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ANNEX A

Integrated Sustainability Appraisal Report

In Partnership with:

Antrim and Newtownabbey Borough Council
Ards and North Down Borough Council
Belfast City Council
Lisburn & Castlereagh City Council
Mid & East Antrim Borough Council

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Abbreviations

ANBC	Antrim and Newtownabbey Borough Council
ANDBC	Ards and North Down Borough Council
AONB	Area of Outstanding Natural Beauty – now known as National Landscape
ASSIs	Areas of Special Scientific Interest
AQMA	Air Quality Management Area
BCC	Belfast City Council
BMTP	Belfast Metropolitan Transport Plan
BME	Black and Minority Ethnic
BOA	Biodiversity Opportunity Area
CCC	Committee for Climate Change
CH_4	Methane
CO_2	Carbon Dioxide
cSAC	Candidate Special Areas of Conservation
DAERA	Department of Agriculture, Environment and Rural Affairs of Northern Ireland
DEFRA	Department for Environment Food and Rural Affairs
DfI	Department for Infrastructure
DfT	Department for Transport
EIA	Environmental Impact Assessment
EqIA	Equality Impact Assessment
ER	Environmental Report
ETP	Eastern Transport Plan
EU	European Union
EV	Electric Vehicles
FRMP	Flood Risk Management Plan
GIRES	Gender Identity Research and Education Society
GVA	Gross Value Added
HEAT	Health Equity Assessment Tool
HIA	Health Impact Assessment
HRA	Habitats Regulation Assessment
HSCT	Health & Social Care Trusts

ISA	Integrated Sustainability Appraisal
ktoe	Thousand tonnes of oil equivalent
LCA	Landscape Character Areas
LCCC	Lisburn and Castlereagh City Council
LDP	Local Development Plan
LGB	Lesbian, Gay or Bisexual
LGD	Local Government District
LPP	Local Policies Plan
LZEVs	Low or Zero Emission Vehicles
MaaS	Mobility as a Service
MEABC	Mid and East Antrim Borough Council
N_2O	Nitrous oxide
NFM	Natural Flood Management
NGO	Non-governmental organisation
NI	Northern Ireland
NILT	Northern Ireland Life and Times Survey
NIMDM17	Northern Ireland Multiple Deprivation Measures 2017
NMU	Non-Motorised Users
NO_2	Nitrogen Dioxide
NWTP	North West Transport Plan
ODPM	Office of the Deputy Prime Minister
ONS	Office for National Statistics
PCGs	Protected Characteristic Groups
PMF	Place and Movement Framework
PM2.5	Particulate Matter 2.5
PM10	Particulate Matter 10
PPPs	Plans, Policies and Programmes
pSPA	Potential Special Protection Areas
pRamsar	proposed Ramsar sites
PRoW	Public Right of Way
RBD	River Basin Districts
RDS	Regional Development Strategy 2035
RNIA	Rural Needs Impact Assessment
RSPB	Royal Society for the Protection of Birds
RSTNTP	Regional Strategic Transport Network Transport Plan

SA	Sustainability Appraisal
SAC	Special Areas of Conservation
SEA	Strategic Environmental Assessment
SOAs	Super Output Areas
SPA	Special Protection Areas
SRTP	Sub-Regional Transport
SuDS	Sustainable Drainage Systems
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organisation
WFD	Water Framework Directive

Non-Technical Summary

This section will be updated at the completion of the document. This will be completed once all Council areas contained within the Eastern Transport Plan area have been considered. This process is currently being undertaken in line with each Council area's Local Development Plan process.

1. Introduction

1.1 Purpose of this document

This is the Integrated Sustainability Appraisal (ISA) Report of the Eastern Transport Plan (ETP), which has been prepared by AtkinsRéalis Limited on behalf of Department for Infrastructure ('DfI') in respect of fulfilling the requirements of Sustainability Appraisal / Strategic Environmental Assessment (SA/SEA), Health Impact Assessment (HIA) and Equality Impact Assessment (EqIA). A Rural Needs Impact Assessment (RNIA) will also be undertaken and will be used to help inform the EqIA. In addition, Habitats Regulation Assessment (HRA) has been undertaken as a parallel process to the ISA and is reported separately. The ISA Report identifies the likely sustainability effects of implementing the ETP and reports on the process of developing the ETP from a sustainability perspective. An overview of the ETP is presented in the following section.

1.2 The background and need for ETP

The Eastern Transport Plan (ETP) sets out the DfI's priorities for changes to the transport network to 2035 across the following five councils, Figure 3-1 and Appendix D:

- Antrim and Newtownabbey Borough Council (ANBC);
- Ards and North Down Borough Council (ANDBC);
- Belfast City Council (BCC);
- Lisburn and Castlereagh City Council (LCCC); and
- Mid and East Antrim Borough Council (MEABC).

The ETP takes forward the strategic direction of the Transport Strategy 2035[1], presenting a long-term vision for change across the region's transport network as well as detailing specific schemes and interventions to be delivered by 2035 (subject to detailed economic appraisal, funding availability and adherence to statutory processes).

The ETP is part of a wider suite of Transport Plans being brought forward by DfI which include:

- Regional Strategic Transport Network Transport Plan (RSTNTP)[2]: dealing with the principal roads and public transport networks;
- North West Transport Plan (NWTP)[3]: dealing with the council areas of Derry City and Strabane District Council; and
- Five separate Sub-Regional Transport Plans (SRTP)[4]: dealing with the council areas of Armagh Banbridge and Craigavon, Causeway Coast and Glens, Fermanagh and Omagh, Mid Ulster and Newry Mourne and Down.

The Transport Plans are being prepared by DfI in parallel and cooperation with the Local Development Plans (LDPs) prepared by the councils. The ETP supports the preparation of Local Policy Plans (LPP) for each of the five council areas. The integration of land-use and transport planning processes provides a unique opportunity to combine the shared objectives of central and local government.

[1] https://www.infrastructure-ni.gov.uk/articles/transport-strategy
[2] https://www.infrastructure-ni.gov.uk/articles/regional-strategic-transport-network-transport-plan
[3] North West Transport Plan 2035 | Department for Infrastructure
[4] Transport plans | Department for Infrastructure

1.2.1 Belfast Metropolitan Transport Plan (BMTP)

Since the submission of the Belfast Metropolitan Transport Plan (BMTP) SEA Screening Report a Plan name change has come into effect. The name change is in response to stakeholder feedback and to ensure that the wide geographic scope of the Plan is adequately reflected in the name. The name change has no impact on the scope of the Plan.

The ISA Scoping Report, this ISA Report, and all subsequent submissions, will refer to the Plan as the Eastern Transport Plan (ETP).

1.2.2 ETP Scope and Phasing

Due to the varied delivery timescales for the five LPPs, ETP 2035 has been developed and published in iterative phases to align with the publication of each council's LPP. With each iterative publication, a new chapter is added to the ETP to cover the respective council area, as outlined below. The ISA will be updated in a similar fashion, alongside the further development of the ETP.

Table 1-1 - ETP Phasing and ISA

Phase	ETP Chapter	ISA Chapter
Belfast City Centre Transport Plan	Chapter 3	Chapter 12.2
Metropolitan Area Transport Plan	Chapter 4	Chapter 12.3
Antrim and Newtownabbey Borough Council Transport Plan	To be added later in 2026	Chapter 12.4 - To be added later in 2026/27
Ards and North Down Borough Council Transport Plan	To be added later in 2026	Chapter 12.5 - To be added later in 2026/27
Lisburn and Castlereagh City Council Transport Plan	To be added later in 2026	Chapter 12.6 - To be added later in 2026/27
Mid and East Antrim Borough Council Transport Plan	To be added later in 2026	Chapter 12.7 - To be added later in 2026/27

1.2.3 ETP Vision, Objectives and Guiding Principles

To ensure that the individual priorities presented in the ETP complement each other and work towards a shared long-term goal, an overarching vision and associated objectives were defined in consultation with stakeholders and the public. The ETP's vision and objectives also take account of the LDP objectives of the five councils.

The ETP vision is to:

'Deliver an integrated and re-balanced transport network in favour of sustainable, efficient modes, which connects communities creating an accessible, inclusive, safe and prosperous economic region by delivery carbon reduction, improving air quality, enhancing the built and natural environment and facilitating healthy and sustainable travel choices over unnecessary private car travel'.

The vision is supported by seven objectives:

1. Reduce travel distances by promoting safe, inclusive and connected neighbourhoods, supported by integrated planning.

2. Deliver a reduction in carbon emissions by increasing accessibility for all to jobs, services and recreation by sustainable travel modes.
3. Promote healthy and inclusive communities by developing safe sustainable travel modes that respect the local built and natural environment.
4. Reduce unnecessary use of the private car by implementing effective demand management measures.
5. Improve air quality and the environment by encouraging the use of sustainable travel modes and vehicles which utilise sustainable fuels.
6. Enhance the resilience and safety of the transport network to support the economy and meet the challenges of climate change.
7. Support the efficient, sustainable movement of goods and people and enhance connectivity to regional networks including access to airports and ports.

When considering a vision for the future transport network it is important to reflect on the dual role that roads and streets often play. They facilitate both the 'movement' of people and goods by various modes of transport, as well as providing 'places' for people to spend time and be active.

The Transport Strategy identifies nine categories of road type (Place and Movement Framework categories (PMF)) against which, a bespoke modal hierarchy has been defined for ETP. The modal hierarchies aim to reflect the varied 'movement' and 'place' needs of each road type in a way that will equitably balance the needs of different transport modes; enhancing the use of sustainable modes without compromising the efficiency and integrity of the wider transport network.

The nine PMF categories have been applied across the ETP transport network to confirm priorities by travel mode and geography. The spatial application of the PMF represents the long-term, aspirational vision for change to the region's transport network. ETP further sets out a number of guiding principles that ensure the modal hierarchy is observed and the relevant modal priorities. The guiding principles, aligning to the PMF categories include those outlined in Figure 1-1.

Figure 1-1 - Place and Movement Framework



2. Approach to the ISA

2.1 Introduction

The Regional Development Strategy[5] (RDS) identifies three sustainable development themes: the economy, society and the environment. These dimensions give rise to the need for transport plans such as ETP to perform a number of roles:

- **Economic role** – ensuring people can connect with a range of facilities and services and how they get to places of work. Creating efficient connections for goods and services including the necessary infrastructure to service economic growth, such as robust electricity and telecoms connections. Contribute to wealth and value-added employment through export driven economic growth.
- **Societal role** – creating sustainable communities and places where people want to live, work and play, now and in the future; that meet the diverse needs of existing and future residents, are sensitive to their environment, and contribute to a high quality of life; and are safe and inclusive, well planned, built and run, and offer equality of opportunity and good services for all; and
- **Environmental role** – contributing to conservation and protection of our built and natural heritage; increasing the contribution that renewable energy can make to the energy mix to reduce reliance on fossil fuels and improve security of supply; promote investment in upgrading the electricity infrastructure, developing the natural gas network and exploring the potential to develop a renewable heat generation and distribution network; and promote ways to make the most efficient use of our infrastructure so that we can move people and freight safely and reliably while also reducing pollution.

These dimensions give rise to the need for transport plans such as ETP to respond to the need for, and achievement of, sustainability. The ISA is aimed at ensuring the early integration of sustainability considerations into the development of ETP. As such it will be an iterative assessment process informing the ETP as it develops, to ensure that potential significant effects arising from ETP are identified, assessed, mitigation proposed and communicated to plan-makers.

It is also a fundamental requirement that the ISA ensures ETP meet all legislative requirements, to address requirements, including:

- Strategic Environmental Assessment (SEA) in accordance with the Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004.
- Habitats Regulation Assessment (HRA) (required by the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (1995/380), as amended by The Conservation of Habitats and Species (Amendment) (Northern Ireland) (EU Exit) Regulations 2019).
- Equality Impact Assessment (EqIA), as required by section 75 (1) of the Northern Ireland Act 1998 and as informed by the Rural Needs Assessment (required under the Rural Needs Act Northern Ireland 2016).
- Health Impact Assessment – while there is no statutory requirement, it is considered good practice and in keeping with promoting healthy and safe communities as per the Regional Development Strategy.

[5] Regional Development Strategy, RDS 2035 'Building a Better Future'

2.2 Strategic Environmental Assessment

Due to the potential for the ETP to lead to schemes which will require an Environmental Impact Assessment, it is a statutory requirement that SEA is undertaken under the European Directive 2001/42/EC 'on the assessment of certain plans and programmes on the environment' (the 'SEA Directive'). The SEA Directive came into force in Northern Ireland on 20 July 2004 through the Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004 (the “SEA Regulations). The Directive applies to a variety of plans and programmes including transport plans, and notable modifications to them.

The overarching objective of the SEA Directive is:

"*To provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans… with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans… which are likely to have significant effects on the environment*." (Article 1)

The main requirements introduced by the SEA Regulations are that:

- The findings of the SEA are published in an Environmental Report (ER), which sets out the significant effects of the draft plan.
- Consultation is undertaken on the plan and the ER.
- The results of consultation are taken into account in decision-making relating to the adoption of the plan.
- Information on how the results of the SEA have been taken into account is made available to the public.

Although the requirements to carry out SA and SEA are distinct, the Ministry of Housing, Communities and Local Government proposed that both can be satisfied through a single appraisal process. It has produced guidance[6] (see Chapter 4 Methodology) to ensure SAs meet the requirements of the SEA Directive whilst widening the Directive's approach to include economic and social issues as well as environmental ones. In this ISA process, the ISA Report incorporates the SEA requirement for an Environmental Report.

2.3 Health Impact Assessment

While there is no statutory requirement to undertake an HIA in relation to the ETP, it was recognised that it provides a useful way to support efforts to improve health of individuals and communities and help address health inequalities. In short, it was recognised that the ETP policies and proposals have the potential to impact on factors influencing the health of communities and individuals such as noise and air quality, access to key services and facilities, as well as the design of transport infrastructure. Undertaking an HIA ensured that potential impacts of the ETP on health and health inequalities have been considered.

The HIA is being undertaken using guidelines as set out by the Public Health Observatories[7]. It has also been informed by approaches such as Health Equity Assessment Tool (HEAT) and evidence reviews completed by the Department for Transport (DfT). Plans and programmes and baseline data relevant to health are presented in Appendices B to D of this ISA Report and specific HIA Objectives are outlined in the ISA Framework (Section 5).

[6] Strategic environmental assessment and sustainability appraisal - GOV.UK

[7] http://www.apho.org.uk/default.aspx?RID=40141

2.4 Equality Impact Assessment

Similar to HIA, in order to demonstrate how potential impacts of ETP on equality have been considered and to fulfil the requirements of equalities legislation, the Northern Ireland Act 1998, an EqIA has also been undertaken as a fully integrated component of the ISA and is reported as such in this ISA Report. The EqIA is aimed at ensuring that a scheme, strategy or policy does not discriminate against any individual or community and where possible promotes equality for all.

The EqIA process will have due regard to guidance on implementing Section 75 Categories for public authorities provided by the Equalities Commission for Northern Ireland and the DfI Equality Scheme.

EqIA in Northern Ireland considers nine equality categories ('Section 75 Categories'). The EqIA will have due regard to the need to promote equality of opportunity between specific identified individuals and groups, namely between persons of different:

- Religious Belief;
- Political Opinion;
- Racial Group;
- Age;
- Marital Status;
- Sexual Orientation;

and between

- Men and women generally (Gender);
- Persons with a disability and persons without; and
- Persons with dependants and persons without.

In addition, consideration is made of the concept of 'dual discrimination', where someone may be discriminated against or treated unfairly based on a combination of two or more of the protected characteristics. It is also the case that the issue of 'low income' and the implications of this will be addressed at full assessment stage.

2.5 Rural Needs Impact Assessment

In addition to the above assessments this appraisal will also look to 'rural proof' the ETP. The term 'rural' in Northern Ireland is defined as 'settlements with populations of less than 5,000 together with the open countryside'[8]. Settlements are classified into a number of bands, as set out in Table 2-1, with bands A-E classified as urban, and bands F-H classified as rural. This definition is to be used in respect of the Plan.

Table 2-1 – Settlement Development Limit Classification

Classification Population	Classification Population
Band A - Belfast 280,211 (2011 census)	Band A - Belfast 280,211 (2011 census)
Band B - Derry City 83,125 (2011 census)	Band B - Derry City 83,125 (2011 census)
Band C - Large Town >18,000	Band C - Large Town >18,000
Band D - Medium Town 10,000 - 17,999	Band D - Medium Town 10,000 - 17,999
Band E - Small Town 5,000 - 9,999	Band E - Small Town 5,000 - 9,999
Default Urban-Rural Split	
Band F - Intermediate Settlements 2,500 - 4,999	Band F - Intermediate Settlements 2,500 - 4,999
Band G - Village 1,000 - 2,499	Band G - Village 1,000 - 2,499
Band H - Open Countryside <1,000 and open countryside	Band H - Open Countryside <1,000 and open countryside

Source: Adapted from Table 2 of the Statistical Classification and Delineation of Settlements[9]

Around 670,000 people in Northern Ireland live in a rural area representing approximately 37% of the population (2011 census)[10]. Most strategies and policies developed and implemented across government have a rural dimension as it is recognised that they can have a different impact in rural areas than urban areas due to issues relating to, for example, geographical isolation and lower population densities. It is recognised that as a result of rural circumstances people in rural areas may have different needs and therefore a policy or public service that works well in urban areas may not be as effective in rural areas.

The Rural Needs Act (Northern Ireland) 2016 provides a statutory duty on public authorities to have due regard to rural needs when developing, adopting, implementing or revising policies, strategies and plans, and when designing and delivering public services. A Rural Needs Impact Assessment (RNIA) is the process recommended to assist public authorities in fulfilling the requirement to consider rural needs.

There are six steps involved in completing a Rural Needs Impact Assessment. The recommended staged approach to rural needs, as set out in Table 2-2, will be used to inform the transport plan preparation and the SA.

Table 2-2 – Rural Need Impact Assessment Stages

[8] Guide to the Rural Needs Act NI (daera-ni.gov.uk)

[9] Review of the Statistical Classification and Delineation of Settlements, NISRA, March 2015

[10] A Guide to the Rural Needs Act (NI) 2016 for Public Authorities (Revised) April 2018, DAERA

Stage	Description
Stage 1 – Defining the activity (Screening)	Public authorities should be clear on the nature of the activity which they are undertaking and ensure that it is one which falls within the scope of the Act. The Act only applies to the development, adoption, implementation and revising of policies, strategies and plans and to the design and delivery of public services. If the activity that a public authority is engaged in does not fall within the scope of section 1(1) of the Act, then no Rural Needs Impact Assessment is required to be carried out.
Stage 2 – Understanding the Impact	The second stage of a Rural Needs Impact Assessment is understanding the impact that the policy, strategy, plan or public service is likely to have on people in rural areas. In considering the impact a public authority should consider both the direct and indirect impacts and both the positive and negative impacts. Note that, where a policy, strategy, plan or public service is an area-based one and is intended to have the same impact across a region (such as the ETP area), consideration should be given to whether there are potential local circumstances which will result in a different outcome.
Stage 3 – Identifying Rural Needs	The third stage of a Rural Needs Impact Assessment is to identify the social and economic needs of people in rural areas that are relevant to the policy, strategy, plan or public service. In seeking to identify rural needs public authorities should consider to what extent the policy, strategy, plan or public service will meet the social and economic needs of people in rural areas and whether the outcomes delivered for people in rural areas will be similar to the outcomes delivered for people in urban areas.
Stage 4 – Considering Rural Needs	The fourth stage of the Rural Needs Impact Assessment is the consideration of the social and economic needs of people in rural areas as they relate to the policy, strategy, plan or public service. In considering rural needs, it is important to determine any potential barriers to the delivery of a fair and equitable outcome for people in rural areas taking into account the characteristics of rural areas, and to consider how these barriers can be mitigated or overcome. When considering rural needs public authorities should also seek to ensure that a policy, strategy, plan or public service does not indirectly impact on rural areas in ways that are likely to disadvantage people in rural areas compared to people in urban areas.
Stage 5 – Influencing the Outcome	The fifth stage of the Rural Needs Impact Assessment deals with influencing the policy, strategy, plan or public service. In determining how a policy, strategy, plan or public service should take account of rural needs, public authorities should always seek to ensure fair and equitable treatment of people in rural areas and be aware that a 'one size fits all' approach may not be appropriate. Continued monitoring will also be required.
Stage 6 – Documenting and Recording	Public authorities should ensure that all information relevant to the Rural Needs Impact Assessment is documented on the RNIA Template. The amount of detail recorded should be proportionate to the potential impact and relevance of the activity being undertaken. While it is not a specific requirement to consult on the RNIA, this could be done as part of wider SEA consultation.

The approach to the RNIA will ensure that rural needs are considered throughout the preparation of the transport plan and the assessment process. These will be established from defining the baseline and building up a picture of the area in terms rural needs, identifying the key issues, developing the ISA Framework, assessing the ETP 2035 options, preferred options, mitigation and monitoring. The results of the RNIA are fully reported in this ISA report.

The RNIA process will have due regard to A Guide to the Rural Needs Act (Northern Ireland) 2016 for Public Authorities (revised)[11] published by DAERA.

2.6 Reporting and Consultation as part of the ISA process

The key consultation requirements are those set in the SEA Regulations which identify those organisations to act as statutory consultation authorities in the SEA process: in Northern Ireland this is Department of Agriculture, Environment and Rural Affairs (DAERA).

Two consultation periods involving the statutory consultation authorities, and, in the latter period, the public are also set in the SEA Regulations. The consultation periods relate to:

- **Scoping**: The responsible authority is required to send details of the plan or programme to each consultation authority so that they may form a view on the scope, level of detail and appropriate consultation period of the Environmental Report. The consultation authorities are required to give their views within five weeks. This consultation period completed on the 22nd July 2024.
- **The Environmental Report**: The responsible authority is required to invite the consultation authorities and the public to express their opinions on the Environmental Report and the plan or programme to which it relates.

Listed below are the key stakeholders that were consulted on the Scoping Report. We have carefully considered each representation and endeavoured to address these appropriately to develop a stronger, more robust methodology to assess ETP as a result. In total we received 54 responses from six different statutory and non-Statutory departments including:

- **Statutory:**
  - DAERA Northern Ireland Environment Agency (NIEA)
  - DAERA Natural Environment Division (NED)
  - DAERA Water Management Unit (WMU)
  - DEARA Air Quality and Biodiversity Unit
  - DAERA Marine Planning Team
  - DAERA Marine Conservation Team
- **Non-Statutory**:
  - DfC Historic Environment Division (HED)

Consultation responses were supportive of the ISA framework, welcoming consideration of all of the ISA topic objectives. A number of recommendations were however provided to help strengthen the wording or request consideration of additional decision aid questions to ensure the plan appropriately addresses all policy requirements. Consultees recommended the review of a number of plans and policies; and consideration of additional baseline data to further inform issues and opportunities for the plan, for example a review of coastal change, aligning to coastal processes in the draft Marine Plan for Northern Ireland, or the requirement to consider impacts on Regional Seascape Character Areas (RSCAs). The Scoping Report comments received, together with how and where these comments have been addressed in the preparation of this SEA Report, are set out in Appendix A to this report.

[11] A guide to the Rural Needs Act (Northern Ireland) 2016 for Public Authorities (revised), March 2018 (A guide to the Rural Needs Act (Northern Ireland) 2016 for Public Authorities (revised) | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk))

Key reporting requirements are those set by the SEA Directive and SEA Regulations:

'An Environmental Report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated.'

As already indicated, the SEA Report has been integrated in this ISA Report. Table 2-3 sets out the way the specific SEA requirements have been met in this report

Table 2-3 - Schedule of SEA Requirements

	Information to be included in the Environmental Report under the SEA Regulations (Regulation 12 and Schedule 2)	**Where covered in the ISA Report**
1.	An outline of the contents, main objectives of the plan, and of its relationship with other relevant plans and programmes	Chapter 1 and 5
2.	The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan;	Chapter 6 and 8
3.	The environmental characteristics of areas likely to be significantly affected	Chapter 6 and Appendix C & D
4.	Any existing environmental problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC;	Chapter 6 and Appendix C & D
5.	The environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation	Chapter 5 and 6 and Appendix B
6.	The likely significant effects on the environment, including short, medium and long-term effects, permanent and temporary effects, positive and negative effects, and secondary, cumulative and synergistic effects, 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; the interrelationship between the above factors	Chapters 8 to 11
7.	The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan	Chapter 12
8.	An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information	Chapter 8
9.	A description of measures envisaged concerning monitoring in accordance with Regulation 17	Chapter 14
10.	A non-technical summary of the information provided under paragraphs 1 to 9	Non-Technical Summary

The ISA Report is thus an important consultation document and likely to be of interest to a wide variety of readers including decision makers, other plan/programme practitioners, statutory consultees, NGOs and members of the public. It accompanies the draft ETP on public consultation.

2.7 Habitat Regulation Assessment

Habitats Regulation Assessment (HRA) is required by the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended by EU Exit Regulations 2019) for all plans and projects which may have likely significant effects on a European site and are not directly connected with or necessary to the management of the European site. ETP itself is not directly connected with, or necessary to, the nature conservation management of any European sites.

European sites include Special Areas of Conservation (SAC), Special Protection Areas (SPA) and listed Wetlands of International Importance (Ramsar sites). HRA is also required, as a matter of UK Government policy, for potential SPAs (pSPA), candidate SACs (cSAC) and proposed Ramsar sites (pRamsar) for the purposes of considering plans and projects, which may affect them. Hereafter, all of the above designated nature conservation sites are referred to as 'international sites'.

