by at least 50% and more if low or zero emission buses/trains are utilised. Translink would highlight that an efficient, frequent, sustainable and accessible public transport system such as an improved Cross Border Rail Service will reduce private car usage/ownership and therefore can significantly reduce greenhouse gas emissions. The Peace Plus Programme and theme 5.6 in particular provide a real opportunity to support modal shift from the private car onto sustainable PT.
- We welcome the inclusion of SEA Obj.11 Natural Capital but have concerns around some sub-objectives. We recommend the following amendments: 1g. At a time of a nature & climate emergency should be achieving biodiversity net gain 2d. Should include reference to the natural environment & 'access to' as well as promotion of recognition 3d. Should reference Green Recovery 4a. Not always the highest quality soil & land needs safeguarding for benefit of biodiversity e.g species rich grassland-this

needs wider consideration 7b. Renewables in harmony with nature required nature & climate emergency 8a. Should be within environmental limits & include need to reduce 8b. Should include reference to move away from fossil fuel use 8c. Should include reference to sustainable 11. Stronger wording than 'encourage' is required The programme should take account of all Planning Policy Statements and new LDPs currently in preparation by councils. HRA should be available for review

- We would suggest that the following points are clearly added to the EIA reflecting developments that should be included in the Environmental Improvement Plan later this year to be monitored by the Office of Environmental Protection. For inclusion - net environment gain for all developments, net zero emissions, stronger recognition of cumulative impacts for proposed developments.
- Where is the security assessment and strategy
- Whilst drinking water compliance is high, there are issues with the raw water in drinking water catchments (not currently in the SEA) that impact energy and treatment costs as well as issues that impact WFD compliance. Pesticides and other parameters have led to water quality exceedances causing regulatory enforcements. (NI Water Drinking Water Quality Annual Report 2019, Approaches to herbicide (MCPA) pollution mitigation in drinking water source catchments using enhanced space and time monitoring - ScienceDirect). These issues are due to poor land management practices. The SEA should consider improvements required in many drinking water catchments in addition to Erne/ Melvin/ Donegal Bay, and represent all Water Quality issues, enabling drinking water quality projects to also be progressed.

Don't know

- xxxxxxxx has no specific expertise in this area and therefore will not comment in any further detail. However, xxxxxx welcomes reference to the SDGs and believes that the SDGs should form the framework informing the Programme. The SDGs are agreed as a global compact, and are binding on both the UK and Ireland, as State Parties to the Paris Agreement. They are also focused on promoting wellbeing for all and supported by a validated indicator set that can underpin all monitoring in a way that assists Northern Ireland in the global economy. They also support interlinkage between issues, which is critical to ensure value for money and the best outcomes. xxxx also welcomes the alignment with the European Green Deal. The climate emergency is global and requires collaborative international action.
- Need to ensure balance with economic needs on the ground.

Organisations who agree the SEA does include/does not include the relevant information

Number/percentage of organisations who believe the findings do/do not/don't know if the SEA includes all the relevant information by how they describe their organisation. Please note 37.5% of environmental organisations who responded to the survey do not feel it includes all the relevant information. Total of 14 environmental organisations.