The stages of the HRA process are:

- Stage 1 - Screening: To assess whether a plan or project either alone or in combination with other plans and projects is likely to have a significant effect on a European Site.
- Stage 2 - Appropriate Assessment: To determine whether, in view of a European Site's conservation objectives, the project or plan (either alone or in combination with other projects and plans) would have an adverse effect (or risk of this) on the integrity of the site with respect to the conservation objectives. If adverse impacts are anticipated, potential mitigation measures to alleviate impacts should be proposed and assessed.
- Stage 3 - Derogations (allow exceptions): Where a project or plan is assessed as having an adverse residual impact (or risk of this) on the integrity of a European Site, it may qualify for a derogation. Three legal tests must be applied in the following order:
    1. There are no feasible alternative solutions that would be less damaging or avoid damage to the site.
    2. The proposal needs to be carried out for imperative reasons of overriding public interest.
    3. The necessary compensatory measures can be secured.

The following selection criteria, based on the geographic extent of any impacts which could arise as a result of the ETP and as explained below, have been used to determine what European Sites to consider in the HRA screening assessment:

- All European Sites within 2 km of the Proposed Scheme, or functionally linked land (see below);
- All European Sites up to 30 km from the ETP where bats are a qualifying interest feature;
- All European Sites up to 20 km from the ETP where birds are a qualifying interest feature (see below);
- All European Sites upstream or downstream of watercourses either within, adjoining or crossed by the Proposed Scheme; and
- All European Sites which have a potential hydrological or hydrogeological linkage to a European Site containing a groundwater dependent terrestrial ecosystem (GWDTE).

Following consultation with DAERA, the following ranges have also been used where Marine Protection Areas (MPAs) have marine mammals as a site selection feature when screening for the species listed below:

- all SACs within 100 km of the ETP area should be screened for grey seals (Halichoerus grypus);
- all SACs within 50 km of the ETP area should be screened for harbour seals (Phoca vitulina); and
- all SACs within 100 km of the ETP area should be screened for harbour porpoise (Phocoena phocoena).

All the international sites within the ETP area and up to 30km from its boundaries have been identified and presented as Figures in Appendix C.

Within the Plan area, the following SACs, SPAs and Ramsar sites have been identified:

SPA

- Belfast Lough;
- Belfast Lough Open Water;
- Larne Lough;
- Lough Neagh and Lough Beg;
- Strangford Lough;
- Outer Ards; and
- Antrim Hills.

SAC

- Main Valley Bogs;
- Garron Plateau;
- Rea's Wood and Farr's Bay;
- Strangford Lough;
- Aughnadarragh Lough; and
- North Channel.

Ramsar

- Belfast Lough;
- Lough Neagh and Lough Beg;
- Outer Ards;
- Strangford Lough;
- Larne Lough; and
- Garron Plateau.

Within 30km of the boundary to the Plan area, the following sites SPA, Ramsar and SAC sites have been identified:

SPA (within 30km of Plan area)

- Sheep Island;
- Rathlin Island;
- Killough Bay; and
- Copeland Islands.

Ramsar sites (within 30km of Plan area)

- Garry Bog;
- Ballynahone Bog;
- Turmennan; and
- Killough Bay.

SAC (within 30km of Plan area)

- Rathlin Island;
- North Antrim Coast;
- Bann Estuary;
- Breen Wood;
- Garry Bog;
- Wolf Island Bog;
- Banagher Glen;
- Carn / Glenshane Pass;
- Ballynahone Bog;
- Teal Lough;
- Montiaghs Moss;
- Peatlands Park;
- Turmennan;
- Hollymount;
- Leacle Fens;
- Derryleckagh;
- Murlough;
- Eastern Mournes;
- Ballykilbeg;
- Dead Island Bog;
- Curran Bog;
- River Roe and Tributaries;
- Red Bay;
- Skerries and Causeway; and
- The Maidens.

As noted, HRA is a parallel and separate process to ISA and informs the ISA regarding effects on international sites. The HRA of the ETP has been undertaken separately from the ISA and the key output is the HRA Report. The results of the HRA have been used to inform the ISA.

3. Scope of the ISA

3.1 Geographical and Temporal Scope

The Eastern Transport Plan (ETP) sets out DfI's priorities for changes to the transport network to 2035 across the following five councils:

- Antrim and Newtownabbey Borough Council (ANBC);
- Ards and North Down Borough Council (ANDBC);
- Belfast City Council (BCC);
- Lisburn and Castlereagh City Council (LCCC); and
- Mid and East Antrim Borough Council (MEABC).

This area encompasses the ETP area – see Figure 3-1

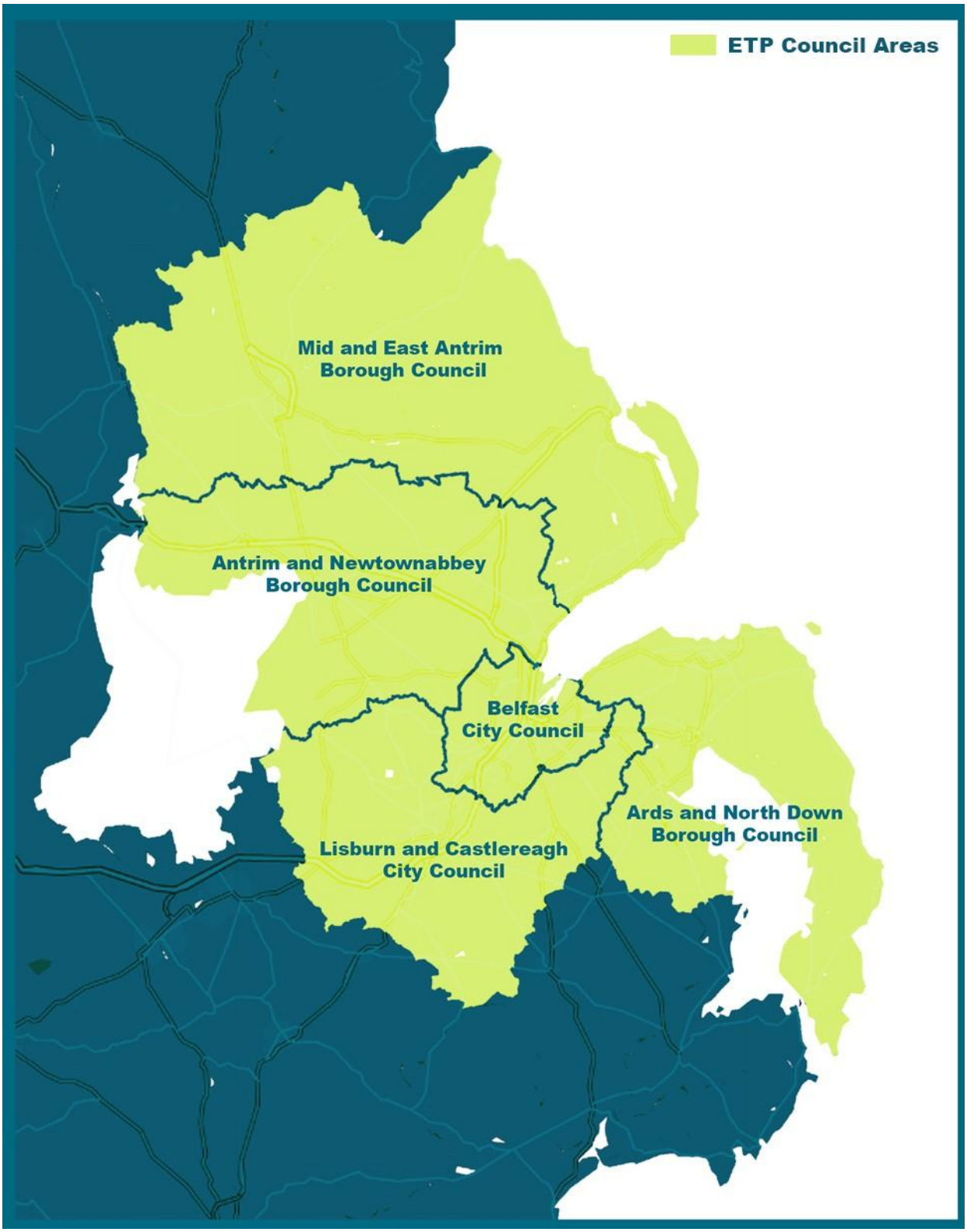
The ETP area covers a series of distinct communities in both urban and rural areas. The area is multi-centred and based on the boundary of the above five council areas. The ETP area has an estimated population of over 900,000 people, with Belfast City Council having the largest population and Mid and East Antrim the smallest. The council areas within the ETP area all have a lower percentage of people living in a household whose equivalised income is below 60% of the NI median than the NI average. Additionally, the majority of these areas are considered significantly better than Northern Ireland in terms of overcrowded housing, with the exception of Belfast.

It is also important to recognise that the implementation of the ETP may have effects outside the immediate boundary of the ETP area. In this regard, the regions immediately adjacent to the ETP area will also be of focus of the ISA, both terrestrially and within the adjacent Northern Ireland marine environment. In addition to the five council areas listed above, there are potential implications for areas such as rural areas on the periphery of the ETP area and the following council areas bordering the ETP area:

- Causeway Coast & Glens Borough Council;
- Mid Ulster District Council;
- Armagh City, Banbridge & Craigavon Borough Council; and
- Newry, Mourne & Down District Council.

The temporal scope of the plan aligns with the LDP process up until 2035.

Figure 3-1 – ETP Area Council Boundaries



3.2 Technical Scope

The ISA has a very wide remit and considers the following topics associated with the various assessment processes it covers.

Strategic Environmental Assessment (SEA)

The SEA Directive and the SEA regulations require that the likely significant effects on the environment are assessed, considering the following factors and interrelationship between them:

- Biodiversity.
- Population.
- Human health (covering noise issues among other effects on local communities and public health).
- Fauna and flora.
- Soil.
- Water.
- Air.
- Noise.
- Climatic factors.
- Material assets (covering infrastructure, waste and other assets).
- Cultural heritage including architectural and archaeological heritage.
- Landscape.

ISA guidance requires the consideration of socio-economic factors alongside the environmental factors identified above. For the assessment of ETP, this includes Health Impact Assessment (HIA), Equality Impact Assessment (EqIA) and a Rural Needs Impact Assessment (RNIA).

Health Impact Assessment (HIA)

Guidance from the Institute of Public Health[12] recommends that the assessment of transport plans should consider the following topics:

- **Air Quality and Pollution**
  - Impact of vehicle emissions on respiratory and cardiovascular health.
  - Exposure differences between urban and rural populations.
- **Physical Activity**
  - Opportunities for walking, cycling, and active travel.
  - Infrastructure that encourages or discourages movement.
- **Access to Services**
  - How transport affects access to healthcare, education, employment, and social services.
  - Equity of access for rural, elderly, disabled, and low-income groups.
- **Road Safety and Injury Prevention**
  - Risk of accidents for pedestrians, cyclists, and drivers.
  - Safety measures like crossings, lighting, and speed limits.
- **Noise Pollution**
  - Effects of traffic noise on mental health, sleep, and stress levels.
- **Mental Wellbeing and Social Inclusion**
  - Impact of transport on social connectivity and isolation.

[12] Health Impact Assessment | Institute of Public Health / Making Life Better - A Whole System Framework for Public Health 2013-2023

    - Stress from commuting or lack of transport options.
- **Climate and Environmental Sustainability**
    - Contribution to greenhouse gas emissions.
    - Support for sustainable modes of transport.
- **Health Inequalities**
    - Differential impacts on vulnerable or disadvantaged groups.
    - Measures to reduce health disparities.
- **Community Cohesion**
    - How transport routes and infrastructure affect community interaction and cohesion.
- **Economic Impacts**
    - Influence on employment opportunities and economic participation, especially in deprived areas.

From an HIA perspective, in addition to the wider population as a whole (considered as residents / visitors and employees), there are vulnerable social groups that need special consideration in transport planning with regards to their health. These groups are likely to experience transport-related exclusion and / or be subject to negative externalities of transport and are as follows:

- **Children and adolescents** – who as non-drivers are reliant on others for motorised transport and who suffer the greatest impacts of transport policy on their health, particularly children in low-income families.
- **Vulnerable travellers, including cyclists, pedestrians and commuters** – this would include consideration of those who are more likely not to own a car in some communities and find it harder to travel to shops, employment, healthcare and other services.
- **Older people** – who may feel vulnerable using public transport, who often need to seek health services and who are particularly vulnerable to road crash related injuries. Their continuing independence at home is often dependent upon reliable transport options.
- **Disabled and people with other health problems** – who may not be able to access many forms of transport or need special arrangements to access those. They are more likely to find it difficult to walk and may also be disadvantaged by the cost of transport.
- **Low-income groups** – who are likely to walk further because they cannot afford public transport or to own a car and whose lack of transport options may limit life opportunities. They suffer the most from injuries, noise pollution and air pollution.

An overview of the baseline for the ETP area as a whole, along with the review of relevant Plans and Policies has shown that all of the above groups are present within the ETP area and likely to utilise the transport network.

Equality Impact Assessment (EqIA)

The EqIA process focuses on the consideration of the potential ETP effects on nine protected characteristic groups (PCGs) identified in the Equality Act 2010 that are relevant to the transport agenda:

- Age.
- Disability.
- Gender.
- Gender reassignment.
- Marriage and Civil Partnerships.
- Pregnancy and maternity.
- Race.
- Religion or belief.
- Sexual orientation.

A degree of overlap between the HIA vulnerable social groups and the EqIA protected characteristics has been acknowledged by both HIA and EqIA processes. Consistency between the two assessments has been ensured, where appropriate, particularly in terms of assumptions, analysing techniques and findings.

An overview of the baseline for the ETP area, along with the review of relevant Plans and Policies has shown that all of the above groups are present within the ETP area and likely to utilise the transport network.

Rural Needs Impact Assessment (RNIA)

A Rural Needs Assessment is a statutory requirement in Northern Ireland under the Rural Needs Act (Northern Ireland) 2016. 'Rural needs' are defined in section 6 of the Act as the 'economic and social needs of persons in rural areas'. The Act places a legal duty on public authorities to have due regard to rural needs when developing, adopting, implementing, or revising policies, strategies, and plans, and when designing and delivering public services.

Around 670,000 people in Northern Ireland live in a rural area representing approximately 37% of the population[13]. The assessment will ensure that rural communities are not disadvantaged by policies or services that may be more suited to urban contexts.

Note that the rural needs will be considered further when ETP is developed for the more rural parts of the plan area – at present there is a focus on the City Centre and Metropolitan Area.

[13] Guide to the Rural Needs Act NI

4. ISA Methodology

The ISA has been used as a tool for improving the sustainability performance of ETP. Specifically, this has been achieved by setting sustainability as a goal through out the plan's formulation process.

As has already been stated, the ISA process fully integrates a range of assessment processes: SA/SEA, HIA, EqIA and RNIA. HRA has been undertaken in parallel to the ISA and its results incorporated into the ISA as appropriate. Table 4-1 demonstrates how the integration has been planned and achieved throughout all the preparation stages of the ISA and ETP.

4.1 Assessment Methodology

The methodology adopted in this ISA is broadly based on or informed by published guidance documents:

1. A Practical Guide to the Strategic Environmental Assessment Directive, by the Office of the Deputy Prime Minister (ODPM), the Scottish Executive, the Welsh Assembly Government and the Northern Ireland Department of the Environment (September 2005);
2. Sustainability Appraisal of Regional Spatial Strategies and Local Development Guidance for Regional Planning Bodies and Local Planning Authorities, ODPM (November 2005);
3. Strategic Environmental Assessment and Sustainability Appraisal Planning Practice Guidance (updated December 2020)
4. National Planning Policy Framework, Department for Communities and Local Government (2021);
5. Health Equity Assessment Tool (HEAT), Public Health England (2020);
6. Guidance on Sustainability Appraisal and Strategic Environmental Assessment for the Historic Environment (2021); and
7. Guidance on Natural and Historic Environment evidence bases (2021).

The work undertaken to-date involved the completion of SA/SEA stages A, B and C and associated tasks (see Table 4-1) together with HIA, EqIA, RNIA and HRA (in parallel).

Table 4-1 - ETP preparation activities with the ISA and HRA processes

Transport Planning Stage	Sustainability Appraisal/ Strategic Environmental Assessment		Habitats Regulation Assessment	Health Impact Assessment	Equalities Impact Assessment*
	Stage	**Tasks**	**Tasks**	**Tasks**	**Tasks**
Determining the scope of the ETP clarifying the vision and objectives; specifying the problems or challenges DfI (and the five councils) seek to solve	**A. Setting the context and objectives, establishing the baseline and deciding on the scope**	Review and confirm plans/programmes and strategies at a National, Regional and Local Level		Confirm and identify Health related plans/programmes and strategies (as part of SA/SEA)	Review and confirm plans/programmes and strategies
		Review and confirm Sustainability themes		Review and confirm health-related themes (as part of SA/SEA)	Review and confirm equality-related themes
		Review and update Baseline data and likely future trends	Confirm identification of all international sites within and up to 20km around the ETP area	Gather data relating to health (as part of SA/SEA).	Review and update Baseline evidence
		Review and confirm key sustainability issues – update these if required	Confirm details of all international sites	Review and confirm health specific issues (as part of SA/SEA)	Review and confirm equalities specific issues
		Review objectives and decision-making questions (SA/SEA Framework) – update these if required	Liaise with SA/SEA technical team to ensure SA/SEA Framework covers international sites appropriately	Ensure inclusion of Health specific objectives in SA/SEA Framework	Ensure inclusion of Equalities specific objectives in SA/SEA Framework
		Prepare ISA Scoping Report to consult with relevant consultees – to be agreed with DfI, DAERA (Department for Agriculture Environment and Rural Affairs (DAERA) and SEA team as a minimum)	Input into ISA Scoping Report	Input into ISA Scoping Report	Input into ISA Scoping Report
		Review consultation responses and update scoping information for ISA Report	Review consultation responses as part of SA/SEA for any aspects of note in relation to HRA	Review consultation responses and update scoping information for ISA Report	Review consultation responses and update scoping information for ISA Report
Option Generation for the ETP to resolve identified problems and issues; appraising the options and predicting their effects	**B. Developing, refining and appraising strategic options**	Review and confirm Assessment of Plan objectives against the updated SA/SEA Framework	Review proposals and considerations of likely impacts	Review and confirmation of Plan objectives and options to be undertaken within SA/SEA	Review and confirmation of Plan objectives and options to be undertaken within SA/SEA
		Review and confirm Appraisal of Plan strategic options	Identification and consideration of other plans and projects		
		Review and confirm evaluation / selection of Plan preferred options.			
Selecting preferred options for the ETP and deciding priorities	**C. Assessing the effects of the ETP**	Predict and assess effects of new or revised options taken forward. Confirm findings in relation to previously assessed schemes.	HRA review of proposals in ETP (screening and if required, appropriate assessment)	*Predict and assess effects of new or revised preferred options to be undertaken within SA/SEA.*	*Predict and assess effects of new or revised preferred options to be undertaken within SA/SEA.*
		Review and confirm proposed mitigation measures – if required, new mitigation measures to be developed	Review and confirm and if required, propose mitigation measures	*Review and confirm and if required, propose mitigation measures within SA/SEA*	*Review and confirm and if required, propose mitigation measures within SA/SEA*
		Develop monitoring programme	*Monitoring as part of SA/SEA*	*Monitoring as part of SA/SEA*	*Monitoring as part of SA/SEA*
Production of the draft ETP	**C. Prepare ISA Report**		Prepare HRA Report (separate output)	*HIA fully documented in ISA Report (no separate output but HIA component properly identified)*	*EqIA fully documented in ISA Report (no separate output but EqIA component properly identified)*
Consultation on draft ETP (DfI/Atkins to undertake)	**D. Consulting on ISA Report (DfI/AtkinsRéalis to undertake)**		HRA Report sent to various DAERA departments, including Marine and Fisheries Division, Natural Environment Division and NIEA for agreement on findings (DfI/AtkinsRéalis to undertake)	*HIA Consultation included in ISA Report consultation*	*EqIA Consultation included in ISA Report consultation*
Production of final ETP	***D. Assess significant changes***		*Assess significant changes*	*HIA assessment of significant changes undertaken as part of SA/SEA*	*EqIA assessment of significant changes undertaken as part of SA/SEA*
Adoption of Local Transport Plan	***D. Post Adoption Statement***		*Prepare updated HRA Report*	*Relevant results reported in Post Adoption Statement*	*Relevant results reported in Post Adoption Statement*

**Rural Needs Assessment will be carried out separately but will help inform the EqIA. See Stages of Rural Needs Assessment as outlined below.*

5. SA / SEA

5.1 Stage A - Setting the Context and Establishing the Baseline

5.1.1 Other Relevant Legislation, Plans and Programmes

The ETP will both influence and be influenced by other plans, policies and programmes (PPPs) produced by local and combined authorities, by statutory agencies and other bodies with plan making responsibilities. Legislation is a further driver that sets the framework for the ETP, both directly and indirectly. Relevant legislation, plans and programmes have been identified and considered to inform the preparation of this ISA Report (see Chapter 6).

5.1.2 Baseline information and Key Sustainability Issues

To predict accurately how potential ETP proposals will affect the current baseline, it is first important to understand its current state and then examine the likely evolution of the environment without the implementation of the plan. Baseline information provides a reference point for understanding existing local environmental, economic and social issues, in particular in respect of health and equality, and alternative ways of dealing with them; formulating objectives to address these issues and predicting and monitoring sustainability effects.

Key sustainability issues in general, and those pertaining to health and equality in particular, across the ETP area have been identified as a result of the analysis of the baseline data and the review of other plans and programmes. The identification of these issues helped focus the ISA processes on the aspects that really matter. Implications to ETP development and opportunities for how the ETP could assist in addressing these issues were also identified.

Information on key baseline and sustainability issues is presented in Chapter 7 of this report.

5.1.3 Developing the ISA Framework

A set of ISA Objectives has been developed, against which the policies and proposals in ETP could be assessed.

For each objective, assessment aid questions were set out to form the ISA framework. The assessment aid questions provided a clarification of the intended interpretation of each objective to support direction of change sought through the implementation of ETP. The questions have guided the ETP assessment process.

The ISA Objectives and assessment aid questions were refined through the consultation on the Scoping Report and are presented in Chapter 8 of this report.

5.2 Stage B – Developing alternatives

5.2.1 Testing ETP Objectives against the ISA Objectives

A compatibility assessment of ETP objectives in its initial stages of preparation against the ISA objectives was carried out, as part of the iterative process to assess the sustainability of ETP objectives. This assessment ensured that consideration of the ISA Objectives informed the development and refinement of the ETP Objectives and provided a suitable framework for developing alternatives (see Chapter 10 of this report).

5.2.2 Developing, refining and appraising Strategic Alternatives

Consideration of alternative strategies for ETP is an integral part of the plan development. Strategic alternatives were identified and have been assessed as part of the ISA process.

This task comprised the prediction of changes arising from the ETP's alternative strategies. While carrying out this evaluation, each alternative was considered in the context of whether it would have a likely significant effect in relation to each of the ISA objectives. The results are presented in Chapter 9 of this report.

5.2.3 Assessing the effects of the draft ETP

Assessing the significance of predicted effects is essentially a matter of judgement. There are a number of factors that will determine the significance of an effect, e.g. its scale and permanence and the nature and sensitivity of the receptor. It is very important that judgements of significance are systematically documented, in terms of the particular characteristics of the effect which are deemed to make it significant and whether and what uncertainty and assumptions are associated with the judgement. The assessment of significance also includes information on how the effect may be avoided or its severity reduced.

In the current practice of ISA (influenced by SEA), the broad-brush qualitative prediction and evaluation of effects can be often based on a qualitative seven point scale in easily understood terms. In general, this assessment has adopted the scale shown in Table 5-1 to assess the significance of effects of the schemes and proposals in the ETP.

Table 5-1 - Criteria for assessing significance of effect

Assessment Scale	Assessment Category	Significance of Effect
+++	Major beneficial	Significant
++	Moderate beneficial	
+	Slight beneficial	Not Significant
0	Neutral or no obvious effect	
-	Slight adverse	
--	Moderate adverse	Significant
---	Major adverse	

Moderate and strong beneficial and adverse effects (and combination of this type of effect) have been considered of significance, whereas no effect and slight beneficial and adverse effects (and combination of this type of effect) have been considered non-significant.

Assessments have been undertaken for proposals contained in the Draft ETP. The results are discussed in Chapter 12.

As part of the assessment of the Draft ETP, a number of mitigation measures (recommendations) are set out in Chapter 13. DfI has given careful consideration to these recommendations and the ETP confirms that appropriate mitigations should be addressed during the development of schemes' designs arising from the Plan.

The term mitigation encompasses any approach that is aimed at preventing, reducing or offsetting significant adverse environmental effects that have been identified. A range of measures applying one or more of these approaches has been considered in mitigating any significant adverse effects predicted as a result of implementing the ETP. In addition, measures aimed at enhancing positive effects have also been considered. All such measures are generally referred to as mitigation measures.

However, the emphasis of the assessments has been, in the first instance, on proactive avoidance of adverse effects. Once alternative options or approaches to avoiding an effect have been examined, then, the ways of reducing the scale/importance of that effect are explored and proposed.

Mitigation can take a wide range of forms, including:

- Refining intervention measures in order to improve the likelihood of positive effects and to minimise adverse effects.
- Technical measures (such as setting guidelines) to be applied during the implementation stage.
- Identifying issues to be addressed in project environmental impact assessments for certain projects or types of projects.
- Proposals for changing other plans and programmes.

The assessment also considered cumulative, indirect (secondary) and synergistic effects of the Draft ETP as outlined in the following section.

5.2.4 Secondary and Cumulative Effects Assessment

Annex I of the SEA Directive requires that the assessment of effects include secondary, cumulative and synergistic effects.

Secondary or indirect effects are effects that are not a direct result of the plan but occur away from the original effect or as a result of the complex pathway e.g. a development that changes a water table and thus affects the ecology of a nearby wetland. These effects are not cumulative and have been identified and assessed primarily through the examination of the relationship between various objectives during the Assessment of Effects.

Cumulative effects arise where several proposals individually may or may not have a significant effect, but in-combination have a significant effect due to spatial crowding or temporal overlap between plans, proposals and actions and repeated removal or addition of resources due to proposals and actions. Cumulative effects can be:

- Additive - the simple sum of all the effects.
- Neutralising - where effects counteract each other to reduce the overall effect.
- Synergistic - is the effect of two or more effects acting together which is greater than the simple sum of the effects when acting alone. For instance, a wildlife habitat can become progressively fragmented with limited effects on a particular species until the last fragmentation makes the areas too small to support the species at all.

Many sustainability problems result from cumulative effects. These effects are very hard to deal with on a project by project basis through Environmental Impact Assessment. It is at the strategic level that they are most effectively identified and addressed.

Cumulative effects assessment is a systematic procedure for identifying and evaluating the significance of effects from multiple activities. The analysis of the causes, pathways and consequences of these effects is an essential part of the process.

Cumulative (including additive, neutralising and synergistic) effects have been considered throughout the entire ISA process, as described below:

- Identification of key sustainability (including detailed health and equality) issues as part of the review of relevant strategies, plans and programmes and baseline data analysis.
- Establishing the nature of likely cumulative effects, causes and receptors.
- Identifying key receptors (e.g. specific wildlife habitats) in the process of collecting baseline information and information on how these have changed with time, and how they are likely to change without the implementation of the ETP.
- Identifying receptors that are particularly sensitive, in decline or near to their threshold (where such information is available) or with slow recovery through the analysis of environmental issues and problems.
- The development of ISA objectives and assessment aid questions has been influenced by cumulative effects identified through the process above and ISA objectives that consider cumulative effects have been identified.
- Cumulative effects of ETP proposals have been assessed.

The results are presented in Chapter 14 of this report.

5.2.5 Monitoring the effects of the ETP implementation

Monitoring involves measuring indicators which will enable the establishment of a causal link between the implementation of the plan and the likely significant effect (positive or negative) being monitored. It thus helps to ensure that any adverse effects which arise during implementation, whether or not they were foreseen, can be identified and that action can be taken by DfI, or partner bodies, to deal with them.

A monitoring programme has been prepared showing, for each significant effect, what data should be monitored, the source of the data, the frequency of monitoring, as well as when and what actions should be considered if problems are identified from the monitoring.

The results are presented in Chapter 15 of this report.

5.3 Stage C – Preparing the ISA Report

This ISA Report has been prepared to accompany the draft ETP on consultation.

5.4 Stage D - Consulting on the Draft Revised ETP and ISA Report

5.4.1 Assessing significant changes

The ISA Report will be published for formal consultation with the Draft ETP. The results of the formal public consultation exercise may well result in changes to the Draft ETP and these will have implications for the ISA Report. In addition, the consultation exercise may result in direct changes to the contents of the ISA Report. These will be reported in the Post Adoption Statement.

5.5 Post Adoption Statement

Following completion of the public consultation and preparation of the Final ETP document, a statement (separate document) will be prepared setting out the following:

- How sustainability considerations have been integrated into the plan, for example any changes to or deletions from the plan in response to the information in the ISA Report.
- How the ISA Report has been taken into account.
- How the opinions and consultation responses have been considered and addressed. The summary should be sufficiently detailed to show how the plan was changed to take account of issues raised, or why no changes were made.
- The reasons for choosing the submitted plan in its proposed form, having considered other reasonable alternatives.
- The measures that are to be taken to monitor the significant environmental effects of implementation of the ETP.

5.6 Health Impact Assessment

In order to ensure that potential impacts of the ETP on health and health inequalities have been considered and to fulfil the requirements of health legislation, a Health Impact Assessment (HIA) has been undertaken in a fully integrated fashion with the SA/SEA process as set out in Table 4-1. The need for HIA arises from the recognition that the ETP proposals may impact on the factors influencing the health of communities and individuals, including such factors as noise and air quality, accessibility to key services and facilities and the design of transport infrastructure.

5.6.1 Approach to HIA

The HIA objectives that have been considered have been developed in the light of HIA guidance and identified health issues, as well as the consultation that has taken place. The approach to the HIA has ensured that all relevant topics have been considered throughout the assessment process from establishing the baseline and building up the area's population profile in terms of health, identifying the key issues, developing the ISA Framework, assessing the ETP, mitigation and monitoring.

Through the assessment reported in this ISA (Sections 11, 12 and 13 in particular) the HIA has identified actions that can enhance positive effects and reduce or eliminate negative effects of the ETP, with respect to health and health inequalities.

5.6.2 HIA consultation

Consultation to inform the HIA has been undertaken as part of the overall SA/SEA process. Consultation responses have been analysed to inform the HIA (see reporting and consultation as part of the ISA process).

5.7 Equality Impact Assessment

In order to ensure that potential impacts of the ETP on equality have been considered and to fulfil legislative requirements, an Equality Impact Assessment (EqIA) has been undertaken in a fully integrated manner with the SA/SEA process.

5.7.1 Approach to EqIA

The EqIA objectives that have been considered have been developed in the light of EqIA guidance and identified equality issues, as well as the consultation that has taken place. The approach to the EqIA has ensured that all relevant topics have been considered throughout the assessment process from establishing the baseline and building up the area's population profile in terms of equalities, identifying the key issues, developing the ISA Framework, assessing the ETP, mitigation and monitoring.

5.7.2 EqIA consultation

Consultation to inform the EqIA has been undertaken as part of the overall SA/SEA process. Consultation responses have been analysed to inform the EqIA (see reporting and consultation as part of the ISA process and Appendix A: ISA Scoping Consultation Responses for full details).

5.8 Rural Needs Impact Assessment

In order to ensure that potential impacts of the ETP on rural communities have been considered, a Rural Needs Impact Assessment (RNIA) has been undertaken in line with The Rural Needs Act (Northern Ireland) 2016 in a fully integrated fashion with the SA/SEA process as set out in Table 4-1. It is the intention that this helps ensure that the action required to ensure fair outcomes from policy/plan delivery across rural and urban areas is determined and addressed in the plan/policy making process.

5.8.1 Approach to RNIA

The RNIA objectives that have been considered have been developed in the light of government guidance and identified rural issues, as well as the consultation that has taken place. The approach to the RNIA has ensured that all relevant topics have been considered throughout the assessment process from establishing the baseline and building up the regions rural profile, identifying the key issues, developing the ISA Framework, assessing the ETP, mitigation and monitoring.

In defining and addressing the issues in respect of rural needs, the ISA considered the following:

- What are the objectives of ETP?
- What are the needs of rural areas?
- What impact is ETP likely to have in rural areas?
- How would a fair outcome be ensured for rural areas?
- How has the ISA ensured consideration of rural areas and influenced ETP in this regard?

The RNIA Objective, sub-objectives and supporting assessment aid questions are set out in Table 8-4.

5.8.2 RNIA consultation

Consultation to inform the RNIA has been undertaken as part of the overall SA/SEA process. Consultation responses have been analysed to inform the RNIA (see reporting and consultation as part of the ISA process).

6. Review of relevant legislation and other plans and programmes

6.1 Introduction

The first task of the ISA is the identification of other relevant plans, policies, programmes and legislation. This helps to establish relevant environmental and wider sustainability themes, baseline information and key issues. The ETP must be prepared to take these PPPs into account as it may influence and be influenced by them.

The SEA Regulations[14] specifically states (Schedule 2) that information should be provided on:

"The relationship [of the plan or programme] with other relevant plans and programmes"

"The environmental protection objectives, established at international, [European] Community or [national] level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation"

In addition to this, the PPPs related to wider sustainability, HIA, EqIA and RNIA have also been considered.

6.2 Methodology

Both the ETP and the ISA Report should be set in the context of international, national, regional and local objectives along with environmental, strategic planning, transport, health, social, economic and equality policies.

Relevant plans and programmes include those at different levels (international, national, regional and local) which influence the Transport Plan, or those in other sectors which contribute, together with the Transport Plan, to sustainability conditions of the area to which they apply.

Appendix B lists the documents reviewed to identify environmental, social (health and equality) and economic themes. A series of key generic themes which have emerged from the review are presented below.

6.3 Themes

The review of PPPs revealed a large number of common themes in terms of their objectives relating to sustainability within the context of transport planning. These are listed below:

Air Quality

- Reduce emissions of NO_2
- Reduce emissions from road transport in particular
- Reduce emissions from other forms of transport
- Switch fuel choice to low emission / zero emission at point of use vehicles
- Reduce emissions of PM_{10} and $PM_{2.5}$

[14] The Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004

Greenhouse gas (GHG) Emissions

- Reduce GHG emissions, particularly CO_2
- Maximise the use of renewable energy
- Increase energy efficiency and make use of new technology
- Minimise use of fossil fuels
- Contribute to the achievement of Net Zero Carbon

Adaption to Changing Climate and Flooding

- Prepare for extreme weather events, increased periods of storminess and sea level rise
- Minimise the risk and impact of flooding
- Avoid development in floodplains when possible
- Assist in protecting against coastal erosion
- Avoid development in areas known to be at risk of coastal erosion
- Help meet objectives of Flood Risk Management Plans allowing for climate change

Biodiversity, Fauna and Flora

- Protection of sites designated for nature conservation purposes
- Protect and enhance endangered or important species (including Northern Ireland Priority Species) and habitats (terrestrial and marine)
- Contribute to the delivery of biodiversity strategies and plans
- Increase important habitat
- Protect, maintain and where possible enhance natural habitat networks and blue and green infrastructure, to avoid fragmentation and isolation of networks
- Achievement of Biodiversity Net Gain

Cultural Heritage

- Protect, conserve and enhance historic assets (designated and undesignated) and those of cultural note, including archaeology and historic landscapes
- Improve access to historic assets, including buildings and landscapes of value where appropriate.
- Sympathetic design and use of heritage assets when appropriate to enhance the local character and ‘sense of place’

Water Resources

- Protect and improve the quality of ground and surface water
- Help to meet objectives of the Water Framework Directive (WFD)
- Make use of Sustainable Drainage Systems (SuDS)

Land Use, Soil and Agriculture

- Prioritise development on brownfield sites
- Seek to reclaim derelict and contaminated land
- Prevent soil contamination
- Protect farmland and soils
- Change agricultural land use to forestry

Landscapes and Townscapes

- Protect and enhance landscape and townscape character and local distinctiveness from impacts caused by the transport network
- Protect tranquillity from the impacts of noise and light pollution from the transport network
- Protect and enhance seascapes from impacts caused by the transport network

Natural Resources and Waste

- Ensure efficient resource use and minimise resource footprint
- Use secondary and recycled materials
- Consider opportunities to maximise on-site re-use of materials
- Employ waste reduction methods to minimise construction and maintenance waste
- Reduce the amount of waste disposed of at landfill
- Promote circular economy
- Avoid the sterilisation of mineral resources

Economic Themes

- Improve physical accessibility to jobs through the location of employment sites and transport links close to areas of high unemployment
- Widen the number and range of accessible employment opportunities and support growth in employment and labour productivity
- Make the area more attractive for inward investment
- Improve rail and road journey reliability for business users
- Support local businesses
- Support enhancement of local economy and overall prosperity
- Support development of the skills base

Health Themes

- Tackle poor health by facilitating improving the health of everyone, and of the worst off in particular
- Contribute to the reduction of health inequalities among different groups in the community (e.g. young children, pregnant women, black and minority ethnic people; older people, people with disabilities; low income households)
- Support the public to make healthier and more informed choices with regard to their health and adopt physically active lifestyles
- Address pockets of deprivation
- Provide physical access for people with disabilities
- Provide or improve access to local health and social care services
- Provide opportunities for increased exercise and access to greenspace, thus helping to facilitate the reduction of obesity, particularly in children, and illnesses such as coronary heart disease
- Consider provision for an ageing population
- Promote healthy lifestyles through exercise, including through access to greenspace, which can assist in reducing both physical and mental illnesses
- Promote physically active travel, which can assist in reducing both physical and mental illnesses
- Promote better access to food resources, which can assist in reducing both physical and mental illnesses.
- Help create communities which are safe, inclusive, fair, tolerant and cohesive
- Assist reductions in crime and anti-social behaviour
- Improve perceptions that the communities are safe places to work, live and visit
- Reduce speeding and improve road safety

Equality Themes

- Uphold human rights (e.g. the right to liberty and security of person) and fundamental freedoms (e.g. a right to freedom of thought, conscience and religion, freedom of expression, etc.)
- Prohibit discrimination, harassment and victimisation on such grounds as sex, race, language and religion
- Promote equality of opportunity in the way services are planned, promoted and delivered;
- Treat everyone with dignity and respect
- Recognise people's different needs, situations and goals and remove the barriers that limit what people can do and can be
- Help create sustainable communities which are active, inclusive, safe, fair, tolerant and cohesive
- Help create sustainable communities which are fair for everyone - including those in other communities, now and in the future
- Improve economic, social and environmental conditions particularly in the most deprived areas
- Ensure fair access to and distribution of resources across the community, including rural areas
- Assess and address the impacts upon diverse communities including cultural, racial, economic, generational, social (including disabilities) and religious mixes
- Create a sense of belonging and wellbeing for all members of the community
- Provide physical access for people with disabilities
- Minimise isolation for vulnerable people

Rural Themes

- Improved transport provision and connectivity
- Ensure access to urban areas and other centres and facilities for employment, commerce, education and health services (including hospitals and other health facilities)
- Social / rural isolation with consequent health and wellbeing effects
- Retention and development of accessible local services and facilities
- Support for development, diversification and innovation of agricultural and other land based rural businesses
- Sustainable growth and expansion of all types of business in rural areas
- Developments which respect the character of the countryside
- Protecting the rural environment

7. Baseline information and Key Sustainability Issues

7.1 Introduction

In order to assess the potential sustainability effects of the ETP on the Eastern Transport Area and surrounding areas, it is necessary to establish a baseline against which predicted effects can be assessed, and then to identify issues and trends that are related to each of the environmental, social and economic interests that may be affected by, or affect, the proposed plan. This is in keeping with the SEA Regulations which state that the Environmental Report should provide information on:

"*The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme" and "The environmental characteristics of areas likely to be significantly affected*" (Schedule 2, 2 and 3)

and

"*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 Directives 79/409/EEC on the conservation of wild birds and the Habitats Directive* " (Schedule 2, 4).

Therefore, baseline information plays a fundamental role throughout the stages of the ISA as it provides the evidence base from which to predict and monitor effects of the ETP. As such, it is first important to understand its current state and then examine the likely evolution of the environment without the implementation of the plan.

7.2 Methodology

The most efficient way to collate relevant baseline data is through the use of indicators. This ensures that the data collation is both focused and effective. The identification of relevant indicators has taken place alongside the assessment of other relevant plans, policies and programmes, the identification of sustainability issues. This aids the development of the ISA framework.

It should be noted that the ISA process does not require the collection of primary data, but relies on the analysis of existing information. As such, where data gaps exist this is highlighted in this report.

Indicators have been selected for their ability to provide objective data that will, over time, offer an insight into general trends taking place. Throughout the assessment process the following issues will need to be addressed:

- What is the current situation, including trends over time?
- How far is the current situation from known thresholds, objectives or targets?
- Are particularly sensitive or important elements of the environment, economy or society affected?
- Are the problems of a large or small scale, reversible or irreversible, permanent or temporary, direct or indirect?
- How difficult would it be to prevent, reduce or compensate for any negative effect?
- Have there been, or will there be, any significant cumulative or synergistic effects over time?

Since ISA is an iterative process, subsequent stages in its preparation and assessment might identify other issues and priorities that require the sourcing of additional data and/or information and identification of monitoring

strategies. This makes the ISA process flexible, adaptable and responsive to changes in the baseline conditions and enables trends to be analysed over time.

7.3 Data Analysis

Data have been collated and analysed for the following indicators:

Environmental Data

- CO_2 emissions
- Climate change
- Local air quality
- Noise Pollution
- Biodiversity, fauna and flora (including designated sites)
- Landscape and townscape
- Heritage assets
- Green space
- Soil / land classification
- Water quality
- Flooding
- Waste and resources

Economic Data

- Employment
- Long term trends in Gross Value Added (GVA)
- Long term trends in population
- Economic sectors, including those related to rural output
- Identification of economic centres

Social Data (including Health, Equalities and Community Safety)

- Population and diversity
- General health statistics
- Accessibility to public transport and key services
- Access to green-blue spaces
- Road safety and accidents
- Physical activity in children and adults
- Equality target groups
- Multiple deprivation

The baseline data provides an overview of the sustainability characteristics of the ETP area. This overview, together with contextual information, is presented in Appendix C. The analysis of the baseline has highlighted a number of key issues across the Eastern Transport Area. These, together with implications and opportunities arising for the ETP, have been summarised..

7.4 Data Limitations

It is believed that the data sets available provide a comprehensive overview of the sustainability situation across the ETP area. However it should be borne in mind that the assessment is desk based and relies principally on open source data, where available.

7.5 Key sustainability issues, implications and opportunities

The SEA Regulations states that the Environmental Report should provide information on:

"Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC on the conservation of wild birds and the Habitats Directive." (Schedule 2)

This ISA is concerned with the three dimensions of sustainability (social, environmental and economic) and the identification of problems much broader than required by the SEA Regulations.

As such, the following sections provide a description of key baseline data and associated sustainability issues together with a discussion on the implications/opportunities of such issues to ETP. The analysis of baseline data and sustainability issues has influenced the development of the ISA Framework (see Chapter 7) in terms of formulating sustainability objectives and assessment aid questions. Note that this section has been updated with information received as part of consultation responses made to the ISA Scoping Report and the identification of further relevant information during the assessment process.

It should be noted that, because HIA, EqIA and RNIA are also being undertaken, the approach involved the identification of generic HIA, EqIA and RNIA key sustainability issues, implications and opportunities and objectives. These have been further developed to ensure a more in-depth level of coverage of issues to satisfy specific HIA and EqIA requirements leading to the development of HIA and EqIA sub-objectives (see Chapter 5).

Table 7-1 - Key Issues, Implications and Opportunities for the ETP

Key Sustainability Issue	Review	Implications / Opportunities for the ETP	ISA Objective
Air Quality **Air pollution impacts on public health, the natural environment and the economy.**	Air quality has improved in the UK over the last sixty years as a result of the switch from coal to gas and electricity for heating of domestic and industrial premises, stricter controls on industrial emissions, higher standards for the composition of fuel and tighter regulations on emissions from motor vehicles. However, poor air quality, particularly due to emissions from motor vehicles, remains a significant issue for community health for the population as a whole but particularly for certain vulnerable or protected characteristic groups such as the elderly, children, those with existing health conditions, those who are pregnant and those living in areas of deprivation. Poor air quality also has significant implications for biodiversity e.g. due to pollutant deposition, especially in/downwind of urban areas and major transport networks. Poor air quality is generally associated with urban/industrial areas and major road infrastructure and this is reflected in the typical location for Air Quality Management Areas (AQMA), many of which have been designated due to high Nitrogen Dioxide (NO2) and Particulate Matter 10 (PM10) levels. Within the ETP area, a total of eight AQMA's have been declared: ▪ Four in Belfast City Council, all declared for NO2 (Westlink, East Bridge Street, Upper Newtownards Road and Ormeau Road); ▪ One in Antrim and Newtownabbey Borough Council, declared for NO2 (Elmfield); ▪ Two in Mid and East Antrim Borough Council, one declared for PM10 (Ballykeel) and one for NO2 and (Linenhall Street); and ▪ One in Lisburn and Castlereagh City Council, declared for NO2 (Normandy Court). The UK Government has noted that addressing road transport emissions presents the most significant opportunity to tackle this specific exceedance problem (NO2 pollution). However, it is important to note that there are other elements which also need to be addressed in addition to road vehicles and this includes reducing emissions from other forms of transport such as rail and aviation. **Likely evolution of the baseline** Improving - At the national level air quality is generally improving as industrial practices, energy sources and tighter environmental legislation have contributed to reductions in pollutants. Nevertheless, it remains a significant issue in many discrete areas and has significant ongoing issues in respect of health.	▪ The ETP should aim to protect and improve air quality. Exploration into how active travel along corridors where there are existing air quality issues or where it may impact on particular vulnerable receptors could be undertaken. It should seek to ensure that reducing NO2 and particulate emissions is a fundamental principle of the Plan. ▪ The ETP should also aim to meet Government targets for air quality and be reflective of appropriate legislation and should consider ecological receptors alongside human receptors when dealing with air quality. ▪ Examples of how this could be addressed include consideration and promotion of sustainable modes of transport including active modes, low or zero emission vehicles, greater emphasis on public transport, smarter travel management such as workplace, residential and school travel plans, creation of inter-modal interchanges, sustainable freight movements and traffic management interventions.	Protect and improve air quality
Greenhouse gas emissions and a changing climate	The release into the atmosphere of greenhouse gases (e.g. CO_2, CH_4, N_2O, O_3) resulting from fossil fuel usage, agriculture, land use change and other human activities has been linked with atmospheric warming and global climate change[15]. Changes in temperature and rainfall patterns, along with more frequent extreme weather events, create the situation where a greater degree of resilience will have to be incorporated into plans and proposals. As noted by the Committee for Climate Change (CCC), domestic transport emissions of road transport account for around a quarter of UK greenhouse gas emissions, with the use of cars being the single greatest user of fuel. Within each of the council areas within the ETP region the transport sector was at least one of the top three largest CO_2 emitting sectors. At present, fossil fuel dependency remains high and is likely to remain so for some time (even with a marked, albeit potentially temporary, decline due to Covid-19), though in recent years there have been improvements in vehicle efficiency and an increasing uptake of and provision for, electric vehicles (EV). There is a network of 337 public charge points across Northern Ireland. These are owned and operated by the Electricity Supply Board. The Northern Ireland Energy Strategy targets a 56% reduction in energy-related carbon emissions relative to 1990 levels by 2030. This is in line with the CCC's recommended pathway for Northern Ireland to arrive at net zero carbon energy by 2050. Nevertheless, some degree of climate change will occur, with the UK's Climate Projections showing that the UK as a whole is likely to experience hotter, drier summers, warmer, wetter winters and rising sea levels. This is likely to have a significant effect on a range of environmental conditions, including the water environment. **Likely evolution of the baseline** Declining - Interventions at the local and regional level have started to reduce the rate of greenhouse gas emissions; and actions outside the ETP are contributing to a reduction in emissions. However, the underlying trend points towards a slowing of emissions rather than reversal of trends. Climate change is recognised as a global concern with the UK anticipated to experience hotter, drier summers; warmer, wetter winters; and rising sea levels and it is anticipated that extreme weather	▪ The ETP should seek to ensure that reducing CO2 emissions and achieving Net Zero carbon is a core component of all implementation plan elements and works to achieve the CCC's target of Net Zero Carbon by 2050. Although it should also be realistic that projected levels of traffic growth mean emissions will likely remain an issue and that removals will therefore be required. ▪ The ETP should also seek to ensure that new transport interventions maximise the opportunity for increasing tree / vegetation cover, where practical, in order to absorb increased amounts of CO2 from the atmosphere, e.g. through the use of street trees or planting in other areas of transport infrastructure. ▪ As with air quality, other examples of how CO2 emissions could be addressed include consideration and promotion of sustainable modes of transport including active modes, encouraging uptake of sustainable fuels, creation of inter-modal interchanges, sustainable freight movements and traffic management interventions.	Reduce carbon dioxide (CO2) emissions from transport and contribute to meeting Net Zero carbon target