Description of respondent * SEA Crosstabulation

Description of respondent		SEA			Total
		Yes	No	Don't Know	
N/A	Count	14	2	18	34
	% within SEA	7.9%	12.5%	12.2%	10.0%
Business Organisation	Count	11	0	4	15
	% within SEA	6.2%	0.0%	2.7%	4.4%
Community/Voluntary Organisation	Count	63	2	64	129
	% within SEA	35.6%	12.5%	43.2%	37.8%
Social Enterprise	Count	4	0	9	13
	% within SEA	2.3%	0.0%	6.1%	3.8%
Cross Border Group	Count	3	0	2	5
	% within SEA	1.7%	0.0%	1.4%	1.5%
Education	Count	10	1	4	15
	% within SEA	5.6%	6.3%	2.7%	4.4%
Environmental Organisation	Count	4	6	4	14
	% within SEA	2.3%	37.5%	2.7%	4.1%
Government Agency	Count	7	1	3	11
	% within SEA	4.0%	6.3%	2.0%	3.2%
Government Department	Count	1	0	2	3
	% within SEA	0.6%	0.0%	1.4%	0.9%
Higher Education	Count	12	1	6	19
	% within SEA	6.8%	6.3%	4.1%	5.6%
Local Authority	Count	15	0	6	21
	% within SEA	8.5%	0.0%	4.1%	6.2%
Political Party	Count	1	0	0	1
	% within SEA	0.6%	0.0%	0.0%	0.3%
Private Sector	Count	1	0	3	4
	% within SEA	0.6%	0.0%	2.0%	1.2%
Research Organisation	Count	2	1	4	7
	% within SEA	1.1%	6.3%	2.7%	2.1%
Youth Organisation	Count	12	0	7	19
	% within SEA	6.8%	0.0%	4.7%	5.6%
Other	Count	17	2	12	31
	% within SEA	9.6%	12.5%	8.1%	9.1%



Total	Count	177	16	148	341
	% within SEA	100.0%	100.0%	100.0%	100.0%

APPENDIX E: ASSESSMENT OF ALTERNATIVES MATRICES

PEACE PLUS: Alternative 3 High Level Matrix		SEA OBJECTIVES										
		1	2	3	4	5	6	7	8	9	10	11
Thematic Areas and Objectives		Ecology & Nature Conservation	Population & Socio-economics	Health & Quality of Life	Soil & Land Use	Water	Air Quality	Climate	Material Assets	Historic Environment	Landscape	Natural Capital
Thematic Area 1: Building peaceful and thriving communities												
1.4	A more social Europe, implementing the European pillar of social rights	0	+	+	0	0	0	0	0	0	0	0
Thematic Area 2: Delivering Economic Regeneration and Transformation												
2.1	A smarter Europe by promoting innovation and smart economic transformation	0	++	+	0	0	+	+	+	0	0	+
2.1.1	Enhancing research and innovation capacities and the uptake of advanced technologies	0	++	+	0	0	+	+	+	0	0	+
2.1.3	Enhancing growth and competitiveness of SMEs including by productive investments and job creation in SMEs.	+/-	++	+	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-
2.1.4	Developing skills for smart specialism, industrial transition and entrepreneurship.	0	++	+	0	0	+	+	+	0	0	+
2.3.3	Developing and enhancing sustainable climate resistant, intelligent and intermodal national, regional and local mobility, including improved access to TEN-T and cross border mobility.	0	++	+	0	0	+	+	+	0	0	0
2.5	A Europe closer to its citizens by fostering the sustainable and integrated development of urban, rural and coastal areas and local initiatives	0	++	+	0	0	0	0	+	0	0	0
Thematic Area 3: Empowering and Investing in Young People												
3.4.7	Peace and Reconciliation	0	++	++	0	0	0	0	0	0	0	0
Thematic Area 4: Healthy and Inclusive Communities												
4.4.3	Increasing the socio-economic integration of marginalised communities, migrants and disadvantaged groups through integration measures including housing and social services	0	++	++	0	0	0	0	0	0	0	0
4.4.4	Ensuring equal access to health care and fostering resilience of health systems, including primary care and promoting the transition from institutional to family and community based care.	0	++	++	0	0	0	0	0	0	0	0
4.6	Interreg Specific Objective 1: A better cooperation governance	0	0	0	0	0	0	0	0	0	0	0
Thematic Area 5: Supporting Sustainable and Better Connected Futures												
5.2.2	Promoting renewable energy	+/-	+/-	+/-	+/-	+/-	+	+	+	+/-	+/-	5
5.2.4	Promoting climate change adaptation, risk prevention and disaster resilience.	0	+	+	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-
5.2.5	Promoting sustainable water management	++	+	+	+	++	+	++	+	0	+	++
5.2.7	Enhancing nature protection and biodiversity, green infrastructure in particular in the urban environment and reducing pollution	++	++	++	+	+	+	+	+	+	+	++
Thematic Area 6: Building and Embedding Partnership and Collaboration												
6.6.1	A better cooperation governance	0	0	0	0	0	0	0	0	0	0	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