[15] Climate change | nidirect

Key Sustainability Issue	Review	Implications / Opportunities for the ETP	ISA Objective
	events will increasingly impact transport networks as well as wider society. These trends are anticipated to continue irrespective of interventions from outside the ETP.		
Greenhouse gas emissions and a changing climate	Within the ETP area, there are a range of sites designated for nature conservation. Of note, there are eight Special Protection Areas (SPA) sites, six Special Area of Conservation (SAC) sites, and six designated Ramsar sites. Carlingford SPA has been considered within the ISA despite being outside the ETP boundary, due to internationally and nationally important mobile species being partly responsible for its designation. 66 Areas of Special Scientific Interest (ASSIs) are distributed across the plan area, the majority in favourable or favourable recovering condition. These include sites designated for biological and geological reasons. There are 11 Nature Reserves within the ETP area and three RSPB Reserves. There are no Biosphere Reserves in the ETP area. Key pressures and risks in respect of biodiversity and nature conservation that are particularly relevant have been identified from air pollution and climate change, which can change distribution of species and habitats. The Inventory of Ancient and Long-Established Woodland identifies 2,374 sites, totalling 9,964ha in Northern Ireland. Of this, only 151ha is classified as Ancient Woodland (present since 1600AD). New transport interventions have the potential to impact on the sites of ecological or geological value and more generally on the network of linked multi-functional green spaces, comprising the local green infrastructure, through direct land take for infrastructure (which may contribute to fragmentation) and construction and operational disturbance (noise, vibration, light pollution, etc.) and emissions / contamination (air, water and soil), though they may also provide opportunities for enhancement. Increased accessibility to designated sites also has the potential to adversely impact on them (though it can have benefits in terms of population health and wellbeing). Direct road kill can also impact on some species. On the other hand, transport infrastructure can provide opportunities for increased biodiversity, or to aid certain species such as the through the All-Ireland Pollinator Plan. The ETP area also contains a site which is being explored to establish a UNESCO Geopark area which would recognise the significant geological, historical and cultural heritage of the area, covering both the Mid and East Antrim Council and Causeway Coast and Glens Council. If established, it would become the UK's tenth UNESCO geopark. **Likely evolution of the baseline** Uncertain - The designated elements of the ETP area, biodiversity resource are afforded some protection from the pressures of development, outside the ETP. However, much of the green infrastructure network is not designated. Climate change will likely result in decline of some habitats and species, though may afford opportunities for other species, including invasive species.	▪ The ETP area should aim to protect and enhance all sites of biodiversity importance and should place a particular emphasis on protecting sites designated for nature conservation and geodiversity purposes. This should also include ecological networks which are valuable in contributing to protecting biodiversity. This could be achieved by ensuring that planning / design of transport interventions avoid sensitive areas and through the adoption of best practice wildlife friendly designs into transport interventions. Where this is not possible, there should be mitigation and compensation for losses. ▪ Consideration should also be made of protected and priority species and their habitats, both terrestrial and marine. In addition, consideration should be given to those sites designated for their geodiversity. ▪ The ETP should promote ecosystem resilience, referring to the ability of an ecosystem to maintain its normal patterns of nutrient recycling and biomass production after disturbance, including human interference from the construction or operation of schemes in the ETP. ▪ Opportunities for new habitat creation and enhancement associated with transport developments should be explored, e.g. through the use of appropriate locally native species in landscaping plans, through creation of new road verges and enhancement of the existing road verge network. The potential for biodiversity creation in brownfield sites should be also taken into account. There should therefore be achievement of Biodiversity Net Gain in areas not formally designated, with guidance on the appropriate form of biodiversity enhancement taken from the relevant Biodiversity Opportunity Area (BOA) guidance. ▪ Other opportunities for the ETP include the following: ▫ avoid the fragmentation of blue and green infrastructure, which contributes to protecting natural habitats and biodiversity; ▫ the need for cohesive habitat networks to help habitats and species adapt to the consequences of climate change; ▫ enhancement of the blue and green infrastructure through, for example, footpaths, cycle lanes and other public rights of ways. Increased access to appropriately designed multi-functional blue and green infrastructure can play a significant role in diverting access pressure away from more sensitive sites, such as those designated for wildlife and geological conservation. ▪ In parallel with the ISA of the ETP, HRA is being undertaken which will identify the internationally designated nature conservation areas to avoid, or where this is not possible, appropriate mitigation measures to identify very early on in the development of the ETP.	Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain. Protect and enhance sites designated internationally for nature conservation purposes Protect, enhance and promote geodiversity

Key Sustainability Issue	Review	Implications / Opportunities for the ETP	ISA Objective
Water Resources	There are considerable pressures on water resources with resulting major impacts on many of the waterbodies across the UK. For the purposes of taking a holistic approach to management of water resources and to address the pressures on the water environment, under the Water Framework Directive (WFD), the UK has been divided into a series of River Basin Districts (RBD). Those of relevance to the ETP area are: ▪ North Eastern RBD; and ▪ Neagh Bann RBD. As with most water bodies in the UK, there are a range of significant water management issues manifested in these RBD, with diffuse pressures from agricultural sources and point source pressures from urban wastewater and development being the two most significant sources of pressure preventing water bodies from achieving good status in both of the relevant RBDs. Groundwater provides a 6% of drinking water in Northern Ireland. This is significantly lower than in England and Wales but reflects the more favourable conditions for the development of surface water resources in Northern Ireland. Ten transitional and coastal waterbodies are within the ETP region. Between the 2015 and 2018, the surface water status of the 25 waterbodies lining the Northern Ireland coastline improved however comparing to the 2021 records, this no longer appears to be the case. All waterbodies have been classified as having moderate or below surface water quality. Coastal change along Northern Ireland's coast is divided in four coastal cells with over 50 records along the ETP area. The largest natural shoreline erosion levels in over 193 years, and the largest shoreline advancement over the last two decades were recorded on the western side of Magilligan Point in County Londonderry and Murlough near Newcastle respectively, both outside of the ETP area. **Likely evolution of the baseline** Improving - Surface and ground water quality is predicted to increase, though significant challenges remain as noted in the River Basin Management Plan.	▪ The ETP should seek to prevent pollution of water bodies (including groundwater and marine waterbodies) both during the construction and operation of any transport intervention. This could be achieved via the appropriate use of SuDS or other appropriate measures and new approaches in road drainage design / transport interventions to enhance water quality and reduce pollution and flood risk. Risk to all types of water bodies (not just main rivers) is to be considered during any scheme design. ▪ Recognition of the objectives of the WFD should be made and all opportunities to help meet the objectives of the WFD should be taken when possible. ▪ Green-blue Infrastructure should be considered in the ETP in the context of the aims of the WFD and how this can realise these, as well as other wider, benefits and objectives.	Protect and enhance the water environment
Adaptation to a changing climate and flooding	Significant proportions of the UK population are at risk from flooding, although the degree of risk varies, with a range of factors affecting potential risk. The Water Environment (Floods Directive) Regulations (Northern Ireland) 2009 require a Flood Risk Management Plan (FRMP). The second cycle Flood Risk Management Plan 2021-27 highlights the flood hazards and risks in the Areas of Potential Significant Flood Risk in NI from rivers, the sea and surface water. It consolidates each of NI's three principal river basin districts, North Eastern, Neagh Bann and North Western into one plan. Examples of recommendations to manage the adverse consequences of flooding are[16]: ▪ new structural flood defences are built; ▪ existing flood defence assets are to be maintained in order to ensure; that an acceptable standard of flood protection is provided; ▪ we promote natural flood management techniques; ▪ people improve the flood resilience of their homes where no viable; structural measure is available; ▪ flood warning and informing systems are developed. Flood risk presents a significant planning issue in the development of major infrastructure projects, both in terms of potential direct impacts on the project itself and indirect impacts associated with works (such as increased run-off). In relation to transport infrastructure, there is a direct flood risk to the infrastructure itself, e.g. roads, rail lines, or development of other transport infrastructure can aggravate existing flood risk in a wide range of ways, for example by requiring land take from flood plains, or by changing the drainage regime, etc. Expected climate change impacts to transport infrastructure include increased risk of extreme flooding (from more frequent "heavy precipitation events") and more extreme weather events from higher temperatures and increased wind and rain in winter months. This is likely to result in: ▪ Direct impacts of flooding on transport infrastructure, now and into the future. ▪ Secondary impacts of flooding such as flood damage to bridges, embankments, surfaces etc. Other climate change impacts to transport infrastructure could include: ▪ Impacts from extreme temperatures such as rail buckling and passenger discomfort	▪ ETP should seek to ensure that transport infrastructure minimises any negative effects arising from flooding and avoids where possible areas of highest flood risk. Flood risk should be considered in any future designs and the implementation of SuDS and other similar appropriate measures or new approaches should be considered and encouraged where feasible at the appropriate time. ▪ ETP should ensure that where transport interventions require a land take from the floodplain there are appropriate compensatory measures put in place. ETP should also avoid measures that could impact on coastal change. ▪ ETP should seek to explore the possibilities for creating blue infrastructure which can both help to manage localised flood risk and simultaneously create new habitats. ▪ ETP should recognise the challenges that a changing climate will bring and aim to reduce the impacts. More frequent and extreme weather events should be considered in any infrastructure design and maintenance procedures / regime.	Increase resilience of the transport network to the effects of a changing climate such as extreme weather events

[16] 2nd Cycle - Flood Risk Management Plan 2021-2027 | Department for Infrastructure (infrastructure-ni.gov.uk)

Key Sustainability Issue	Review	Implications / Opportunities for the ETP	ISA Objective
	▪ Increased disruption to operations, e.g. lift of aircraft reduced through higher temperature Future coastal change trends in Northern Ireland are shaped by a combination of natural processes and human activities, with climate change acting as a major accelerating factor. Northern Ireland is projected to experience at least 11 cm of sea-level rise by 2100, with worst-case scenarios suggesting up to 94 cm if global emissions are not curbed17. This rise increases the risk of coastal flooding and erosion, particularly in low-lying and unprotected areas. About 19.5% of Northern Ireland's coastline is currently eroding or at risk, and 32% has some form of manmade protection[17]. The region is expected to face warmer, wetter winters and hotter, drier summers, which can exacerbate coastal erosion and flooding risks. An increased storm intensity and frequency may also contribute to coastal infrastructure vulnerability. **Likely evolution of the baseline** Declining - Climate change is recognised as a global concern with the UK anticipated to experience hotter, drier summers; warmer, wetter winters; and rising sea levels. These trends are anticipated to continue irrespective of interventions from outside the ETP.		
Land use, soil and contaminated land	There is a mix of land uses across the ETP area, ranging from rural areas of open countryside or through arable farmland and pasture to extensive heavily urbanised areas, concentrated on the urban centre of Belfast. There are also areas of suburban and urban fringe associated with the main towns and distinct pockets of 'isolated' urban development in the form of villages and small towns. Soils in Northern Ireland, being located in a temperate region, suffer from water erosion which will only continue and intensify with the changing climate. These soils also continue to be degraded by human activity, including through intensive farming activities which transport sediment and nutrients into the neighbouring natural and built environment with machinery, losing nutrients and organic matter. Many areas of land in the UK have been contaminated by past industrial and other human activities, including former factories, storage depots and landfills. Transportation infrastructure is also a frequent source of land contamination. Land at the full range of potentially contaminated sites could be contaminated by a wide range of harmful substances such as oils and tars, heavy metals, asbestos and chemicals. It is often difficult to know where land has been contaminated previously or is currently suffering ongoing contamination. As such the number of known sites of contamination is likely to be only a very small fraction of the overall number of potentially contaminated sites. Given the present and historic levels of industrial, commercial and transportation activity in the ETP area, as well as the wide range of activities undertaken, it is considered that the number of areas of contaminated land could be considerable. Within the ETP region there are over 4,000 areas of historical land use identified. These include mineral workings, railway land, military installations, airports and engineering works. The historical land use sites are designated due to past specific land uses, past activities or pollution events by DEFRA. There are around 160 quarries, mines and sand pits in NI and the mineral products sector is a major industry.[18] **Likely evolution of the baseline** Declining - it is likely that greenfield sites will experience increasing pressure for development in preference to the complexities of redeveloping previously developed and potentially contaminated sites. This could reduce available high quality soil resources and fail to realise the potential of existing capacity within existing urban and previously developed areas. Remediation of contamination is likely to remain sporadic and reflective of individual site requirements.	▪ ETP should seek to make best use of areas that are already urbanised and provide an opportunity for regeneration / improvements to land quality. Where use of agricultural land is unavoidable, measures should be taken to avoid those areas of the highest quality and aim to protect soil and agricultural holdings through avoidance of impacts such as contamination or severance. ▪ ETP should seek to protect soils where possible as they are essential for achieving a range of important ecosystem services and functions. ▪ Dealing with the past pollution / contamination legacy is a major issue across the ETP area and should be addressed at all opportunities due to its ongoing environmental impact.	Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources
Cultural Heritage	There is one World Heritage Site within the ETP area (Gracehill Moravian church Settlement), as well as a wide range of other historic and cultural heritage features located across the region which span the full range of human settlement, from the prehistoric to the present. These include Scheduled Monuments, Historic Parks and Gardens, Industrial Heritage features and Listed Buildings. Approximate numbers of sites within the ETP area are as follows: ▪ Listed Buildings – 3,293 ▪ Registered Parks and Gardens – 79 ▪ Scheduled Monuments – 522 ▪ Industrial Heritage features – 4,500	▪ ETP should aim to protect and preserve designated and non-designated heritage assets and their contexts and settings. ▪ Transport related development / infrastructure should be sensitively designed to be sympathetic to its existing character and quality and opportunities for improving settings should be examined. Better accessibility to the historic environment should also be an aim for ETP, where appropriate. ▪ At the design stage, where schemes would involve physical development that could affect previously undiscovered archaeological assets the design of the scheme and site	Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings

[17] Climate Northern Ireland, Northern Ireland Climate Change Risk Assessment PowerPoint Presentation
[18] Facts and figures | MPA NI

Key Sustainability Issue	Review	Implications / Opportunities for the ETP	ISA Objective
	It is important to note that the nature of cultural heritage features means that not all are known at present; in particular, buried archaeological remains. **Likely evolution of the baseline** Stable / Declining - Designated heritage assets benefit from protection that will continue without the ETP. However, there is a risk or uncoordinated and piecemeal development resulting in the successive erosion of the quantum and integrity of the region's cultural heritage resource.	selection should be informed by early investigation of the potential archaeological interest of the affected land.	
Landscapes and townscapes	Northern Ireland has a wide variety of scenic countryside, reflecting its contrasting geology and topography as well as a long history of settlement and land use19. The Northern Ireland Regional Landscape Character Assessment subdivides the countryside into 26 Regional Landscape Character Areas (LCA). Those which intersect the ETP region include Strangford, Ards and Lecale, Belfast and Lagan Valley, Lough Neagh Basin and South Antrim Hills and Six Mile Water. The varying landscape in the ETP region moves from the urban area of the city and associated inland settlements in Belfast and Lagan Valley LCA to the coastal lowlands of County Down including several small distinct areas, centred around Strangford Lough in Strangford, Ards and Lecale LCA and a vast sheet of water surrounded by very low-lying, often boggy land in the Lough Neagh Basin LCA.20 At a more local scale the Northern Ireland Landscape Character Assessment subdivides the countryside into 130 Landscape Character Areas and 52 of these intersect the ETP region. The Northern Ireland Seascape Character Assessment comprises 24 areas around the coast of Northern Ireland. Those which intersect the ETP region include Belfast Lough, Ards Peninsula, Strangford Lough, Belfast Harbour, Northern Glens Coast, Southern Glens Coast, The Gobbins and Larne Lough. The Northern Glens Coast is characterised by vegetated slopes and large sweeping sheltered bays, with largely unspoilt coastline, continuing southward to shallow and narrow sea lough at Larne Lough, into large scale open sea at Belfast Lough and the associated port at Belfast Harbour. Further south around Ards Peninsula, the seascape is characterised by gently sloping shoreline with nearby heritage assets before reaching the sheltered and complex Strangford Lough. There are a range of pressures on landscape, many of which are altering landscapes in a direction which could be regarded as inconsistent with the traditional landscape vernacular of the area. These changes are a reflection of the fact that the landscape of the UK has changed over many years due to a range of issues such as urbanisation, changes to agriculture, reduced tranquillity, loss of habitats and forests, etc. In an effort to preserve the best landscapes a series of National Parks and Area of Outstanding Natural Beauty (AONBs) were designated. There are no National Parks within Northern Ireland, but within the ETP area there are three AONBs: Strangford and Lecale, Antrim Coast and Glens, and Lagan Valley. There are approximately 60 Conservation Areas designated within Northern Ireland, covering a range of building characters and reflecting a diverse array of architectural styles. Ethnic minority groups value parks and green spaces more highly than white groups and tend to use them more for social purposes (e.g meeting friends, children's activities and sports). Given that the ETP area is more urban and more ethnically diverse than the region as a whole, parks and green spaces are a valuable asset in reducing inequalities, including health, in the region. **Likely evolution of the baseline** Stable - Many of the region's most exceptional landscape and townscapes benefit from protection through designations that will persist in the absence of the ETP. In general terms, modern design / landscaping principles and interested parties expectations are promoting a renewed focus on the quality of scheme design and this trend is likely to continue, though risks from increased urbanisation and infrastructure development remain.	▪ The ETP should seek to preserve and enhance the character of the region's landscape and townscape by ensuring that its integrity and valuable natural open space is not lost. Design should note the local vernacular architecture when possible. ▪ The ETP should also aim to ensure that transport interventions avoid sensitive areas and respect particular landscape or townscape settings, with consideration made of design quality in both an urban and rural setting. ▪ Opportunities for landscape enhancement should be explored, e.g. through sympathetic design and enhancements to existing landscape improvement areas, new planting opportunities associated with transport development. ▪ At design stage, where a scheme would involve physical development within a Conservation Area or a wider area for which a townscape/urban character appraisal has been undertaken, the design of the scheme should take account of relevant guidance for the Conservation Area / townscape character area.	Protect and enhance the character and quality of landscapes and townscapes and visual amenity
Waste Management and Resource Efficiency	The transport sector can impact on and interact with a wide range of resources such as through energy (fuel) use, use of construction materials (aggregate, concrete, etc.), waste generation and disposal, etc. The construction of new transport interventions' can contribute to increased levels of waste generated, if building materials are not efficiently used / reused. With more waste being produced, trip kilometres to transport such waste is likely to generate more traffic.	▪ The ETP should encourage the reduction of resource consumption, such as construction materials, e.g. through encouraging the use of recycled or secondary materials. This will also reduce the need to transport these materials and transport the waste by-products. ▪ The ETP can also help reduce the consumption of fuel by promoting a shift to more sustainable forms of transport such	Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated

[19] Landscapes | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)
[20] Northern Ireland Regional Landscape Character Assessment (arcgis.com)

Key Sustainability Issue	Review	Implications / Opportunities for the ETP	ISA Objective
	Transport is the largest energy consuming sector in the UK, representing 42% of total energy consumption in 2023, which increased to 52.6 million tonnes of oil equivalent (mtoe) (3.6%) between 2022 and 2023, with the majority of the increase due to increased demand in aviation fuel[21]. Energy use by road vehicles showed steady growth between 1970 and 1990, increasing by an average of 2.8% per annum. Growth then remained fairly stable until it peaked at 29,622 ktoe in 2007, the year prior to the 2008 recession. Growth in consumption turned positive again in 2014, but since 2016 has continued to decline. Road transport is the biggest contributor to transport energy consumption at 73% when considering transport modes. It is to be noted that while individual vehicles became more energy efficient, overall numbers of vehicles increased substantially. Energy consumption in rail transport was almost static in 2023 compared to 2022, indicating the improvement in energy intensity is a result of higher passenger loadings on trains. rail travel went from 50.6 billion passenger kilometres in 2022 to 58.4 billion passenger kilometres in 2023. Freight moved (in tonne kilometres) fell by 13% from 2014 to 2015. It is important to note that rail transport accounted for approximately 2% of energy consumption in the transport sector. There is a network of 337 public charge points across Northern Ireland. These are owned and operated by the Electricity Supply Board. It is anticipated that uptake of EV will increase across the UK. **Likely evolution of the baseline** Uncertain - Continued growth within the region will contribute towards a trend of increased waste and resource use. While new approaches are helping to shift towards greater efficiencies in resource use and adherence to the waste hierarchy, underlying waste generation volumes are anticipated to increase cumulatively. Energy usage within transport is falling and there will be an increase in the uptake of EVs (particularly when the EV charging network fully develops) alongside increased decarbonisation of electricity supply.	as active modes like cycling and walking, as well as Low and Zero Emission Vehicles (LZEVs). ▪ Appropriate management and maintenance of transport infrastructure can meet waste and resource goals as well as a range of other objectives.	
Economy, Employment and Skills	The Belfast Area economy was initially built on trade through Belfast Harbour, primarily through shipbuilding and linen. Overall economic activity in Northern Ireland has recovered from the prominent reduction in output during Quarter 2 of 2020 and is currently at a level not seen since mid-2008. The UK economy has rebound beyond its pre-pandemic level, while growth since 2006 far exceeds that in Northern Ireland. The service sector accounts for just over half of economic activity in Northern Ireland. Areas within the service sector include business services and finance, transport, storage, information and communication and wholesale & retail trade; repair of motor vehicles & motorcycles; accommodation & food. Production accounts for around 16% of economic activity in Northern Ireland, and within that manufacturing accounts for the vast majority of output (79.4%). Private sector businesses provide around 578,000 employee jobs and accounts for around three quarters of jobs in Northern Ireland.[22] The ETP region's proportion of residents at working age (53%) in 2020 and the percentage reported was lower than the Northern Ireland figure (62.2%). The NI seasonally adjusted unemployment rate (the proportion of economically active people aged 16 and over who were unemployed) for the period December-February 2025 was estimated from the Labour Force Survey at approximately 1.5%. In comparison, the unemployment rate in 2023 was 2.2%, showing an overall decrease. This is lower than the UK unemployment rate which is 4.4% over the same period. The seasonally adjusted employment rate (aged 16 to 64) in 2023 was estimated at 73.6%[23]. Across the ETP area, employment rates are highest in Mid and East Antrim Borough Council, at 79.5%. The employment rate has increased over the long-term, although the rate in NI is consistently below the rate in the UK overall.[24] In 2017, 16.6% of Northern Ireland residents aged 16 to 64 had no qualifications, compared to 8.0% of all UK residents.[25] In 2020/21, Armagh City, Banbridge and Craigavon LGD had the highest proportion of the 110,833 enrolments in Further Education across Northern Ireland, accounting for 15.0% (16,673), and within the ETP area Belfast had the highest, with 12.9% (14,350). Following a decline of 57,978 (37.3%) between 2017/18 (155,510) and 2020/21 (97,532), including a 34,822 (26.3%) drop between 2019/20 and 2020/21, the number of FE College enrolments increased by 13,301 (13.6%) in 2021/22,	▪ The ETP should improve transport links within and between employment (commercial and industrial) centres and improve connectivity to support business-to-business markets and access to wider and highly skilled labour markets. ▪ Improved connectivity should be achieved by sustainable and affordable modes of transport and/or improved digital connectivity. ▪ Reliability and resilience of transport links should be improved to enhance the productivity and competitiveness of the ETP area economy. ▪ The ETP should seek to reduce road congestion caused by private vehicles (therefore reducing the time to commute and transport goods). ▪ The ETP should consider that high quality green and blue infrastructure can play an important role in enhancing the visual appeal of transport infrastructure and help to encourage new inward investment, as well as help to retain high skilled labour.	Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all

[21] DESNZ (2023) *Energy Consumption in the UK (ECUK) 1970 to 2022.* Available: Energy Consumption in the UK 2023
[22] PowerPoint Presentation (nisra.gov.uk)
[23] NISRA (2024) *Labour Force Survey Annual Summary Report 2023.* Available: Labour Force Survey Annual Summary Report 2023
[24] NI Economy and Labour Market (nisra.gov.uk)
[25] Education and Skills | Northern Ireland Statistics and Research Agency (nisra.gov.uk)

Key Sustainability Issue	Review	Implications / Opportunities for the ETP	ISA Objective
	to 110,833. Overall enrolments continued to be impacted by a longer-term decrease in part-time enrolments, the relatively low number of 16-19 year-olds and pandemic-related GCSE and GCE grading arrangements[26]. Traffic congestion has a significant impact on the economy and the high levels of car use and particularly low occupancy vehicles cause severe peak period traffic congestion in Belfast in particular. Transport data firm Inrix found Belfast to be the 5th most congested city in the UK with an average of 72 hours lost and a cost of £542.22 per driver.[27] The impact of Covid-19 and an increase in working from home, along with greater online commerce, will likely require a greater digital connectivity, which will help to reduce transport need – it is noted that there are schemes in place which are helping to ensure digital connectivity across the country. **Likely evolution of the baseline** Uncertain – while the ETP area will likely remain an attractive location for business, with a highly skilled workforce, it is not immune to uncertainties relating to the outcome of the Covid-19 pandemic and wider macro-economic uncertainties such as that related to 'Brexit'.		
Patterns of land use and transport	The ETP region covers a mix of land use types across the study area, e.g. heavily urbanised, suburban, urban fringe and rural locations. The area also contains a range of settlement sizes, from cities and large towns to villages and small villages. Belfast is the largest and most significant urban settlement with a population of approximately 345,418 according to the 2021 Census. The Eastern area includes a number of commuter towns including Lisburn, Newtownards, Carrickfergus, Bangor and Hollywood. However, much of the ETP area is largely rural in nature. There is a network of 337 public charge points across Northern Ireland. These are owned and operated by the Electricity Supply Board. Northern Ireland had the lowest level of charging device provision in the UK, with 23 devices per 100,000. In comparison, the average provision in the UK was 73 per 100,000[28]. As EV uptake increases around the UK, so will the demand for electricity from the energy network will also increase. **Likely evolution of the baseline** Stable / Uncertain - ETP area will remain a densely populated, polycentric region, with patterns of land use reflective of proximity to Belfast City Centre. Belfast will likely remain the main attractor for both work and retail, however there is uncertainty how this may change over time though due to a likely rise in homeworking and e-commerce and a consequent change in commuting patterns.	▪ The ETP should support a co-ordinated approach to land use (including development of housing) and transport planning across the region and prioritise investment in this regard. ▪ The ETP should seek to improve accessibility to, and patterns of, public transport in rural areas. Key services for rural residents should be made more convenient via walking or cycling where possible.	Support the wider coordination of land use, energy sector planning and transport planning across the Eastern Transport Area and into surrounding regions Improve accessibility to services, facilities and amenities for all, in particular by active travel modes (EqIA specific objective)
Population and Health	The population of the ETP region is estimated to be just below 1 million, with significant population centres in the city of Belfast and large towns including Newtownabbey, Lisburn, Ballymena, Carrickfergus and Newtownards. Across the council areas within the ETP, life expectancies are generally higher than the national average. Lisburn & Castlereagh City Council has the highest male and female life expectancies at 80.3 years and 83.3 years respectively. Healthy life expectancy at birth also varies across the ETP region but is highest in Lisburn & Castlereagh City Council. In each of the relevant council areas the number of people claiming Job Seeker's allowance in 2023 was significantly reduced from the figures in 2022. Belfast City Council had the largest number of people claiming it and also the lowest decrease from 2021. As of August 2023, there were 72,210 claimants of Disability Living Allowance (DLA) and 75,930 claimants of Carer's Allowance in Northern Ireland. Over a quarter of adults (27%) were classified as obese in Northern Ireland in 2019/20, with a further 38% classed as overweight. 20% of children aged 2-15 were classed as overweight and 6% obese in the same period. It is reported that men in Northern Ireland between 2020-22 could expect to live 61.2 years in good health whilst females could expect 62.7 years. Of the suicides in Northern Ireland in 2019 88% of these deaths and 52% in 2020 were drug related. According to a health survey undertaken in 2022/23, around 20% of respondents had a high GHQ12 score, indicating a mental health problem (18% males and 22% females), significantly lower than in 2020/1.	▪ The ETP should seek to provide accessible and affordable transport, enabling good access to education, employment, fresh food, friends and family, leisure and health services and facilities. ▪ Indirectly, health levels could be improved through secondary effects of policies to reduce air pollution; decreasing noise pollution as well as traffic congestion. ▪ Improving walking and cycling facilities for both purposeful and recreational trips will both improve physical activity levels as well as decrease air pollution and traffic. ▪ Improving access to and provision of greenspace and improving the physical environment in general may increase both informal and formal physical activity levels, as well as create a general sense of wellbeing. ▪ The ETP should consider interventions that engender a sense of safety and reduce crime and fear of crime. This may be achieved indirectly via incorporation of design features such as additional lighting, CCTV and rapid response by police /	Contribute to the improvement of health and well-being for all citizens and reduce inequalities in health (HIA specific objective)