PEACE PLUS: Alternative 4 High Level Matrix		SEA OBJECTIVES										
		1	2	3	4	5	6	7	8	9	10	11
Policy Objectives and Specific Objectives		Ecology & Nature Conservation	Population & Socio-economics	Health & Quality of Life	Soil & Land Use	Water	Air Quality	Climate	Material Assets	Historic Environment	Landscape	Natural Capital
Policy Objective 1: A smarter Europe by promoting innovation and smart economic transformation												
1.2	Reaping the benefits of digitisation for citizens, companies and governments.	0	+	+	0	0	0	0	0	0	0	0
Policy Objective 2: A greener, lower carbon Europe by promoting clean and fair energy transition, green and blue investment, the circular economy, climate adaptation and risk prevention and management												
2.1	Promoting energy efficiency measures and reducing greenhouse gas emissions	0	+	+	0	0	+	++	0	0	0	0
2.3	Developing smart energy systems, grids and storage outside TEN-E	+/-	+	0	0	+/-	+	+	0	+/-	+/-	+/-
2.6	Promoting the transition to a circular economy	+	+	+	+	+	+	+	++	+	+	+
2.8	Promoting multi-modal urban mobility	+/-	+	+	0	+/-	+	+	0	+/-	+/-	+/-
Policy Objective 3: A more connected Europe												
3.1	Enhanced digital connectivity	0	+	+	0	0	0	0	0	0	0	0
3.2	Developing a sustainable, climate resilient, intelligent, secure and intermodal TEN-T	+/-	+	+	0	+/-	+	+	0	+/-	+/-	+/-
Policy Objective 4: A more social Europe implementing the European Pillar of Social Rights												
4.1	Enhancing the effectiveness of labour markets and access to quality employment through developing social innovation and infrastructure.	0	++	++	0	0	0	0	0	0	0	0
4.2	Improving equal access to inclusive and quality services in education, training and lifelong learning through developing accessible infrastructure, including fostering resilience for distance and on-line education and training.	0	++	++	0	0	0	0	0	0	0	0
4.5	Enhancing the role of culture and tourism in economic development, social inclusion and social innovation.	+/-	+	+	0	+/-	+/-	+/-	0	+/-	+/-	+/-
4.6	As Article 14(3) of the ETC Regs: i) enhancing the effective of labour markets and improving access to quality employment across borders, ii) improving access to and the quality of education, training and lifelong learning across borders with a view to increasing the educational attainment and skills levels thereof as to be recognised across borders, iii)enhancing the equal and timely access to quality, sustainable and affordable healthcare across borders, iv) improving accessibility, effectiveness and resilience of healthcare systems and long-term care services across borders, v) promoting social inclusion and tackling poverty, including by enhancing equal opportunities and combating discrimination across borders.	0	++	++	0	0	0	0	0	0	0	0
Policy Objective 5: A Europe closer to its citizens by fostering the sustainable and integrated development of urban, rural and coastal areas and local initiatives.												
Policy Objective 6: Intereg specific objective 1: A better cooperation governance.												
Policy Objective 7: Intereg specific objective 1: A safer and more secure Europe.												