[26] Further Education Sector Activity in Northern Ireland by Local Government District: 2017/18 to 2021/22 (economy-ni.gov.uk)
[27] Belfast's Scorecard Report (inrix.com)
[28] Electric vehicle charging device statistics: October 2023 - GOV.UK (www.gov.uk)

Key Sustainability Issue	Review	Implications / Opportunities for the ETP	ISA Objective
	Across the 2022/23 year in Northern Ireland, 109,729 crimes were recorded in Northern Ireland, an increase of (0.6%) when compared to the previous year. In 2021/22 in each of the council areas relevant to the ETP area, with the exception of Lisburn & Castlereagh City Council the rates of crime have increased. It was reported that the crime rate in Northern Ireland in 2022 was 49 crimes per 1,000 people with the most common crimes being violence against the person. Of the council areas within the ETP area, Belfast City Council had significantly the largest number of domestic abuse crimes with 5,791 recorded in 2022/23. The lowest number were recorded in Lisburn & Castlereagh City Council area with 1,195. In 2022, 55 people were killed on Northern Ireland's roads and there were 7,846 casualties from collisions. In the ETP area, Belfast City Council had almost three times as many people affected by road traffic collisions in 2022/23 than any of the other relevant council areas and had the highest number of people killed with six. **Likely evolution of the baseline** Stable / Uncertain – while population levels are likely to continue to rise, there is uncertainty over migration levels due to a lack of clarity on issues such as 'Brexit'. Population profiles are also likely to continue to get older – this will likely result in changes to overall health outcomes with an increased number of long-term conditions. Additionally, crime is closely linked to economic outcomes and it is unclear how economic uncertainties (relating to Covid-19 and Brexit as well as other global issues as of October 2021) will be reflected in crime statistics.	security on transport, active street frontages, development reaching 'secured by design' standards). ▪ The Plan should seek to consider interventions that discourage incidences of anti-social behaviour and opportunistic crime, often attributed to 'boredom' or a 'lack of things to do', through increasing accessibility to community facilities, especially open and green space and leisure facilities.	
Population and Equalities	Within the relevant local council areas Belfast City council has the largest population with 345,400 people in 2021, which was at least twice the population as the other council areas. It also had the largest proportion of people of working age (16-64) at approximately 65%. In the ETP area 51.2% of the population are female, and the remaining 48.8% are male. The gender split across each of the relevant council areas is similar to that in the ETP area. The overwhelming majority of the ETP population in 2021 identified themselves as White with 900,967 (95.6%). Additionally, within this region, 494,138 (52.4%) identify as British, 233,155 (24.7%) Irish and 318,077 (33.7%) Northern Irish, including dual nationalities. In Northern Ireland, 3.45% of the population fall within the Black and Minority Ethnic group. Within the relevant council areas Belfast City Council has significantly the largest proportion in Black and Minority Ethnic group with 7.05%. Belfast City Council also has the largest proportion of people that cannot speak English well or at all with 1.37%. There was a decrease in the population reporting as 'Christian' from 77.5% in 2011 to 72.6% in 2021, which represents decrease of 4.9%. This was mainly due to a rise in religious affiliation as those residents responding with 'no religion' increased by 9.4% to 23.8%, from 14.4%. The number of residents reporting as other religion was 1.9% in the ETP region. With deprivation dispersed across Northern Ireland, overall, 90% of the local authority districts contain at least one of the top 100 most deprived Super Output Areas (SOA)[29]. In terms of the multiple deprivation measure, Belfast contains the highest number of SOAs within the top 100 most deprived of all local authorities with 50. Lisburn & Castlereagh City Council has none, and the remaining council areas have between 1 and 3. In Northern Ireland the rate of household overcrowding was 3.9%. In Belfast City Council this was higher than the NI at 5.2%. All other relevant council areas were lower than the national average. **Likely evolution of the baseline** Uncertain – it is unclear how current economic uncertainties will impact on the diversity of the plan area. It is also unclear how economic uncertainties (relating to Covid-19 and Brexit as well as other global issues as of October 2021) will be reflected in deprivation across the area.	▪ The ETP should aim to give all citizens the opportunity to access transport and related services that come with this. ▪ The Equalities Act 2010 provides a legislative framework to protect the rights of individuals and advance equality of opportunity for all. ▪ When considering approaches to community engagement, it is important to understand the diversity of the populations, their needs and the experiences of individuals. ▪ This requires examining the different issues, barriers and priorities for women and men and meeting any identified requirements. This may include, for example, not discriminating against employees because of their gender, ensuring both men and women have the same access to educational facilities, and considering safety and security issues for travelling, as research has shown that women experience more perceived safety issues when travelling alone than men.	Promote greater equality of opportunity through sustainable forms of travel interventions for all citizens, with the desired outcome of achieving a fairer society (EqIA specific objective)

[29] A Super Output Area is a statistical area identified to improve the reporting of small-area statistics, such as census results and deprivation measures.

7.6 Population and health

As set out in Chapter 2, Health Impact Assessment (HIA) is a practical approach used to judge the potential health effects of a policy, programme or project on a population, particularly on vulnerable or disadvantaged groups.

From a review of the population and human health baseline (presented in Appendix C) for the ETP Area, it has been possible to identify a number of groups who, along with the population as a whole (wider groups) could be considered vulnerable in terms of their health and wellbeing. These groups and the rationale for their identification is outlined in Table 7-2 below.

Table 7-2 - Identified vulnerable groups

Groups	Relevant receptor / medium	Explanation	Are these groups present within the ETP Area?
Wider Groups – adults / working people	Residents living in houses, operators and users of community land and facilities, business owners and users, users of open space, recreation and leisure activities, Non-motorised Users (NMU), public transport users and vehicle travellers	The key challenge to the physical health, mental and social wellbeing of the local resident population arises from inactivity and unhealthy lifestyle choices and are also linked to the local transportation and road network. Residents of properties in the wider study area, employees and customers at the retail, commercial and industrial businesses interspersed throughout the area, walkers and cyclists using recreation routes and the local footpath and cycleway network, visitors to nearby visitor attractions, and public transport users are likely to be most exposed to health impacts.	Yes – the ETP region as of the 2021 census had a population estimate of 942,900, made up of 51% females and 49% males[30]. Of the population an average of 64% are aged between 15-64. Belfast City is the largest council region within Northern Ireland with population of 345,400 reported in the 2021 census[31]. Of this, 67% were aged between 15-64. As of the 2021 census, Antrim and Newtownabbey council area had an estimated population of 145,700 with 64% aged 15-64, Ards and North Down Council area has 163,700 with 61% aged between 15-64, Lisburn and Castlereagh Council area had 149,100 with 63% aged 15-64 and Mid and East Antrim had 139,000 with 63% aged between 15-64. Compared to Northern Ireland with a population of 1,903,200, 63% of which were aged between 15-64.
Sensitive Group - Families with children and adolescents, (pregnant women, babies, children and adolescents)	Residential houses, community services and facilities, open space, greenspace and recreational facilities, PRoW, local footpaths and cycleways, Schools nurseries, day care centres, residential houses	Children and adolescents constitute a sensitive population group due partly to their need to be able to move around freely to and from school, open space, greenspace and recreational activities, whilst they lack the experience and judgement displayed by adults when moving around in traffic and public spaces[32] and when using public transport and related infrastructure. Hence, children and adolescents as pedestrians[33] and cyclists are at elevated risk from danger distributed by motorised transport. Furthermore, children are more sensitive than adults to air pollution[34], noise[35], odour[36] and other environmental factors and their bodies and minds are less able to deal with them. Particularly susceptible children are those from low-income[37] and/or black and minority ethnic (BME) backgrounds[38] and/or living in deprived areas.	Yes – within the population of the ETP region in the 2021 census, children between the ages of 0-14 make up an average of 18% of the population across the council areas. Belfast City Council area is made up of 18% of children aged 0-14, Antrim and Newtownabbey 19%, Ards and North Down 17%, Lisburn and Castlereagh 19% and Mid and East Antrim 17% compared to 19% in Northern Ireland. Of the 449,000 children in Northern Ireland in 2019/20, 36,000 were identified as falling below thresholds of low income and material deprivation (8%)[39]. In 2013, the proportion of children in low income families in Northern Ireland was 21.4%. The figure was the following for the relevant Local Government Districts: Antrim – 15.2%, Ards – 16.8, Ballymena – 16.6%, Belfast – 32.4%, Carrickfergus – 17.7%, Castlereagh – 12.8%, Down – 19.3%, Larne – 17.2%, Lisburn – 19.7%, Newtownabbey – 17.8% and North Down – 13.7%[40]
Sensitive Group – People who are physically or mentally disadvantaged (elderly people, people with physical	Residential houses, retirement / Care homes, community services and facilities (including health centres / clinics and hospitals), open space, PRoW and local footpaths	Elderly people constitute a sensitive group as they are more vulnerable to health conditions with different health needs than that of young and middle-aged adults. Generally, the older people are, the slower their movement and reactions and the poorer their hearing[41]. They can be more at risk from injury and may fear falls, steps or lack of suitable footpaths, lack of safe crossing points and short crossing times at safe crossing points and other aspects of the surrounding built environment[42]. This can deter them from outdoor activity, especially walking, an activity that is critical for muscle strength and reduces the risk of falls amongst other benefits. Elderly people can also feel more sensitive when using public transport[43],[44]. They also often need to seek health services. Their continuing independence at home is often dependent on having available a range of transport mode and route options.	Yes – the average percentage of the population across the council areas within the ETP region in the age range 65+ years was 18.4% in the 2021 census. Belfast City council area is made up of 15% of people aged 65+, Antrim and Newtownabbey 17%, Ards and North Down 22%, Lisburn and Castlereagh 18% and Mid and East Antrim 20% compared to 17% in Northern Ireland. With Northern Ireland equating to 100, Belfast City council area has a standardised ratio of 109.8 of people with a long-term health problem or disability (excluding mental

[30] Census 2021 infographics | Northern Ireland Statistics and Research Agency (nisra.gov.uk)
[31] Census 2021 infographics | Northern Ireland Statistics and Research Agency (nisra.gov.uk)
[32] World Health Organisation (2018, December) Adolescents: health risks and solutions (https://www.who.int/news-room/fact-sheets/detail/adolescents-health-risks-and-solutions)
[33] Child Accident Prevention Trust (2013) Child death from road traffic accidents (http://makingthelink.net/child-deaths-road-traffic-accidents)
[34] World Health Organisation (2018) Air pollution and child health: prescribing clean air (https://www.who.int/ceh/publications/air-pollution-child-health/en/)
[35] World Health Organisation Data and statistics (http://www.euro.who.int/en/health-topics/environment-and-health/noise/data-and-statistics)
[36] Agency for Toxic Substances and Disease Registry (2015, October) (https://www.atsdr.cdc.gov/odors/faqs.html)
[37] British Medical Journals, Wickham. S, Anwar. E, Barr.B, Law. C, Taylor-Robinson.D (2016, July) Poverty and child health in the UK: using evidence for action (https://adc.bmj.com/content/101/8/759)
[38] Parliamentary Office of Science and Technology (2007, January) (https://www.parliament.uk/documents/post/postpn276.pdf)
[39] ni-poverty-bulletin-202021-data-tables.XLSX (live.com)
[40] Personal tax credits: Children in low-income families local measure: 2013 snapshot as at 31 August 2013 - GOV.UK (www.gov.uk)
[41] Transport for London (2013, April) Older Pedestrians and Road Safety, Research Debrief (http://content.tfl.gov.uk/older-pedestrians-research-report.pdf)
[42] Asher. L, Aresu. M, Falaschetti. E, Minell. J (2012) Most older pedestrians are unable to cross the road in time: a cross-sectional study (Journal Link to study)
[43] Shrestha.B.P, Millonig.A, Hounsell.N.B, McDonald.M (2017) Review of Public Transport Needs of Older People in European Context (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5656732/)
[44] https://www.ageuk.org.uk/globalassets/age-uk/documents/reports-and-publications/reports-and-briefings/active-communities/rb_june15_the_future_of_transport_in_an_ageing_society.pdf (page 10)

Groups	Relevant receptor / medium	Explanation	Are these groups present within the ETP Area?
disabilities, people with other health problems or impairments)		People who are disabled and/or with physical and/or mental illnesses or impairments constitute a sensitive group as they may not be able to access many forms of transport or need special arrangements and/or support to access these[45]. They are more likely to find it difficult to walk or travel independently and can also be disadvantaged by the cost of transport. Any changes in access, such as greater travel distances, diversions or replacement services during construction would have particular impacts on this group. Chronically ill persons, for example, people with impaired lung function, can be more adversely affected by air pollution[46]. The same is true of hypersensitive individuals such as asthmatics[47]. Noise can cause hypertension and cardio-vascular problems[48]. Those who already have these conditions can be more troubled by noise than others. People with existing physical and mental illnesses, including sleep disturbance, anxiety and depression, are likely to be more sensitive to changes to their local environment.	health problems) as of the NIMDM17[49]. Antrim and Newtownabbey has a ratio of 98.0, Ards and North Down 95.8, Lisburn and Castlereagh 93.7 and Mid and East Antrim 95.9. In the Health & Social Care Trusts (HSCT) of relevance to the ETP Region diseases of the respiratory system results in the following number of deaths between Jul-Sep 2023:[50] ▪ Belfast HSCT – 80 ▪ Northern HSCT – 117 ▪ South Eastern HSCT- 77 In Northern Ireland as a whole during this period there were 414 deaths from respiratory diseases.
Sensitive Group - People who are materially disadvantaged	Residential houses, community services and facilities, local businesses, open space, greenspace and recreational facilities, PRoW, local footpaths and cycleways, public transport, bus stops	People on low incomes (living in deprived areas is a proxy measure for low income) and people without access to a car constitute a sensitive group as they are likely to walk further because they cannot afford public transport or to own a car, and their lack of transport options may limit life and work opportunities. Those on low incomes may be less able to adapt to changes in access, such as greater travel distance or alternative transport provision. People living in deprived areas tend to suffer the most from road traffic incidents (deaths and injuries), noise and air pollution, as they tend to be characterised by high traffic volume, as well as other environmental burdens such as industrial facilities. This group is generally more likely to already have reduced access to health and social care as well as reduced access to other services and amenities. This group may have increased stress levels due to the factors above. In addition, this group is more sensitive to food insecurity, which is exacerbated by transport limitations	Belfast City council area is made up of 12.4% of people living in a household whose equivalised income is below 60% of the NI median, according to NIMDM17. Antrim and Newtownabbey is made up of 10.6%, Ards and North Down 12.4%, Lisburn and Castlereagh 9.9% and Mid and East Antrim 11.6%, compared to 13.1% of Northern Ireland. Of the LGDs within the ETP Region, Belfast (32.4%) was the only one to have a higher rate of children in low income families than the Northern Ireland average. As of the NIMDM17, Belfast City council area has a 5.2% rate of household overcrowding, Antrim and Newtownabbey 2.7%, Ards and North Down 2.0%, Lisburn and Castlereagh 2.8% and Mid and East Antrim 2.4% compared to Northern Irelands rate of 3.9%. Majority of these areas are considered significantly better than Northern Ireland in terms of overcrowded housing, with the exception of Belfast.
Sensitive Group – People from black and minority ethnic backgrounds	Residents living in houses, operators and users of community land and facilities, users of open space, recreation and leisure activities, Non-motorised Users (NMU), public transport users and vehicle travellers	It is reported that some health issues and risk factors for ill health are more prevalent in minority ethnic communities, although more local data collection is required. The following have been identified as some of the difficulties encountered by minority ethnic communities in trying to access health and social care services[51]: ▪ Language difficulties; ▪ Lack of awareness and lack of appropriate information on the services available; ▪ The need for a permanent address in order to register with a General Practitioner; ▪ Fears about entitlement to health care; ▪ Difficulty in coming to grips with a health care system that is different to what exists in their country of origin; ▪ The failure of some services to meet migrants' cultural or religious needs; ▪ Institutional racism and the negative attitudes of some health care staff; and ▪ Immigration restrictions.	Yes – people from black and minority ethnic backgrounds make up 41,874 of the ETP region population[52], with 8,707 not able to speak English well or at all[53]. In the Belfast City council area, 7.05% of the population fall within the Black and Minority Ethnic Population and 1.37% of the population cannot speak English well or at all, Antrim and Newtownabbey 3.28% and 0.77%, Ards and North Down 2.3% and 0.4%. Lisburn and Castlereagh 3.93% and 0.59% and Mid and East Antrim 2.22% and 1.16% compared to Northern Ireland with 3.45% and 1.10%.

[45] House of Commons Briefing Paper (2018, October) Access to transport for disabled people, Number CBP 601 (https://researchbriefings.files.parliament.uk/documents/SN00601/SN00601.pdf)
[46] DEFRA UK AIR, Air Information Resource, Effects of air pollution (https://uk-air.defra.gov.uk/air-pollution/effects)
[47] Asthma UK (https://www.asthma.org.uk/advice/triggers/pollution/)
[48] Munzel T, Schmidt FP, Steven S, Herzog J, Daiber A, Sorensen M. Environmental Noise and the Cardiovascular System. J Am Coll Cardiol. 2018;71(6):688-97 (Extract from Journal of the American College of Cardiology 2018; http://www.intuition-physician.com/wp-content/uploads/2018/05/Evironmental-Noise-and-Cardiovascular-Health.pdf)
[49] NIMDM17 Tables - LGD2014.xls (live.com)
[50] Registrar General Quarterly Tables, Quarter 3 2023 | Northern Ireland Statistics and Research Agency (nisra.gov.uk)
[51] Ethnic Minority Communities - NICHI Health Alliance - Northern Ireland (healthallianceni.com)
[52] census-2021-ms-b01.xlsx (live.com)
[53] census-2021-ms-b14.xlsx (live.com)

7.7 Population and Equalities

As discussed in Chapter 2, in accordance with the Equality Act (2010) Act, EqIA considers there to be nine relevant 'protected characteristics' as follows:

EqIA in Northern Ireland considers nine equality categories as follows:

- Religious Belief
- Political Opinion
- Racial Group
- Age
- Marital Status
- Sexual Orientation
- Gender
- Disability
- Dependency

The local Government Equality Duty (as set out in the Equality Act 2010) sets out a clear expectation that each year data on the nine protected character groups is collected by local authorities and published. An overview of key indicators relating to Protected Characteristics in the ETP Area is provided in Table 7-3 below.

Table 7-3 - Overview of Protected Characteristics in ETP Area[54]

Protected Characteristic	ETP Area presence				
	Belfast	**Antrim and Newtownabbey**	**Ards and North Down**	**Mid and East Antrim**	**Lisburn and Castlereagh**
Age	**Northern Ireland Total Population: 1,903,200 (up 5% since 2011)** Population aged 0-14 years: average 19%, Population aged 15-39 years: average 31%, Population aged 40-64 years: average 32% and Population aged 65 years and over: average 17%				
	Total population: 345,400 (up 3% since 2011) Population aged 0-14 years: 18% (Northern Irish average 19%) Population aged 15-39 years: 37% (Northern Irish average 31%) Population aged 40-64 years: 30% (Northern Irish average 32%) Population aged 65 years and over: 15% (Northern Irish average 17%)	**Total population: 145,700 (up 5% since 2011)** Population aged 0-14 years: 19% (Northern Irish average 19%) Population aged 15-39 years: 31% (Northern Irish average 31%) Population aged 40-64 years: 33% (Northern Irish average 32%) Population aged 65 years and over: 17%) (Northern Irish average 17%)	**Total population: 163,700 (up 4% since 2011)** Population aged 0-14 years: 17% (Northern Irish average 19%) Population aged 15-39 years: 27% (Northern Irish average 31%) Population aged 40-64 years: 34% (Northern Irish average 32%) Population aged 65 years and over: 22%) (Northern Irish average 17%)	**Total population: 139,000 (up 3% since 2011)** Population aged 0-14 years: 17% (Northern Irish average 19%) Population aged 15-39 years: 29% (Northern Irish average 31%) Population aged 40-64 years: 34% (Northern Irish average 32%) Population aged 65 years and over: 20%) (Northern Irish average 17%)	**Total population: 149,100 (up 11% since 2011)** Population aged 0-14 years: 19% (Northern Irish average 19%) Population aged 15-39 years: 30% (Northern Irish average 31%) Population aged 40-64 years: 33% (Northern Irish average 32%) Population aged 65 years and over: 18%) (Northern Irish average 17%)
Disability	In a Labour Force Survey, 21.7% of respondents aged 16-64 in Northern Ireland (Apr-Jun 2017) reported a long-term illness and a disability. In the UK overall the figure was 17.4%. The definition of disability covers people who report a physical or mental health condition or illnesses lasting or expected to last 12 months or more where this reduces their ability to carry out day-to-day activities.[55] **Northern Ireland** 463,000 people (24%) have their day-to-day activities limited by a health problem or disability.				
	Belfast 92,300 people (27%) have their day-to-day activities limited by a health problem or disability.	**Antrim and Newtownabbey** 34,800 people (24%) have their day-to-day activities limited by a health problem or disability.	**Ards and North Down** 41,300 people (25%) have their day-to-day activities limited by a health problem or disability.	**Mid and East Antrim** 34,800 people (25%) have their day-to-day activities limited by a health problem or disability.	**Lisburn and Castlereagh** 32,400 people (22%) have their day-to-day activities limited by a health problem or disability.
Gender	Based on the 2021 Census, the ETP region has a higher ratio of females than males with 51% females and 49% males. In Northern Ireland as a whole males outnumber females each year from 0 to 29 and females outnumber males from age 30 upwards[56].				
	Belfast ratio of females (51%) and males (49%)	**Antrim and Newtownabbey** ratio of females (51%) and males (49%)	**Ards and North Down** ratio of females (51%) and males (49%)	**Mid and East Antrim** ratio of males (51%) and males (49%)	**Lisburn and Castlereagh** ratio of males (51%) and males (49%)
Gender reassignment	Transgender status applies to people “whose gender identity and/or gender expression differs from their birth sex”. Gender Identity Research and Education Society (GIRES) is a UK wide organisation whose purpose is to improve the lives of trans and gender non-conforming people of all ages, including those who are non-binary and non-gender. They work in collaboration to empower and give a voice to trans and gender non-conforming individuals and their families. GIRES estimate 1% (650,000) of the UK population experience some degree of gender non-conformity. There are limited official statistics regarding gender non- conformity or gender reassignment in NI. The Northern Ireland Life and Times Survey (NILT) run by Queen’s and Ulster Universities found that over the last three years (2016-2018) less than five persons in a total sample of 3,600 survey respondents have identified as transgender (or around 0.1%)[57]. GIRES also charts the growth rates of those seeking medical support in relation to transitioning. This has increased by 20% per annum among adults (who currently account for the majority cases) and 50% per annum among young people with about 26,000 individuals seeking medical care across the UK.				
Marriage and Civil Partnership	In 2022 there were 8,564 marriages in Northern Ireland. This was significantly more than the number in 2020 due to the Covid-19 restrictions, and 11.3% more than 20 years previous in 2002. This figure includes both opposite and same sex marriages as same-sex marriage has been legal since 13 January 2020. Of the marriages 1.4% were male marriages, 1.8% female marriages and 96.9% opposite-sex marriages. There were 43 civil partnerships registered in 2022 which was six more than in 2021. Of the 43, nine were male partnerships (20.9%), 4 female partnerships (9.3%) and 30 opposite-sex partnerships (69.8%). There were 5,749 religious marriages in 2022. Around 2 in every 3 religious marriages (64.4%) were held in a religious building. Over half of all civil marriages (55.6 %) were held in a registry office.[58]				

[54] 2021 Census Census 2021 infographics | Northern Ireland Statistics and Research Agency (nisra.gov.uk)
[55] Health | Northern Ireland Statistics and Research Agency (nisra.gov.uk)
[56] Population estimates by age and sex, March 2021 | Northern Ireland Statistics and Research Agency (nisra.gov.uk)
[57] Research on measuring gender identity (nisra.gov.uk)
[58] Annual Report of the Registrar General 2021 (nisra.gov.uk)

<table>
<tr><th>Protected Characteristic</th><th colspan="5">ETP Area presence</th></tr>
<tr><th></th><th>Belfast</th><th>Antrim and Newtownabbey</th><th>Ards and North Down</th><th>Mid and East Antrim</th><th>Lisburn and Castlereagh</th></tr>
<tr><td>Pregnancy and maternity</td><td colspan="5">The number of live births per 1,000 population in 2017 was 12.3 in Northern Ireland. This was higher than the UK as a whole at 11.4 per 1,1000. There were 23,177 registered births to Northern Ireland residents in 2017, 102 of these were still births.[59]
In Northern Ireland in 2017/18, births to teenage mothers represented almost 3% of all births. Following a year on year increase in the proportion of births to mothers aged 40 and over, the percentage started to decrease in 2016/17 with a further decrease in 2017/18 (3.7%). Across Northern Ireland Court District Electoral Area, which is within Belfast City Council, had the highest proportion of teenage mothers at 6.5%.[60]
In 2018 in Northern Ireland 61.2% of mothers attempted breastfeeding. In 2018, 44.8% of mothers aged 20-24 years attempted to breastfeed compared to 66.4% of mothers aged 30-34 years. Young mothers can often lack access to key sources of information such as antenatal classes and peer support programmes, friends with children, family and other support networks which enable breastfeeding. There is also an association between deprivation and breast feeding with 46.8% of mothers living in the 20% most deprived Super Output Areas (SOAs) in Northern Ireland were reported as having attempted to breastfeed during the postnatal stay compared to 74.9% of those from the 20% least deprived SOAs. Of the council areas within the ETP area, Lisburn and Castlereagh as the highest rate of breastfeeding at discharge from hospital with 58.3%[61].</td></tr>
<tr><td>Religion or belief</td><td colspan="5">From the Census 2021, approximately 926,155 of the ETP region residents gave an indication of their religious faith[62]. There was a decrease in the population reporting as ‘Christian’ from 77.5% in 2011 to 72.6% in 2021, which represents decrease of 4.9 percentage points. This was mainly due to a rise in religious affiliation as those residents responding with ‘no religion’ increased by 9.4 percentage points to 23.8%, from 14.4%. The number of residents reporting as other religion was 1.9% in the ETP region. Northern Ireland - Catholic – 42%, Presbyterian – 17%, Church of Ireland – 12%, Methodist – 2%, Other Christian – 7%, Other – 1% and No religion/Not stated – 19%</td></tr>
<tr><td></td><td>Belfast
Catholic – 43%
Presbyterian – 12%
Church of Ireland – 8%
Methodist - 3%
Other Christian – 6%
Other – 3%
No religion/Not stated – 2</td><td>Antrim and Newtownabbey
Catholic – 28%
Presbyterian – 24%
Church of Ireland – 10%
Methodist – 4%
Other Christian – 8%
Other – 1%
No religion/Not stated – 24%</td><td>Ards and North Down
Catholic – 11%
Presbyterian – 29%
Church of Ireland – 14%
Methodist – 4%
Other Christian – 10%
Other – 1%
No religion/Not stated – 32%</td><td>Mid and East Antrim
Catholic – 17%
Presbyterian – 32%
Church of Ireland – 11%
Methodist - 3%
Other Christian – 11%
Other – 1%
No religion/Not stated – 24%</td><td>Lisburn and Castlereagh
Catholic – 24%
Presbyterian – 19%
Church of Ireland – 16%
Methodist – 4%
Other Christian – 10%
Other – 2%
No religion/Not stated – 25%</td></tr>
<tr><td>Race</td><td colspan="5">The overwhelming majority of the ETP population in 2021 identified themselves as White with 900,967 people (95.6%).
Within this region, 360,883 (38.3%) identify as British only, 189,968 (20.1%) Irish only, 182,135 (19.3%) Northern Irish only, 6,730 (0.7%) British and Irish only, 97,504 (10.3%) British and Northern Irish only, 14,753 (1.6%) Irish and Northern Irish only and 18,443 (2.0%) British, Irish and Northern Irish only[63].
Northern Ireland
Ethnic Group - White – 97% and Other - 3%
National Identity - British Only – 32%, Irish Only – 29%, Northern Irish Only – 20% and Other - 19%</td></tr>
<tr><td></td><td>Belfast
Ethnic Group
▪ White – 93%
▪ Other – 7%
National Identity
▪ British Only – 27%
▪ Irish Only – 35%
▪ Northern Irish Only – 17%
▪ Other – 21%</td><td>Antrim and Newtownabbey
Ethnic Group
▪ White – 97%
▪ Other - 3%
National Identity
▪ British Only – 41%
▪ Irish Only – 17%
▪ Northern Irish Only – 21%
▪ Other – 21%</td><td>Ards and North Down
Ethnic Group
▪ White – 98%
▪ Other – 2%
National Identity
▪ British Only – 48%
▪ Irish Only – 6%
▪ Northern Irish Only – 22%
▪ Other – 25%</td><td>Mid and East Antrim
Ethnic Group
▪ White – 98%
▪ Other - 2%
National Identity
▪ British Only – 49%
▪ Irish Only – 8%
▪ Northern Irish Only – 20%
▪ Other - 23%</td><td>Lisburn and Castlereagh
Ethnic Group
▪ White – 96%
▪ Other – 4%
National Identity
▪ British Only - 41%
▪ Irish Only – 16%
▪ Northern Irish Only – 21%
▪ Other - 22%</td></tr>
</table>

[59] RUAG Childrens Health in NI - 2017-18 - Dec 2018.pdf (hscni.net)
[60] RUAG Childrens Health in NI - 2017-18 - Dec 2018.pdf (hscni.net)
[61] Hi Brief Breastfeeding February 2020 FINAL_0.pdf (hscni.net)
[62] Census 2021 main statistics religion tables | Northern Ireland Statistics and Research Agency (nisra.gov.uk)
[63] census-2021-ms-b16.xlsx (live.com)

Protected Characteristic	ETP Area presence				
	Belfast	**Antrim and Newtownabbey**	**Ards and North Down**	**Mid and East Antrim**	**Lisburn and Castlereagh**
Sexual Orientation	This relates to whether a person's sexual attraction is towards their own gender, the opposite gender, or to both genders. Currently there is no best source of information on the numbers of Lesbian, Gay or Bisexual (LGB) people living in the local population. The 2021 Census offered a picture of the number of couples living in same sex civil partnerships, but this is an incomplete picture with only approximately 9 of the 37 registered same sex[64]. ONS have indicated that some 1.2% of the household population in Northern Ireland identify as LGB[65]. ONS published a 2022 estimate of the UK populations sexual identity based on age, gender and ethnicity[66].				

[64] Annual Report of the Registrar General 2021 (nisra.gov.uk)
[65] LGBT Policy | Department for Communities (communities-ni.gov.uk)
[66] Sexual orientation, UK - Office for National Statistics (ons.gov.uk)

7.8 Rural Needs

The Rural Needs Act (Northern Ireland) 2016 provides a statutory duty on public authorities to have due regard to rural needs when developing, adopting, implementing or revising policies, strategies and plans, and when designing and delivering public services. A Rural Needs Impact Assessment (RNIA) is the process recommended to assist public authorities in fulfilling the requirement to consider rural needs. For the purposes of this assessment process, rural areas have been defined as having settlements of less than 5,000 people, alongside open countryside.

7.8.1 Defining the activity (Screening)

Within the ETP area, alongside large urban centres such as Belfast and Lisburn, there are also a large number of settlements / areas with a population of less than 5,000 people, as well as large areas of open countryside.

A key aspect of life in rural areas of Northern Ireland that accessing key services such as health facilities is, in general, more difficult for the rural than the urban population, particularly for those who are further from major urban areas. The ETP offers the potential to affect the needs of rural communities, both positively and negatively, by proposing approaches to transport that may have implications for the rural themes identified. For example, interventions proposed under ETP could help improve transport provision and connectivity and help ensure access to urban areas and other centres and facilities for employment, commerce, education and health services. The ETP may also result in interventions that would help support agricultural and other land based rural businesses, perhaps by enhancing access to markets. However, the ETP could also result in interventions that have adverse implications for the rural environment, result in losses of agricultural land or result in developments that do not respect the character of the countryside.

As such, it is shown that development of the ETP meets the requirement for a Rural Needs Assessment.

7.8.2 Overview of Baseline

Around 670,000 people (36%) of the NI population live in a rural area. Between 2001 and 2018, rural populations grew by 16% in comparison to 6% in urban areas[67]. Population growth in rural areas from 2001-20 outstripped that in urban areas by a factor of almost 3 to 1 (20% to 7%). The average commuting distance per day in 2021 for rural populations was 11.7 miles, compared to 5.8 miles for urban populations. Total miles travelled per person per year for rural people was 1,261 miles in 2021, whereas urban people travelled a total of 646 miles per person per year. Other purposes such as business recorded an average of 18.9 miles and 12.5 miles per day, and total miles of 543 and 330 per person per year for rural and urban populations respectively. In 2023, 80% of the population were reported to mainly work separate from home, indicating they travel to work. The most popular method of travel to work in 2021 was by private car/van at 90%, with 7% walking, 2% other (including taxis, motorbikes etc), 1% train, 0% by bus and 0% cycling. Similar trends are recorded in urban areas, with 82% using private car/vans, 10% walking, 3% using other, 3% using the bus, and 1% using the train and 1% cycling[68].

Public transport access also varies locationally, with only 17% of the rural population being a three minute or less walk to the nearest bust stop, compared to 38% of the urban population as reported in 2021. Approximately 8% of the rural population in 2021 are 44 minutes or longer walking distance to the nearest bus stop, and 9% 27-43 minutes, compared to 0% for both times in urban locations. In rural locations, 18% reported a bus at least once an hour and 12% once a day or less in comparison to 66% and 1% in urban locations[68]. Accessing key services is

[67] DAERA (2020) *Rural Policy Framework for Northern Ireland.* Available: Rural Policy Framework for Northern Ireland - Full Version

[68] DAERA (2024) *Key Rural Issues, Northern Ireland 2024*. Available: Key Rural Issues | Department of Agriculture, Environment and Rural Affairs

therefore more difficult for the rural than the urban population. In some rural areas, services are simply inaccessible without private transport, and journey times to key services by car are on average twice as long for rural dwellers as for those living in towns and cities[67].

In 2024, although more than half (58%) of NI businesses were in rural areas, rural businesses accounted for less than a quarter (21%) of employees. Rural workers (90%) were also much more likely to use their own transport to commute than those from urban areas (82%), though this gap has narrowed.

Rural dwellers wait longer for emergency service response than their urban counterparts, with ambulance waiting times continuing to increase in rural areas. Similar proportions of urban and rural households are in relative poverty (19% urban, 16% rural) or absolute poverty (16% urban, 11% rural).

8. ISA Framework

8.1 Introduction

In order to follow good practice in sustainability appraisal, a number of bespoke sustainability objectives have been developed for the ISA. These ISA objectives reflect the sustainability objectives the ETP should be aiming to achieve and the areas of sustainability that the ETP is expected to impact upon or have an influence on. The expectation is that even though some objectives may not be within the ETP's direct remit, the ETP should be able to influence the direction of change through setting out clear policies and approaches which could inform the work of DfI's partners and other stakeholders.

8.2 Assessment Framework

The ISA Framework is a key component in completing the ISA, through providing a set of ISA objectives against which the performance of the ETP can be predicted and evaluated. The ISA objectives for the ETP have been worded so that they reflect one single desired direction of change for the theme concerned and do not overlap with other objectives. They include both externally imposed social, environmental and economic objectives as well as others devised specifically in relation to the context of the ETP. It should be noted that, from an assessment perspective, all ISA objectives are considered equally important to be achieved by the ETP and that there is no inherent prioritisation of objectives. The ultimate aim is for the ETP to achieve net benefits across the three dimensions of sustainability (environmental, social and economic dimensions).

In order to assess how each aspect of the ETP performs against each of the ISA objectives, a series of decision-making criteria / assessment aid questions have been developed. The decision-making criteria are a way of guiding the assessment. They are not the only considerations to be taken into account when determining likely effects arising from the ETP, as it is unlikely that every relevant question can be known at this stage. But they do provide a useful starting point and a transparent structure to help demonstrate how the assessment of the effects arising from the implementation of the ETP will be undertaken. As the ISA progresses, they will also help in the development of a set of indicators to be included in the monitoring programme at a later stage of the assessment process.

An ISA Framework of 16 objectives and associated decision-making / assessment aid questions has been drawn up, developed through the analysis of baseline information and identification of key sustainability issues and opportunities, as well as the review of relevant plans, policies and legislation. In addition, assessment aid questions have been identified to substantiate the proposed ISA Objectives and HIA and EqIA sub-objectives. This ISA Framework has been consulted upon with the relevant statutory authority (DAERA) and updated to reflect consultation comments made.

The ISA objectives and associated Assessment Aid Questions are presented in Table 8-1. It is noted that Objective 5 is informed by the findings of the HRA Report. Table 8-2 and Table 8-3 show proposed EqIA and HIA sub-objectives and decision-making questions, respectively. Note that the application of the Framework in relation to HIA and EqIA Sub-Objectives will be considered 'in the round' and a judgement made as to how well that aspect of the ETP being considered performs. This will result in a summary score that will be reported in the main ISA Framework Assessment against the related ISA objective, with appropriate commentary – see below for detail of the application of the ISA Framework.

It is also to be noted that there is a certain degree of cross-over of Assessment Aid Questions within the ISA Framework i.e. the same question is asked across a number of Objectives. The rationale for this is that while the question may be the same, it is considered from a differing viewpoint and within a different context. This is the role of the Assessment Aid Questions i.e. to help consider all aspects of an Objective in arriving at an assessment of the performance.

Table 8-1 - ISA Objectives

No.	ISA Objective	Assessment aid questions
Environment		
1.	Protect and improve air quality	Will the ETP… ▪ Reduce emissions of pollutants from transport? ▪ Improve air quality within AQMAs? ▪ Promote the use of low emission or zero emissions vehicles, including through promotion of associated infrastructure? ▪ Reduce traffic growth and congestion and promote safer and more sustainable transport patterns across the ETP Area? ▪ Enable walking and cycling and improve infrastructure and its safety and accessibility for these forms of travel? ▪ Promote enhancements to green infrastructure networks to facilitate increased absorption and dissipation of nitrogen dioxide and other pollutants? ▪ Contribute to the Air Quality Objectives or other local air quality initiatives and avoid the need for new AQMA's in either the ETP Area or the surrounding areas?
2.	Reduce carbon dioxide (CO2) emissions from transport and contribute to meeting net zero carbon targets	Will the ETP… ▪ Reduce the need to travel? ▪ Promote and enable the use of sustainable forms of transport and reduce car use? ▪ Promote better coordination and integration of different transport modes? ▪ Encourage greater carbon efficiency in the movement of goods and people? ▪ Encourage use of new low or zero carbon transport technologies? ▪ Encourage use of the transport estate for low carbon energy generation? ▪ Identify opportunities to enhance carbon removal through promoting new and enhancing existing green infrastructure? ▪ Identify initiatives aiming to reduce traffic speed in residential areas without increasing carbon dioxide emissions? ▪ Encourage greater and more robust digital connectivity to allow increased uptake of home working, home learning, online commerce and online health services? ▪ Support provision of delivery consolidation centres and encourage goods delivery mode-shift? ▪ Reduce embodied and operational carbon through the design of new transport infrastructure? ▪ Encourage use of Carbon calculators / low carbon construction techniques in construction phase?
3	Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	Will the ETP… ▪ Minimise the risk of flooding through design and implementation of SuDS and upstream storage NFM when possible? ▪ Minimise the risk of flooding by avoiding areas of flood risk / flood plain when possible? ▪ Ensure provision of appropriate compensatory measures are in place when there is no other option to land take from areas of flood plain? ▪ Lead to development that is flood resilient over its lifetime, taking into account the effects of climate change, without increasing the flood risk elsewhere and identifying opportunities to reduce the risk overall? ▪ Minimise the risk of disruption by avoiding areas of land instability? ▪ Encourage design for successful adaptation (including through green and blue infrastructure) to the predicted changes in weather conditions and frequency of extreme events (freezing, heat waves, intense storms), from a changing climate? ▪ Lead to development that is resilient to risk of coastal change and not have an unacceptable impact on coastal change?; ▪ Result in inappropriate development in areas of highest vulnerability to coastal change? ▪ Result in development that is safe over its lifetime and not cause or exacerbate coastal erosion risk elsewhere?
4	Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	Will the ETP… ▪ Lead to the direct physical loss of habitat and populations of protected/scarce species? ▪ Avoid indirect damage or disturbance to habitat and populations of protected/scarce species ▪ Protect the integrity of designated sites including enhancement for, ASSIs, Nature Reserves, Marine Conservation Zones, including those of potential or candidate designation? ▪ Manage highway operational and maintenance pressures on designated sites and valued habitat and populations of protected/scarce species on locally designated sites? ▪ Provide opportunities to improve / enhance and where possible connect sites designated for nature conservation? ▪ Protect the integrity of Ancient and mature Woodlands / aged or trees subject to Tree Preservation Orders? ▪ Protect and enhance the ETP Area's ecological networks (the Nature Recovery Network)? ▪ Protect and enhance priority habitats, and the habitat of priority species (including NI Priority species)? ▪ Protect areas designated as Parks and Greenspace?

No.	ISA Objective	Assessment aid questions
		▪ Protect and enhance green infrastructure and avoid severance of habitats links? ▪ Minimise habitat fragmentation and severance of species migration and commuter routes? ▪ Promote new habitat creation or restoration and linkages with existing habitats? ▪ Provide opportunities to create or restore habitat to delivering net gain for biodiversity?
5	Protect and enhance sites designated internationally for nature conservation purposes (HRA objective)	Will the ETP… ▪ Protect (directly or indirectly) International sites (SAC, SPA, Ramsar, including those of potential / candidate designation) identified as part of the HRA screening process? ▪ Take on board the HRA findings and recommendations? ▪ Support continued improvements to the status of the internationally designated nature conservation sites (and potential / candidate sites) present?
6	Protect, enhance and promote geodiversity	Will the ETP… ▪ Protect or enhance ASSIs designated for their geological interest? ▪ Promote or enhance accessibility to the region's designated sites of geological interest? ▪ Seek to protect and avoid degradation of areas of geodiversity importance such as potential Antrim Geopark?
7	Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings	Will the ETP… ▪ Protect, conserve or enhance the integrity of designated heritage assets and their settings (such as Scheduled Monuments, Listed Buildings and structures, Defence Heritage sites, Parks, Gardens and Demesnes, and Conservation Areas)? ▪ Affect the significance of non-designated heritage assets (e.g. locally important buildings, industrial heritage and archaeological remains, including newly discovered heritage assets and as applicable those on Heritage at Risk registers) and their settings? ▪ Lead to harm to the significance of heritage assets, for example from the generation of noise, pollutants and visual intrusion? ▪ Maintain or improve access to heritage assets? ▪ Promote transport schemes which tackle traffic congestion in the regions historic villages, towns and cities? ▪ Maintain or allow opportunities to be taken to improve the interpretation, understanding and appreciation of the significance of heritage assets? ▪ Provide opportunity to help identify previously unknown heritage assets to help better understand and protect them? ▪ Enable sympathetic and sustainable re-use of heritage assets?
8	Protect and enhance the character and quality of landscapes, seascapes, townscapes and visual amenity	Will the ETP… ▪ Protect or enhance nationally and locally designated landscapes and townscapes and their settings? ▪ Conserve, protect and enhance natural environmental assets (e.g. seascapes, parks and green spaces, woodland / forests etc)? ▪ Be consistent with the management plans, objectives and other guidance of relevant AONBs? ▪ Promote / protect local and long distance walking routes such as the Ulster Way? ▪ Affect the intrinsic character or setting of seascapes or local landscapes or townscapes through changes to views or indirectly through changes to tranquillity, light pollution and traffic?
9	Protect and enhance the water environment	Will the ETP… ▪ Protect ground and surface water quality in line with Water Framework Directive (WFD) requirements? ▪ Protect coastal and transitional water quality in line with WFD and UK Marine Strategy requirements? ▪ Safeguard the availability of water resources (surface and groundwater)? ▪ Protect and enhance green infrastructure contributing to improvements in the quality of surface water run-off? ▪ Promote where possible the minimisation of the use of impermeable hard surfacing and promote the use of SuDS and upstream storage (Natural Flood Management - NFM)? ▪ Provide opportunities to improve Green / blue infrastructure? ▪ Provide opportunities to improve WFD water body status? ▪ Provide opportunities to improve the quality of coastal and marine waters / work toward Good Environmental Status? ▪ Promote use of SuDS in appropriate places, recognising that these may not be suitable for areas that are contaminated?
10	Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	Will the ETP… ▪ Assist in facilitating the re-use of previously developed land? ▪ Seek to remediate contaminated land? ▪ Avoid permanent (irreversible) loss of the most highly productive agricultural soils? ▪ Avoid transport-related infrastructure development upon good quality agricultural land?

No.	ISA Objective	Assessment aid questions
		▪ Ensure the protection of soil resources and reduce soil quality degradation during transport-related infrastructure construction activities? ▪ Avoid the sterilization of viable mineral resources?
11	Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated	Will the ETP… ▪ Seek to reduce the consumption of primary, natural resources through encouraging the use of recycled and / or secondary materials with transport-related infrastructure projects? ▪ Encourage resource efficiency during the whole project life cycle of transport-related infrastructure projects i.e. from concept through design and operation to decommissioning? ▪ Seek to reduce fuel use through fuel efficiency measures and a shift towards more sustainable forms of transport in the delivery of transport-related infrastructure projects; ▪ Improve accessibility to the regions waste management infrastructure, particularly those facilities that support recycling, composting and material recovery; ▪ Promote the use of local suppliers that use sustainably-sourced and locally produced materials with transport-related infrastructure projects? ▪ Promote sustainable waste management practices with transport-related infrastructure projects in line with the waste hierarchy? ▪ Help promote a Circular Economy?
Economic		
12	Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all	Will the ETP… ▪ Support economic activities in areas of high growth pressures? ▪ Support economic activities in rural areas? ▪ Support improved availability and accessibility to good quality education, training and employment opportunities, particularly in rural and high unemployment areas? ▪ Contribute to establishing an effective transport network that increases investment? ▪ Reduce congestion and improve / enhance journey time reliability on the highways and rail network? ▪ Improve access to employment and education opportunities for all those who can contribute to the workforce? ▪ Support the development of transport solutions which integrate with digitally smart networks and promote access to these networks?
13	Support the wider coordination of land use, energy planning and transport planning across the Eastern Transport Area and into surrounding regions	Will the ETP… ▪ Support the development of new compact, higher density mixed use development that reduces the need to travel by private car, coordinated with public transport and active travel / walking and cycling infrastructure and results in shortened trip distances, particularly for employment and education purposes? ▪ Support developments that increase access to the transport network for all members of society? ▪ Support digital integration to optimise use of energy systems and provide integrated real time transport information to inform decisions ▪ Support housing and employment development in areas that are or will be served by rail transport or other forms of public transport? ▪ Minimise cumulative and synergistic effects resulting from the in-combination effects of transport proposals and new development areas?
Social		
14	Improve health and well-being for all citizens and reduce inequalities in health (HIA specific objective)	Will the ETP... ▪ Promote health and well-being, including of vulnerable groups (children and adolescents; older people; disabled people and people with long term health conditions; low-income groups and communities with high levels of deprivation; minority ethnic groups; cyclists, pedestrians, commuters by public transport, drivers) and of the wider population (residents, workers, commuters, tourists and visitors)? ▪ Improve safety of the transport network including on rural routes? ▪ Improve personal security on public transport accessing key services, facilities and amenities? ▪ Lead to a reduced crime rate and a reduction in anti-social behaviour? ▪ Reduce the risk of being injured or killed on the road? ▪ Promote initiatives that enhance safety and personal security for all, without fear or hindrance from crime and disorder? ▪ Promote the application of 'Secured by Design' principles aimed at designing out crime and reducing the fear or perception of crime in transport development schemes? ▪ Contribute to improvements to levels of natural surveillance in the public realm to create a more welcoming environment for travel, physical activity, and accessing key services, facilities and amenities?
15	Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society (EqIA specific objective)	Will the ETP... ▪ Promote greater equality of opportunity to the varying age groups of residents (such as the older population and younger travellers), disabled people, different nationalities and ethnic groups, different religious groups, low income and unemployed people, different sex and sexual orientation groups?