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

PEACE PLUS: Alternative 6		SEA OBJECTIVES										
High Level Matrix		1	2	3	4	5	6	7	8	9	10	11
Policy Objectives and Specific Objectives		Ecology & Nature Conservation	Population & Socio-economics	Health & Quality of Life	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.												
1.5	Enhancing Digital Connectivity	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 change mitigation and adaptation and risk prevention and management and sustainable urban mobility												
2.1	Promoting energy efficiency and reducing green-house gas emissions	+/-	+	+/-	+/-	+/-	+	+	+	+/-	+/-	+/-
2.3	Developing smart energy systems, grids and storage outside TEN-E	+/-	+	0	0	+/-	+	+	+	0	+/-	+/-
2.6	Promoting the transition to a circular economy and resource efficient economy	+	+	+	+	+	+	+	++	+	+	+
2.8	Promoting sustainable multimodal urban mobility, as part of transition to a net zero carbon economy	+/-	+	+	0	+/-	+	+	0	+/-	+/-	+/-
Policy Objective 3: A More Connected Europe by enhancing mobility												
3.1	Developing and enhancing sustainable, climate resilient, intelligent and intermodal national, regional and local mobility, including improved access to TEN-T and cross-border mobility	+/-	+	+	+/-	+/-	+/-	+/-	+	+/-	+/-	+/-
Policy Objective 4: A more social and inclusive Europe implementing the European Pillar of Social Rights												
4.1	Enhancing the effectiveness and inclusiveness of labour markets and access to quality employment through developing social infrastructure and promoting social economy.	0	++	++	0	0	0	0	0	0	0	0
4.2	Improving equal access to inclusive and quality services in education, training and lifelong learning through developing accessible infrastructure, including by fostering resilience for distance and on-line education and training.	0	++	++	0	0	0	0	0	0	0	0
4.3	Promoting the socioeconomic inclusion of marginalised communities, low income households and disadvantaged groups including people with special needs, through integrated actions including housing and social services. Promoting socio-economic integration of third country nationals, including migrants through integrated actions, including housing and social services.	0	++	+	0	0	0	0	0	0	0	0
4.5	Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation.	+/-	+	+	0	+/-	+/-	+/-	0	+/-	+/-	+/-
4.6	ESF Plus Specific Objectives, as per Article 14(3) in the ETC regulations. - Improving access to employment and activation measures of all jobseekers, in particular youth, especially through the implementation of the Youth Guarantee, long-term unemployed and disadvantaged groups on the labour market, and of inactive people, promoting self-employment and the social economy - modernising labour market institutions and services to assess and anticipate skills needs and ensure timely and tailor-made assistance and support to labour market matching, transitions and mobility - promoting a gender-balanced labour market participation, equal working conditions, and a better work/life balance including through access to affordable childcare, and care for dependent persons - promoting the adaptation of workers, enterprises and entrepreneurs to change, active and healthy ageing and a healthy and well-adapted working environment that addresses health risks - improving the quality, inclusiveness, effectiveness and labour market relevance of education and training systems including through validation of non-formal and informal learning, to support acquisition of key competences including entrepreneurial and digital skills, and by promoting the introduction of dual-training systems and apprenticeship - promoting equal access to and completion of, quality and inclusive education and training, in particular for disadvantaged groups, from early childhood education and care through general and vocational education and training, and to tertiary level, as well as adult education and learning, including facilitating learning mobility for all and accessibility for persons with disabilities - promoting lifelong learning, notably flexible upskilling and reskilling opportunities for all taking into account entrepreneurial and digital skills, better anticipating change and new skills requirements based on labour market needs, facilitating career transitions and promoting professional mobility - fostering active inclusion with a view to promoting equal opportunities, non-discrimination and active participation, and improving employability, in particular for disadvantaged groups; - promoting socio-economic integration of third country nationals, including migrants; - promoting the socio-economic integration of marginalised communities such as Roma; - enhancing the equal and timely access to quality, sustainable and affordable services, including services that promote the access to housing and person-centred care including healthcare ; modernising social protection systems, including promoting access to social protection, with a particular focus on children and disadvantaged groups; improving accessibility including for persons with disabilities, effectiveness and resilience of healthcare systems and long-term care services - promoting social integration of people at risk of poverty or social exclusion, including the most deprived	0	++	++	0	0	0	0	0	0	0	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