Table 8-2 - HIA Objectives

HIA Objective	HIA sub-objectives	Assessment aid questions
Improve health and well-being for all citizens and reduce inequalities in health	Improve accessibility to employment, educational, health and leisure services and facilities and amenities for all	*Will the ETP...* ▪ Ensure that (new and existing) developments are accessible (particularly on foot, by cycling or public transport) to health and care services, education, employment and other essential services, particularly for the most vulnerable groups? ▪ Promote and enable measures to help all residents to adopt healthy lifestyles (e.g. active travel through walking and cycling)? ▪ Promote accessibility (particularly on foot or by cycling or public transport) to open space and recreational activities (e.g. playing fields, sports facilities, footpaths etc), particularly for vulnerable groups? ▪ Protect and enhance green infrastructure, a network of linked, multifunctional green spaces in and around the area's towns and cities, thus creating new or improved public green space? ▪ Support publicity or awareness-raising campaigns and/or education and practical offers to promote active modes of transport or physical activity? ▪ Provide overall accessibility improvements that improve the quality of life of users and therefore benefits health of residents? ▪ Improve connectivity of rural areas to employment, educational, health and leisure facilities and amenities?
	Improve affordability of transport	*Will the ETP...* ▪ Provide affordable transport options for all, including rural areas, to ensure accessibility to vital health services, work, education, social / leisure activities? ▪ Provide affordable transport options for all, including rural areas, to ensure accessibility to key facilities such as open spaces, employment locations etc.? ▪ Promote use of technology to reduce transport costs for users i.e. MaaS, integrated ticketing and smart cards? ▪ Provide transport services that provide appropriate and/or statutory fare structures (i.e. concessionary fares on public transport services) to ensure the most vulnerable groups in terms of health (children, older), can afford to use transport options to access healthcare and other key facilities?
	Improve safety of the transport network (including roads) and reduce the number of accidents and other incidents	*Will the ETP...* ▪ Provide initiatives that enhance road safety and therefore reduce the number of accidents, particularly for vulnerable users– children, older people, disabled people, and those in deprived areas?
	Reduce severance	*Will the ETP...* ▪ Improve access to essential facilities such as healthcare services to reduce any existing severance issues? ▪ Reduce the physical and perceived impact of the transport system on the local environment? (particularly for the most vulnerable population in terms of severance and health – including older and disabled people)
	Improve connections between and within communities	*Will the ETP...* ▪ Provide opportunities to travel within and between communities? ▪ Provide increased opportunities to improve social interactions?
	Reduce air, noise, odour and light pollution from transport	*Will the ETP...* ▪ Aim to minimise air, noise, odour and light pollution during construction and operation? ▪ Reduce transport impact on air quality and noise, particularly around vulnerable users such as children, older people and deprived areas? ▪ Promote practices, equipment and materials which reduce vibration and air, noise, odour and light pollution to assist in improving health levels?
	Improve access to active travel modes?	*Will the ETP...* ▪ Increase opportunities to access active travel modes that may help to improve health outcomes?
	Improve access to public transport	*Will the ETP...* ▪ Increase opportunities for all members of society to access public transport options, particularly those more vulnerable or isolated members of the community, as well as those who may have difficulty using active travel modes?
	Improve actual and perceived safety and security issues	*Will the ETP…* ▪ Promote the application of 'Secured by Design' in transport development schemes? ▪ Contribute to improvements of public realm and levels of natural surveillance to create a more welcoming environment for travel, physical activity, and accessing key facilities? ▪ Promote community safety? ▪ Reduce crime and fear of crime?

Table 8-3 - EqIA Objectives

EqIA Objective	EqIA sub-objectives	Assessment aid questions
Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society	Improve accessibility to services, facilities and amenities for all, in particular by active travel modes	*Will the ETP...* ▪ Improve access to essential facilities, including employment, healthcare and education, particularly for those in the most deprived areas (20% most deprived in Northern Ireland), older and disabled people? ▪ Improve public realm and overall environment including green infrastructure in the most deprived areas (20% most deprived in Northern Ireland)? ▪ Improve walking, cycling and public transport measures in the most deprived areas (20% most deprived in Northern Ireland)? ▪ Provide transport services/ initiatives that are accessible and affordable for all, including those with a physical or learning disability and those with limited mobility? (this includes physical access to services and provision of accessible information on transport service) ▪ Provide transport services that are welcoming for all groups of society to increase availability of travel options? ▪ Provide initiatives that improve perceptions of transport, and therefore increase range of travel options available? ▪ Take due regard of requirements for travel by disabled and mobility impaired people? ▪ Provide initiatives to encourage access to and uptake of Public Transport for those whose first language may not be English?
	Improve affordability of transport	*Will the ETP...* ▪ Provide transport services that are financially accessible for all, specifically those in the most income deprived areas or those on limited incomes? ▪ Provide transport services or initiatives that improve the affordability of travel options in the area, specifically the most deprived areas and vulnerable users? ▪ Provide transport services that provide appropriate and/or statutory fare structures for vulnerable users (i.e. concessionary fares on public transport services)? ▪ Promote use of technology to reduce transport costs for users i.e. MaaS, integrated ticketing and smart cards?
	Improve safety of the transport network (including roads) and reduce the number of accidents and other incidents	*Will the ETP...* ▪ Encourage the provision of safe paths for walking and cycling? ▪ Ensure initiatives aiming to reduce traffic speeds in residential areas and promote safer driving? ▪ Promote road safety awareness for all, with particular emphasis on more vulnerable members of society such as children and young people and those with disabilities? ▪ Reduce the total killed and seriously injured in traffic accidents, particularly for vulnerable users in terms of accidents - children, young males, older people and those from deprived areas? ▪ Improve the safety of the rural road network? ▪ Reduce the total slight casualties? ▪ Improve the safety of vulnerable road users such as pedestrians, motorcyclists and cyclists?
	Improve provision of public transport in rural areas or to those areas experiencing constraint in public transport provision	*Will the ETP...* ▪ Increase provision of public transport (including frequency of service and extent of routes) in areas which have been more constrained in level of provision?
	Reduce severance	*Will the ETP...* ▪ Improve access to essential facilities to reduce any existing severance issues? ▪ Improve accessibility between and within communities? ▪ Improve access to information for all users to promote a range of travel options, including active travel, available for all? ▪ Reduce the physical and perceived impact of the transport system on the local environment? (particularly for the most vulnerable population in terms of severance – including older children and disabled people)
	Reduce air, noise, odour and light pollution from transport	*Will the ETP...* ▪ Improve impact of transport on the local environment to create more welcoming areas for travel? ▪ Provide transport options that improve / do not worsen air and noise pollution levels, particularly for the most vulnerable groups ▪ Reduce traffic levels and congestion and promote more sustainable transport patterns across the area, particularly focusing on areas with low air quality (e.g. AQMAs)? ▪ Promote sustainable travel to reduce the environmental impact of transport for vulnerable groups?

Table 8-4 - Rural Needs Assessment Objectives

Rural Needs Objective	Rural Needs sub-objectives	Assessment aid questions
Promote greater transport connectivity and accessibility for rural areas	Increase access via a range of transport modes for rural communities.	*Will the ETP…* ▪ Improve the sustainable transport network in rural areas (i.e. improvements to public and 'walk, wheel or cycle' active travel) whilst also recognising that for some in rural areas the car is still essential for accessibility? ▪ Better enable people with specific needs to access transport and day to day activities?
	Enable economic growth, and employment diversification in rural areas.	*Will the ETP…* ▪ Support diversified economic activities in rural areas? ▪ Enhance access to rural employment opportunities? ▪ Improve people's ability to work or run a business from home?
	Connecting people with nature	*Will the ETP…* ▪ Impact those wishing to visit the countryside for recreation and enjoyment? ▪ Protect and enhance natural capital assets?

9. Assessment of Reasonable Alternatives

9.1 Introduction

The Environmental Assessment of Plans and Programmes Regulations 2004 ("the SEA Regulations") require that when an environmental report on a proposed plan or programme is prepared, it must identify, describe and evaluate the likely significant effects of implementing reasonable alternatives to the plan or programme which it assesses, as well as the likely significant effects of the plan or programme itself. The analysis of reasonable alternatives is to take into account "the objectives and the geographical scope of the plan".

In line with the principles of good policy making and with the requirements of the SEA legislation, reasonable alternatives for implementing the aims of the ETP have been considered.

9.2 Defining the reasonable alternatives

Two alternative strategic scenarios have been identified for the purpose of the assessment. These are:

- **Alternative 1**: Represents a scenario in which only committed changes are made to the transport network within the Plan Period (Business as Usual).
- **Alternative 2**: Implement the proposed ETP. This includes a package of measures that align with the Plan vision and are expected to be delivered within the Plan period (Plan proposals) and also the long-term vision which represents the desirable improvements to the active travel, public transport and highway networks across the ETP region that will help to realise economic, environmental and social ambitions for the Plan area.

It is anticipated that the Business as Usual (Alternative 1) approach will continue with current transport trends in terms of:

- Trip numbers per person.
- Average trip lengths.
- Decline in proportion of travel by walking/cycling/micromobility.
- Decline in proportion of travel by public transport/shared transport.
- Steady increase in proportion of trips by EVs.
- Focus of investment on highway orientated schemes

It is anticipated that implementing ETP (Alternative 2) will lead to:

- Fewer trips per person on average.
- Shorter average trip lengths within urban areas.
- A higher proportion of trips by walking/cycling/micromobility.
- A higher proportion of trips by public transport/shared transport.
- Focus of investment on new infrastructure to support the changes (e.g., cycle lanes, bus lanes, minor highway improvements).

Comparing these alternatives also allows identification of effects in the absence of implementing ETP.

It should also be noted that a high level assessment of intervention types has been completed and is outlined in Chapter 12. The assessment findings of the intervention types will also be utilised on an ongoing basis to further inform the development of interventions / schemes and allow for identification and implementation of reasonable alternatives should they be required.

9.3 Assessing the reasonable alternatives

'Alternative 1: To continue under the present approach to planning and investment' and 'Alternative 2: To Implement the proposed ETP' have been assessed against the ISA Framework. Note that this is a high level comparative assessment of the two Alternatives only with the purpose of identifying a preferred alternative in sustainability terms – the detailed policy approach to ETP is appraised in detail using the ISA Framework set out in Chapter 8.

As such, in consideration of two Alternatives, the assessment is undertaken in comparison of anticipated likely sustainability performance relative to each other and in order to draw comparison between Alternatives on a broad level, the following scale in Table 9-1 has been used:

Table 9-1 - Assessment Scale to compare alternatives

Scale	Description
Large Beneficial	A significantly positive outcome is anticipated
Beneficial	Minor positive outcome is anticipated
Neutral	This alternative is anticipated to have the same outcome
Adverse	Minor adverse outcome is anticipated
Large Adverse	A significantly adverse outcome is anticipated

The assessment has been undertaken by grouping ISA Objectives that are impacted in the same way by particular proposals.

9.3.1 Grouped ISA Objectives: Objective 1 - Protect and improve air quality and Objective 2 - Reduce carbon dioxide (CO2) emissions from transport and contribute to meeting net zero carbon targets

9.3.1.1 Alternative 1 – to continue under the present approach to planning and investment (Business as Usual)

At a national level, air quality has improved over the last sixty years as a result of the switch from coal to gas and electricity for heating of domestic and industrial premises, stricter controls on industrial emissions, higher standards for the composition of fuel and tighter regulations on emissions from motor vehicles. There has also been a large growth, particularly in recent years, of renewable sources of energy such as wind and solar. However, poor air quality remains in local hotspots, particularly in urban areas and along roads due to emissions from motor vehicles. This remains a significant issue for community health for the population as a whole but particularly for certain vulnerable or protected characteristic groups such as the elderly, children, those with existing health conditions, those who are pregnant and those living in areas of deprivation.

As indicated, poor air quality is generally associated with urban/industrial areas and major road infrastructure (including junctions in urban areas) and this is reflected in the typical location for Air Quality Management Areas (AQMAs). Many of these have been designated due to high Nitrogen Dioxide (NO_2) and Particulate Matter 10 (PM_{10}) levels. Within the ETP area, a total of eight AQMA's have been declared across four Council areas, seven for NO_2 and one for PM_{10}. NO_2 is often found in urban areas (with specific reasons relating to a combination of traffic, road layout, topography etc.) and frequently those that are considered more deprived. Poor air quality is also often caused in discrete locations, for example by pinch points in the road network causing congestion. It is anticipated that local instances of poor air quality could become more severe during a BAU alternative scenario,

though it is noted that measures are being proposed to address these. Each of the local authorities have their own Air Quality Action Plans aimed at tackling the AQMAs in their areas and improving general air quality in the region. These strategies focus on reducing the current levels of pollutants in the region by promoting modal shift to more sustainable modes such as active travel, public transport and cleaner vehicle technologies. These will be in addition to measures proposed at a national level, as the UK has adopted ambitious, legally binding targets to reduce significantly emissions of NOx and four other damaging air pollutants.

It is also anticipated that there will be a steady uptake in low and zero emission vehicles (LZEVs), which will help to improve air quality and slow / reduce the increase in carbon emissions from the transport sector. However, at present, electric vehicles make up a very small proportion of the vehicle fleet across the region. Northern Ireland also has the lowest number of both standard (300) and rapid (20) charging points of any UK region. It is also worth noting, from a broader context that the ratio of 17 and 1.1 per 100,000 respectively, is significantly lower than the European Commission recommendation of one public recharging point per 10 electric vehicles[69]. Congested and slow moving traffic will also still likely be experienced more frequently in this alternative resulting in higher levels of vehicle emissions localised concentrations and potential issues with local air quality, especially when including the likely diversion of traffic due to congestion onto less appropriate roads with adjacent housing.

As noted by the Committee for Climate Change, domestic transport emissions of road transport account for around a quarter of UK greenhouse gas emissions. Transport is Northern Ireland's second highest greenhouse gas emitting sector, estimated to represent around 20 per cent of emissions, behind agriculture's 26 per cent. However, unlike the other high emitting sectors of agriculture and energy generation, which continue to decrease emissions since 1990 baseline figures, transport emissions continue to grow and are up an estimated 21.5 per cent since 1990[70]. Unsurprisingly, the majority of emissions in transport are from petrol and diesel in road transport. Critical to tackling emissions in transport in Northern Ireland is addressing Northern Ireland's car dependency. Between 2017 to 2019, over 70 per cent of all journeys were taken by car, a car dependency legacy which has spanned over 20 years.

With a growth in population and vehicle numbers, congested and slow moving traffic will be experienced more frequently resulting in higher levels of vehicle emissions localised concentrations and potential issues with local air quality, especially when including the likely diversion of traffic due to congestion onto less appropriate roads with adjacent housing. Alternative 1 is also anticipated to result in new infrastructure such as roads, with no clear focus on improving the uptake of EVs or other approaches such as reducing the need to travel, areas with restricted access, shift to sustainable / active modes etc. There will be elements of sustainable modes and public transport in the current approach, but these may continue to have noted problems such as poor uptake of active modes and more rural areas experiencing poor connectivity and low frequency of bus service.

9.3.1.2 Alternative 2 – To implement the proposed ETP

Implementation of ETP will likely result in fewer trips per person on average due to the focus on 'People Places' (neighbourhood areas, including residential streets, that prioritise active travel), 'Traffic Free Routes' (traffic free transport routes facilitating active travel connections, including along greenways) and 'People and Movement Places' (mixed use places that serve the local community). Air quality is therefore anticipated to benefit in localised areas due to the emphasis on encouraging a modal shift away from private vehicles to more active modes and public transport. This shift will be facilitated across the region, including rural areas, though the nature of the shift means it would most likely be more effective in urban areas, with recognition that there will still be a role for private cars to ensure rural connectivity. It is also anticipated that the implementation of ETP should result in a more efficient transport network, for example, through faster and more reliable bus journeys (average bus journey time is expected to decrease). The ETP will also result in a public transport network with greater reach, compared to that at present.

[69] Decarbonising transport - agendaNi
[70] Decarbonising transport - agendaNi

There will also be interventions such as upgrades to junctions to remove discrete pinch points in the road network to improve traffic flow and consequently allow vehicles to operate more efficiently. It should be recognised that this can also attract additional traffic flows, with consequent adverse effects on air quality.

As noted in ETP, responsibility for the policy and regulation of zero emission fuels, and the associated infrastructure, is spread across many public bodies. DfI are currently collaborating with others to support an acceleration of switching fuels across private vehicle ownership, passenger vehicles, rail and freight. The subject of provision of dedicated infrastructure for electric vehicles is therefore not within the scope of this transport plan. However, as per Alternative 1, it is anticipated that there will be a steady uptake in low and zero emission vehicles (LZEVs), which will help to improve air quality and slow / reduce the increase in carbon emissions from the transport sector

In relation to carbon emissions and air quality, implementing the proposed plan, and the measures contained within, will likely reduce the overall length and number of trips per person on average and increase the active travel interventions. This will likely have positive impacts on carbon emissions (reducing carbon dioxide) and air quality in comparison to continuing under the present approach. It should however be noted that because of the type of measures included in the Plan e.g. bus priority interventions or measures to address shorter journeys, given their scale, whilst positive, the impact will likely be limited (not significant), because they target a relatively modest proportion of transport users.

Table 9-2 - Air quality and carbon emissions objective alternatives assessment

ISA Objective	Alternative 1 – Continue under present approach (BAU)	Alternative 2 – Implement ETP
Protect and improve air quality Reduce carbon dioxide (CO_2) emissions from transport and contribute to meeting net zero carbon targets	Negative	Positive

9.3.2 Grouped ISA Objectives: Objective 6 - Protect, enhance and promote geodiversity'; Objective 9 - Protect and enhance the water environment and Objective 10 - Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources

9.3.2.1 Alternative 1 – to continue under the present approach to planning and investment (Business as Usual)

There are significant challenges in relation to emissions from transportation, including emissions from road runoff to the water or soil environments as noted in the River Basin management Plans. This would be anticipated to continue in the absence of ETP through accidental spillage of hydrocarbons and detritus from brakes and tyres. Similarly, pollution through accidental spillage or construction works can impact on soil resources, leading to contamination. Soil and agricultural resources can also be lost due to infrastructure development, including that related to the transport network.

9.3.2.2 Alternative 2 – To implement the proposed ETP

As with continuing under the present approach (BAU), new development, promoted or enabled through ETP, could have implications for the water environment, as well as soil and agricultural resources.

However, there are a range of focus areas within ETP that can help address many of these issues and minimise adverse effects. For example, a general focus on shifting journeys to more sustainable modes in line with the 'sustainable transport hierarchy', such as active travel (walking and wheeling or cycling) or public transport, should reduce the risk of pollution incidents through accidents and will reduce road and other runoff containing residue of tyre and brake wear. Nevertheless, ETP will promote new infrastructure and this could result in the loss of soil resources.

It is considered that implementing ETP will have a positive effect on the protection of the water environment, soil and agricultural resources and the effects of a changing climate in comparison to continuing under the present approach

Table 9-3 - Noise, geodiversity, water and soils alternative assessment

ISA Objective	Alternative 1 – Continue under present approach (BAU)	Alternative 2 – Implement ETP
Protect, enhance and promote geodiversity Protect and enhance the water environment Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	Negative	Positive

9.3.3 Grouped ISA Objectives: Objective 3 - Increase resilience of the transport network to the effects of a changing climate such as extreme weather events

9.3.3.1 Alternative 1 – to continue under the present approach to planning and investment (Business as Usual)

Current indications are that the climate in Northern Ireland, like that of the rest of the UK, is changing. This has profound implications for the transport network, with adverse effects likely from extreme weather events. This includes the potential for extreme heat / cold to damage rail tracks, as well as road surfaces, increased wind with consequent risk of falling or flying debris, as well as difficulty walking particularly for those with mobility issues. In addition, extremes of temperature will likely make making journeys for passengers uncomfortable or even dangerous in some circumstances. Similarly, extremely wet conditions put transport infrastructure at risk of flooding, though transport infrastructure itself can exacerbate this situation in some locales due to impermeable surfaces, changes to flood plains, changes to hydrological regimes and so on. Increased wet conditions can also lead to land instability. It is noted that at present, some communities in the plan area, such as those in more exposed coastal locations can be more negatively affected by extreme weather events and in the absence of increased resilience, this isolation would continue or increase. At present in Northern Ireland, as with other parts of the UK, there are flood management plans in place to cover relevant river basins. All the flood risk plans introduce a series of measures / actions to be undertaken to prevent flood risk and reduce the likelihood of flooding affecting people and property in certain locations. It is also the case that there is a series of existing flood alleviation and flood protection measures across the region.

9.3.3.2 Alternative 2 – To implement the proposed ETP

As with the BAU approach, it is anticipated that ETP will result in additional infrastructure. This will continue to be protected from extreme weather such as flooding by existing flood plans and flood protection measures. Nevertheless, ETP notes the need for a transport system that is resilient to extreme weather events, one that increases the number of travel options available to the region to strengthen the network's resilience. The Plan further notes the requirement for high standards of infrastructure, supported by regular maintenance to help protect against damage and degradation, including from the effects of extreme weather events. Key Performance Indicators (KPIs) of the Plan, developed to ensure achievement of the Plan objectives, includes KPIs aligning with Objective 6: 'Enhance the resilience and safety of the transport network to support the economy and meet the challenges of climate change' include the need to monitor the reductions of individuals, Killed and Seriously Injured (KSI's) over the life of the Plan and against baseline.

It is also the case that the ETP sets out a range of approaches to reducing the driver of climate change i.e. it has set out how carbon emissions from transport will be reduced. This includes for example an emphasis on more active travel and reallocation of roadspace to encourage a shift to public transport, including buses which are noted to produce fewer emissions per passenger compared to cars. Again, the Plan notes the requirement to monitor the reduction in GHG emissions from transport and associated industries over the Plan period to ensure alignment with the overall vision of the Plan. It is considered that implementing the ETP will have a positive effect on maximising adaptation and resilience of the transport network to the effects of a changing climate in comparison to continuing under the present approach.

Table 9-4 - Adaptation and resilience alternatives assessment

ISA Objective	Alternative 1 – Continue under present approach (BAU)	Alternative 2 – Implement ETP
Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	Negative	Positive

9.3.4 Grouped ISA Objectives: Objective 4 - Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain; Objective 5 - Protect and enhance sites designated internationally for nature conservation purposes (HRA objective) and Objective 6 - Protect, enhance and promote geodiversity

9.3.4.1 Alternative 1 – to continue under the present approach to planning and investment (Business as Usual)

Within the ETP area there are a wide range of sites designated for nature conservation, as well as valuable ecological networks and individual plants and species of importance. At the highest level, the designated sites include six Ramsar sites, eight Special Protection Areas, six Special Areas of Conservation and 66 Areas of Special Scientific Interest (including a number designated for Geodiversity). There are also resources of ancient woodland identified and 11 National Nature Reserves, mainly concentrated in Antrim and Newtownabbey Borough Council. The ETP area also contains a site which is being explored to establish a UNESCO Geopark area which would recognise the significant geological, historical and cultural heritage of the area, covering both the Mid and East Antrim Council and Causeway Coast and Glens Council.

Northern Ireland is experiencing significant biodiversity loss, driven by habitat degradation, pollution, invasive species, and climate change. In addition to these constant pressures, new transport interventions have the potential to impact on sites of ecological or geological value, and more generally on the network of linked multi-functional green spaces, comprising the local green infrastructure. This impact can be a result of direct land take for infrastructure (which may contribute to fragmentation), construction and operational disturbance (noise, vibration, light pollution, etc.) or emissions / contamination (air, water and soil). It should also be noted, that despite the health and wellbeing benefits, increased accessibility to designated sites also has the potential to adversely impact on them. Direct roadkill can also impact some species. However, new transport measures may also provide opportunities for enhancement and can provide opportunities for increased biodiversity, or to aid certain species such as the through the All-Ireland Pollinator Plan.

It is the case though that existing transport schemes may provide opportunities to address some areas of concern and these would continue in the absence of ETP. Whist not a legal requirement in Northern Ireland, consideration of Biodiversity Net Gain could generate opportunity to improve biodiversity.

It is also the case that there are existing and clear mechanisms to protect designated sites (through for example the Habitats Regulations Assessment process), as well an existing set of requirements and mechanisms to protect those sites designated for nature conservation such as the Environmental Improvement Plan (EIP) for Northern Ireland and Northern Ireland Priority Habitat Guides. It is anticipated that these would continue under BAU and provide some protection from the pressures of development and the transport network, though it is to be recognised that most elements of biodiversity are not designated. Climate change will provide a constant and ongoing challenge to biodiversity.

9.3.4.2 Alternative 2 – To implement the proposed ETP

ETP has a range of implications for biodiversity and potentially sites designated for nature conservation. While there may still be continuing impacts from transport infrastructure, both during construction and operation, ETP sets out elements that can help to minimise effects. These include a fewer trips per person on average and a higher proportion of trips through more sustainable modes (including public transport and active travel). This clear focus away from the use of private vehicles should reduce disturbance to designated sites and habitats and reduce the potential for direct strike / roadkill. It is also the case that reductions in air pollution emissions may also reduce

pollution deposition on valuable habitats. Less emphasis on large scale interventions, as per ETP, such as new road building, will also reduce the potential for direct impacts on designated sites or habitats, while the emphasis on walking and cycling routes will provide better opportunities to incorporate green infrastructure, as well as access to the countryside. There is also a clear note made in ETP to reducing, relocate or carefully managing on-street parking provision which could lead to some of these sites being utilised for green infrastructure or open spaces. The Plan further notes, that the impacts of transport construction and operation on biodiversity and habitats needs also to be considered.

ETP also sets out a range of measures that will provide opportunities. For example, enhanced public realm in district centres. The Plan notes that transport related improvements to public realm across 34 Local Centres have been identified by Belfast City Council across the Metropolitan Area. Such improvements to public realm spaces provide opportunities for planting that could increase habitat or general biodiversity. Active travel routes would also provide opportunities for green infrastructure to be incorporated, as well as increased access for people to the countryside. Regular maintenance would provide opportunities for addressing the problem of invasive species, which is a threat to biodiversity in Northern Ireland.

It is considered that implementing the ETP will have a positive effect on designated sites (including those for geodiversity), habitats, sites, species and valuable ecological networks in comparison to continuing under the present approach.

Table 9-5 - Designated sites, biodiversity and geodiversity alternatives assessment

ISA Objective	Alternative 1 – Continue under present approach (BAU)	Alternative 2 – Implement ETP
Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain; Protect and enhance sites designated for their international importance for nature conservation purposes (linked to HRA); Protect, enhance and promote geodiversity	Negative	Positive

9.3.5 Grouped ISA Objectives: Objective 7 - Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings and Objective 8 - Protect and enhance the character and quality of landscapes, seascapes, townscapes and visual amenity

9.3.5.1 Alternative 1 – to continue under the present approach to planning and investment (Business as Usual)

The ETP area has a range of significant cultural heritage assets, including Gracehill Moravian Church Settlement World Heritage Site. In addition, there are examples of Scheduled Monuments, Registered Parks and Gardens, Battlefields and Listed Buildings. Of course, the nature of cultural heritage features means that there are likely to be many other features not currently known, such as buried archaeological remains.

As with the United Kingdom, there is an ongoing risk of uncoordinated and piecemeal development resulting in successive erosion of the quantum and integrity of the region's cultural heritage resource. While these assets (and their settings) could be affected by transport interventions (such as new roads), in the absence of ETP, protection will continue to be provided to these cultural heritage features (for example through protection afforded to Scheduled Monuments) and it is likely that new sites will join the list, e.g. through archaeological discovery, or new interpretations of existing sites.

In relation to landscapes, ETP covers a large area containing a wide variety of landscapes ranging from the urban area of the city and associated inland settlements in Belfast and Lagan Valley LCA to the coastal lowlands of County Down including several small distinct areas, centred around Strangford Lough in Strangford, Ards and Lecale LCA and a vast sheet of water surrounded by very low-lying, often boggy land in the Lough Neagh Basin LCA.

The ETP area also intersects a range of Seascape Character areas, with the most northerly area intersecting the region characterised by vegetated slopes and large sweeping sheltered bays, progressing southwards into largely unspoilt coastline to shallow and narrow sea lough at Larne Lough, and on to large scale open sea at Belfast Lough and the associated port at Belfast Harbour. Further south around Ards Peninsula, the seascape is characterised by gently sloping shoreline with nearby heritage assets before reaching the sheltered and complex Strangford Lough. Also found throughout the region are a series of woods and rivers stretching through rural and urban areas.

There are a range of pressures on land resource, many of which are potentially altering landscapes in manner inconsistent with the traditional landscape vernacular of the area. These changes are a reflection of the fact that the landscape of the UK has changed over many years due to a range of issues such as urbanisation, changes to agriculture, reduced tranquillity, loss of habitats and forests, etc. The Plan Area is intersected by three National Landscapes (formerly known as Areas of Outstanding Natural Beauty); Strangford and Lecale, Antrim Coast and Glens, and Lagan Valley. There are also 60 Conservation Areas in the ETP area. Many of the region's most exceptional landscape and townscapes benefit from protection through designations that will persist in the absence of the ETP.

In general terms, modern design / landscaping principles and expectations of interested parties are promoting a renewed focus on the quality of scheme design and this trend is likely to continue, though risks from increased urbanisation and infrastructure development remain. It is also likely that current congestion and a focus on car use, as expected with BAU, will result in continuation of issues within townscapes relating to parking.

9.3.5.2 Alternative 2 – To implement the proposed ETP

The ETP proposal is similar to BSU alternative 1 in that, new development promoted or enabled through ETP could have implications for heritage assets and the wider historic environment, as well as landscapes etc. Particular effects would be dependent upon the location of the development and could be beneficial or adverse. However, it is anticipated that on the whole, the focus will be on smaller scale interventions such as walking and cycling routes. New roads will only be for discrete purposes such as connecting new developments or addressing particular congestion hotspots. ETP also contains a range of aspects that are anticipated to help minimise effects. For example, a reduction in private car usage (encouraged by the shift to active and public transport) could potentially reduce disturbance to cultural heritage assets and their settings.

Similarly in relation to landscape, townscape and visual amenity, ETP will provide opportunities for protection and enhancement. For example, a general reduction in car usage (encouraged by the shift to active and public transport) could potentially enhance landscapes and townscapes etc. by removing traffic and improving overall visual amenity. ETP also identifies opportunities to increase the extents of pedestrianised streets to provide opportunities to improve overall public realm and streetscapes, with potential to add green and public spaces, and active travel routes should include high quality design features such as tactile paving to make navigating streets easier for those with disabilities or sensory impairments such as vision loss. Nevertheless, for both cultural heritage and landscape etc., ETP will result in new infrastructure. While there is a focus on good design, this would represent new features in the landscape.

In this light, it is considered that implementing ETP will have a positive effect on the protection and enhancement of heritage assets and on the character and quality of landscapes and townscapes and visual amenity in comparison to continuing under the present approach.

Table 9-6 - Landscape and Heritage alternatives assessment

ISA Objective	Alternative 1 – Continue under present approach (BAU)	Alternative 2 – Implement ETP
Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings Protect and enhance the character and quality of landscapes, seascapes, townscapes and visual amenity	Neutral	Positive

9.3.6 Grouped ISA Objectives: Objective 11 - Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated; Objective 12 - Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all and Objective 13 - Support the wider coordination of land use, energy planning and transport planning across the Eastern Transport Area and into surrounding regions

9.3.6.1 Alternative 1 – to continue under the present approach to planning and investment (Business as Usual)

The transport sector can impact on and interact with a wide range of resources such as through energy (fuel) use, use of construction materials (aggregate, concrete, etc.), waste generation and disposal, etc.. The construction of new transport interventions contribute to increased levels of waste generated if building materials are not efficiently used / reused. With more waste being produced, trip kilometres to transport such waste is likely to increase, thus generating more traffic. A lack of proactive maintenance can ultimately cost more in terms of material use and resources – addressing issues in a timely manner can result in not having to replace or renew infrastructure.

Transport is the largest energy consuming sector in the UK, representing 42% of total energy consumption in 2023. However, in the absence of ETP it is anticipated new approaches are helping to shift towards greater efficiencies in resource use and adherence to the waste hierarchy. Energy usage within transport is falling and it is anticipated that there will be an increase in the uptake of EVs (particularly as the EV charging network expands) which will contribute to falls in the use of hydrocarbons. ETP notes that, at present, electric vehicles make up a very small proportion of the vehicle fleet across the region[71]. Responsibility for the policy and regulation of zero emission fuels, and the associated infrastructure, is spread across many public bodies. DfI are currently collaborating with others, outside of ETP, to support an acceleration of switching fuels across private vehicle ownership, passenger vehicles, rail and freight.

In relation to economic activity, Northern Ireland has recovered from the prominent reduction in output during Quarter 2 of 2020 and is currently at a level not seen since mid-2008, similarly to the UK economy which has recovered beyond its pre-pandemic level. The service sector accounts for just over half of economic activity in Northern Ireland. Areas within the service sector include business services and finance, transport, storage, information and communication and wholesale & retail trade; repair of motor vehicles & motorcycles; accommodation & food. Production accounts for around 16% of economic activity in Northern Ireland, and within that manufacturing accounts for the vast majority of output (79.4%). Private sector businesses provide around 578,000 employee jobs and accounts for around three quarters of jobs in Northern Ireland.

Transport is seen as an important economic influence. Across the ETP area, high levels of car use and low occupancy vehicles cause severe peak period congestion, particularly within Belfast. There are also some economic inequalities across the region, with for example employment rates and skill levels comparing negatively to national rates. Although the employment rate has increased over the long-term, the rate in NI is consistently below the rate in the UK overall. In 2017, 16.6% of Northern Ireland residents aged 16 to 64 had no qualifications, compared to 8.0% of all UK residents. Transport is seen as a key factor in helping to address such issues, with a lot of the ETP area containing commuter towns. The ETP area, like much of Northern Ireland, is experiencing an

[71] Electric and Ultra-low emission vehicles: Public survey results (Northern Ireland Assembly, 2021): https://www.niassembly.gov.uk/globalassets/documents/raise/publications/2017-2022/2021/infrastructure/4621.pdf

ageing population. Recent estimates found 17% of Northern Ireland's population is aged 65 or over with increasing demand for age related services, healthcare and accessible infrastructure. Deprivation is also a significant problem in the ETP area, with a number of the top 100 most deprived Super Output Areas in each council area, Belfast containing the most at 50. Deprived areas tend to have the poorest life expectancy and general health outcomes however, the ETP area performs better in some aspects compared to the national picture e.g. life expectancies are generally higher than the national average across the region.

The ETP region covers a mix of land use types across the study area, e.g. heavily urbanised, suburban, urban fringe and rural locations. The area also contains a range of settlement sizes, from cities and large towns to villages and small villages. Four key transport corridors intersect the ETP region: the Eastern Seaboard Corridor links between Metropolitan Area, Dublin and northward to Larne, the North western Corridor links the Belfast Metropolitan Area to Derry / Londonderry, and provides access to Belfast International Airport, Northern Corridor links the Belfast Metropolitan Area to Antrim, Ballymena, Ballymoney, Coleraine, Limavady and Derry / Londonderry, and the South Western Corridor links the Belfast Metropolitan Area to Craigavon, the Fermanagh Lakelands, the Sperrin's and to important cross border routes.

Nevertheless, it is considered that the ETP area will likely remain a relatively mixed urban and rural region, with most of its population centred around urban areas like Belfast, Lisburn, Newtownards, Carrickfergus, Bangor and Hollywood. There is uncertainty how this may change over time though due to a likely rise in homeworking and e-commerce and a consequent change in commuting patterns.

9.3.6.2 Alternative 2 – To implement the proposed ETP

While challenges to the use of materials and resources, economic development and general planning will remain, it is anticipated that the ETP will provide a clear focus on helping to address some of these challenges. For example, a general reduction in car usage, as the focus shifts to more sustainable modes of travel (both active and public travel), should reduce the use of hydrocarbons. As such, implementing the ETP is anticipated to have a positive effect in comparison to the present approach.

A clear note is also made that transport is crucial to the economy and its growth through helping people access jobs, attracting and retaining employers to the region and unlocking development sites for businesses and housing." It is the intention that the ETP should result in a more efficient and seamless network with a focus on issues such as improving connectivity, locally across the region. This increased connectivity concerns both people and goods – for example, note is made that for the purposes of economic growth, this is vital to ensuring the ETP area, and Northern Ireland as a whole, remains economically competitive, and connected. Similarly, note is made how the transport network enables the movement of goods and services as well as people. This is demonstrated through one of the objectives of the ETP; to 'support the efficient sustainable movement of goods and people and enhance connectivity to regional networks including access to airports and ports'.

Note is made of the sustainable transport hierarchy and how this will be used flexibly in the ETP to ensure that the right modes are prioritised in the right places across the region's network. More generally, facilitating journeys by a range of modes will make it easier for people to access employment and economic opportunities more widely across the region.

A number of interventions proposed within the ETP such as bus lanes, increased priority for walking and wheeling and dedicated cycle lanes, will result in economic and social benefits (reduced congestion, enhanced quality of life, aid to economic growth, facilitating movement of goods and services) through the effective land use and transport planning coordination in their implementation

It is considered that implementing the ETP will have a large positive effect on economic growth and job creation and improving access and connectivity to jobs and skills for all in comparison to continuing under the present approach.

Table 9-7 - Resource use, economy and planning alternatives assessment

ISA Objective	Alternative 1 – Continue under present approach (BAU)	Alternative 2 – Implement ETP
Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated; Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all; Support the wider coordination of land use, energy planning and transport planning across the Eastern Transport Area and into surrounding regions	Negative	Positive

9.3.7 Grouped ISA Objectives: Objective 14 - Improve health and well-being for all citizens and reduce inequalities in health (HIA specific objective); Objective 15 - Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society (EqIA specific objective) and Promote rural proofing (Rural Needs assessment specific objective)

9.3.7.1 Alternative 1 – to continue under the present approach to planning and investment (Business as Usual)

The ETP area faces a range of challenges related to its population, their level of economic activity, how they interact with the transport network and how these ultimately impact general health outcomes. Inequalities (including equality of opportunity) also vary across the ETP region and for Northern Ireland as a whole. For example, transport can play a significant role in poorer health outcomes, due to issues such as air pollution (linked to respiratory illness, asthma and premature death) and noise (linked to mental wellbeing issues).

While there are some elements of the current approach that would have benefits in terms of health etc., for example there are existing active travel routes serving the region as well as paths and trails, it is generally recognised that the transport network could be improved and in turn it can support better health outcomes, reduced inequalities and enhanced connectivity, including to rural areas.

9.3.7.2 Alternative 2 – To implement the proposed ETP

ETP has a clear focus on increasing accessibility via a range of modes, which would include active travel and public transport. There will be improved health benefits during operation of the ETP as a result of increased physical activity from walking and wheeling and cycling interventions. Increased uptake of walking, wheeling and cycling would reduce vehicle use and associated GHG emissions, thereby providing health benefits to all citizens. It is noted that certain groups may be unable to easily access these types of travel including those with mobility issues, those who are pregnant, elderly people. Additionally, walking and cycling interventions implemented through the ETP may benefit disadvantaged groups in society through greater access to affordable / free transport routes, although it is noted that there may still be costs associated, for example through purchasing a bicycle.

Indirect beneficial effects can also be anticipated through elements of ETP such as encouraging fewer trips per person and a modal shift away from private vehicles to more active modes and public transport which will improve air quality in local areas. Improved air quality will improve health outcomes across all sectors of society, with likelihood of being particularly beneficial to vulnerable groups such as children and adolescents, as well as the elderly, those with existing health conditions (particularly those related to lung and heart conditions), as well as those on low income (who tend to live in areas more heavily impacted by road traffic). In addition to the promotion of public transport, a large element of reducing emissions will be achieved through emphasising walking, wheeling and cycling. This is noted throughout ETP through provision of greater levels of opportunities to undertake active travel. This will directly help improve health outcomes and will also provide opportunities to improve health and wellbeing through providing opportunities for exercise and leisure. It is anticipated that all groups would benefit, while some elements such as active travel may not be fully accessible to all, including disabled, pregnant women, elderly. Note is also made that it is anticipated that people of all ages, especially those without access to a car should benefit from enhanced connectivity and reach, although negative effects may be experienced some socio-economic groups through parking charges which may restrict car usage. Further indirect effects on health can also be anticipated through elements noted in ETP, which deals with increasing access to economic opportunities. This has noted benefits for health outcomes by providing jobs or opportunities for educational advancement and may have the indirect benefit of helping to reduce crime rates by reducing economic uncertainty.

While a key element of the Plan area is concerned with ensuring rural communities have access to the wider transport network, it may also work in the other direction, with people in the urban communities ultimately having greater access to rural areas and allow people to better connect with nature. This could have beneficial effects on health and wellbeing.

It is considered that implementing ETP will have a large positive effect on equality of opportunity for all, improving health and wellbeing and reducing inequalities in health outcomes, as well as promoting rural connectivity.

Table 9-8 – Health and well-being, equalities and rural needs alternatives assessment

ISA Objective	Alternative 1 – Continue under present approach (BAU)	Alternative 2 – Implement ETP
Improve health and well-being for all citizens and reduce inequalities in health (HIA specific objective); Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society (EqIA specific objective); Promote fairness and equity in rural connectivity (rural proofing specific objective)	Neutral	Large Positive

9.4 Conclusions to consideration of reasonable alternatives

It can be shown that implementation of the ETP represents a more favourable approach to transport planning across most ISA Objectives in comparison to continuing under the present approach. While it is to be recognised that the present approach does have some key elements, such as an active travel network and public transport services in the region, these elements of the existing transport network are not reaching full potential. Where ETP is particularly beneficial in comparison to the present approach is that it offers a clear approach to reducing emissions and improving air quality, as well as providing clear support to Northern Irelands economic growth and it will help to address issues relating to equalities, health and safety.

10. Compatibility between ETP Objectives and ISA Objectives

10.1 Introduction

To help ensure that the vision and objectives of the ETP are as closely aligned with the ISA objectives as possible, a test of their compatibility was undertaken. This test helped to identify potential synergies and inconsistencies, as well as assisting in refining the elements of the ETP and identifying alternatives. It is worth noting that following the initial compatibility assessment, the draft Vision and Objectives were the subject of a public engagement exercise and were amended in light of that, and recommendations made as part of the compatibility assessment exercise.

The vision and objectives of the ETP that were subject to this Compatibility Assessment are outlined as follows:

10.1.1 Vision

The ETP vison assessed was:

'*Deliver an integrated and re-balanced transport network in favour of sustainable, efficient modes, which connects communities creating an accessible, inclusive, safe and prosperous economic region by delivering carbon reduction, improving air quality, enhancing the built and natural environment and facilitating healthy and sustainable travel choices over unnecessary private car travel*.'

10.1.2 ETP Objectives

Seven draft objectives underpinned the vision, as follows:

- Objective 1 – Reduce travel distances by promoting safe, inclusive and connected neighbourhoods, supported by integrated planning.
- Objective 2 – Deliver a reduction in carbon emissions by increasing accessibility for all to jobs, services and recreation by sustainable travel modes
- Objective 3 – Promote healthy and inclusive communities by developing safe sustainable travel modes that respect the local built and natural environment.
- Objective 4 – Reduce unnecessary use of the private car by implementing effective demand management measures
- Objective 5 – Improve air quality and the environment by encouraging the use of sustainable travel modes and vehicles which utilise sustainable fuels.
- Objective 6 – Enhance the resilience and safety of the transport network to support the economy and meet the challenges of climate change.
- Objective 7 – Support the efficient, sustainable movement of goods and people and enhance connectivity to regional networks including access to airports and ports.

All of the above elements have been tested for Compatibility with the following ISA Objectives:

1. Protect and Improve air quality
2. Reduce carbon dioxide (CO2) emissions from transport and contribute to meeting net zero carbon targets
3. Increase resilience of the transport network to the effects of a changing climate such as extreme weather events

4. Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain
5. Protect and enhance sites designated internationally for nature conservation purposes *(HRA objective)*
6. Protect, enhance and promote geodiversity
7. Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings
8. Protect and enhance the character and quality of landscapes, townscapes and visual amenity
9. Protect and enhance the water environment
10. Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources
11. Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated
12. Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all
13. Support the wider coordination of land use, energy planning and transport planning across Belfast Metropolitan Transport Area and into surrounding regions
14. Improve health and well-being for all citizens and reduce inequalities in health
15. Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society

10.2 Compatibility Assessment findings

In this compatibility assessment, the following scoring scheme in Table 10-1 is used to summarise compatibility:

Table 10-1 - Compatibility assessment scoring scheme

√	Broadly Compatible
X	Potential Conflict
?	No sufficient detail provided to ascertain compatibility
NR	Not Relevant / No Relationship

The results of the assessment are summarised in Table 10-2 and a discussion of the results then follows. Full assessment tables are provided in Appendix F.

Table 10-2 - Compatibility Assessment Overview

Elements of ETP Subject to Compatibility Assessment		ISA Objectives														
		Emissions		Environmental									Economic		Social	
		Protect and Improve air quality	Reduce carbon dioxide (CO_2) emissions from transport and contribute to meeting net zero carbon targets	Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	Protect and enhance sites designated internationally for nature conservation purposes *(HRA objective)*	Protect, enhance and promote geodiversity	Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings	Protect and enhance the character and quality of landscapes, townscapes and visual amenity	Protect and enhance the water environment	Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated	Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all	Support the wider coordination of land use, energy planning and transport planning across the Belfast Metropolitan Transport Area and into surrounding regions	Improve health and well-being for all citizens and reduce inequalities in health	Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Vision	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	?	✓	?
1	Reduce travel distances by promoting safe, inclusive and connected neighbourhoods, supported by integrated planning.	✓	✓	?	✓	✓	NR	?	✓	✓	?	?	?	?	✓	✓
2	Deliver a reduction in carbon emissions by increasing accessibility for all to jobs, services and recreation by sustainable travel modes.	✓	✓	?	✓	✓	✓	✓	✓	✓	?	?	✓	?	✓	✓
3	Promote healthy and inclusive communities by developing safe sustainable travel modes that respect the local built and natural environment.	✓	✓	?	?	?	?	?	?	?	?	?	✓	?	✓	✓
4	Reduce unnecessary use of the private car by implementing effective demand management measures.	✓	✓	?	✓	✓	?	?	✓	✓	?	✓	✓	?	✓	X
5	Improve air quality and the environment by encouraging the use of sustainable travel modes and vehicles which utilise sustainable fuels.	✓	✓	?	✓	✓	✓	✓	NR	✓	NR	✓	NR	?	✓	?
6	Enhance the resilience and safety of the transport network to support the economy and meet the challenges of climate change.	NR	NR	✓	NR	NR	?	?	NR	?	NR	NR	✓	?	✓	✓
7	Support the efficient, sustainable movement of goods and people and enhance connectivity to regional networks including access to airports and ports.	X	X	?	X	X	X	X	X	X	?	X	✓	✓	?	?

Overall, the results of the assessment indicate that there is a good degree of compatibility in a number of key elements.

VISION

This vision is broadly compatible with ISA Objectives 1-12 and 13.

OBJECTIVE 1 – Reduce travel distances by promoting safe, inclusive and connected neighbourhoods, supported by integrated planning.

This Objective is broadly compatible with ISA Objectives 1, 2, 4, 5, 8, 9 and 14-15. In particular, the ETP Objective is broadly compatible with the ISA Objectives relating to societal issues as it focuses on reducing the need to travel through safer, inclusive and connected neighbourhoods.

OBJECTIVE 2 – Deliver a reduction in carbon emissions by increasing accessibility for all to jobs, services and recreation by sustainable travel modes.

This Objective is broadly compatible with ISA Objectives 1, 2, 4-9, 12 and 15. As this objective focuses on carbon emissions, due to the cross cutting nature of these issues, it is broadly compatible with most of the ISA Objectives focused on environmental issues.

OBJECTIVE 3 – Promote healthy and inclusive communities by developing safe sustainable travel modes that respect the local built and natural environment.

This Objective is broadly compatible with ISA Objectives 1, 2, 12, 14 and 15. As this objective focuses on healthy and inclusive communities it is broadly compatible with most of the ISA Objectives focused on environmental and societal issues. While it notes protecting and enhancing the built and natural environment, there is a potential for infrastructure which could have adverse effects on many of the environmental objectives, depending on how such infrastructure is implemented.

OBJECTIVE 4 – Reduce unnecessary use of the private car by implementing effective demand management measures.

This Objective is broadly compatible with ISA Objectives 1, 2, 4, 5, 8, 9, 10 and 14. There are positive impacts associated with reducing private car use. Therefore the objective is broadly compatible with a number of the ISA Objectives focused on environmental issues.

OBJECTIVE 5 – Improve air quality and the environment by encouraging the use of sustainable travel modes and vehicles which utilise sustainable fuels.

This Objective is broadly compatible with ISA Objectives 1, 2, 4 -7, 9, 11, and 14. In particular, the ETP Objective is broadly compatible with the ISA Objectives relating to environmental issues as it focuses on improving air quality and the environment.

OBJECTIVE 6 – Enhance the resilience and safety of the transport network to support the economy and meet the challenges of climate change.

This Objective is broadly compatible with ISA Objectives 3, 12 and 14-15, as it focuses on resilience to climate change, supporting the economy and safety of the transport network.

OBJECTIVE 7 – Support the efficient, sustainable movement of goods and people and enhance connectivity to regional networks including access to airports and ports.

This Objective is broadly compatible with ISA Objectives 12 and 13, as it focuses on movement of goods and people and connectivity.

Areas of potential conflict have been identified for ETP Objective 4 and 7 in relation to a number of the ISA Objectives. This is for the most part due to the potential for increased traffic from the efficient movement of goods and people through enhanced regional connectivity.

It should also be noted that the nature of ETP may result in development of transport infrastructure. This type of development will have clear implications for the spatial and environmental context in which it takes place and ETP needs to clarify how potential impacts can be addressed, across the full range of sustainability (economy, environment and society). This clarity should be provided as part of ETP further development as appropriate.

The assessment also found that there were a number of areas with a degree of uncertainty as to the compatibility of the elements of the ETP and the ISA Objectives. These areas offer the potential to be compatible, but further development of the ETP content, including Vison and Objectives as policies is required to ensure compatibility is attained.

Table 10-3 - Identified Potential Areas of Uncertainty

ETP element	ISA Objectives for which compatibility is dependent upon further development of ETP content
VISION	▪ ISA Objective 13 Support the wider coordination of land use, energy planning and transport planning across the Belfast Metropolitan Transport Area and into surrounding regions ▪ ISA Objective 15 Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society
Objective 1	▪ ISA Objective 3 Increase resilience of the transport network to the effects of a changing climate such as extreme weather events ▪ ISA Objective 7 Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings ▪ ISA Objective 10 Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources ▪ ISA Objective 11 Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated ▪ ISA Objective 12 Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all ▪ ISA Objective 13 Support the wider coordination of land use, energy planning and transport planning across the Belfast Metropolitan Transport Area and into surrounding regions
Objective 2	▪ ISA Objective 3 Increase resilience of the transport network to the effects of a changing climate such as extreme weather events ▪ ISA Objective 10 Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources ▪ ISA Objective 11 Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated ▪ ISA Objective 13 Support the wider coordination of land use, energy planning and transport planning across the Belfast Metropolitan Transport Area and into surrounding regions
Objective 3	▪ ISA Objective 3 Increase resilience of the transport network to the effects of a changing climate such as extreme weather events ▪ ISA Objective 4: Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain ▪ ISA Objective 5: Protect and enhance sites designated internationally for nature conservation purposes ▪ ISA Objective 6 Protect, enhance and promote geodiversity

ETP element	ISA Objectives for which compatibility is dependent upon further development of ETP content
	▪ ISA Objective 7 Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings ▪ ISA Objective 8 Protect and enhance the character and quality of landscapes, townscapes and visual amenity ▪ ISA Objective 9 Protect and enhance the water environment ▪ ISA Objective 10 Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources ▪ ISA Objective 11: Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated ▪ ISA Objective 13 Support the wider coordination of land use, energy planning and transport planning across the Belfast Metropolitan Transport Area and into surrounding regions
Objective 4	▪ ISA Objective 3 Increase resilience of the transport network to the effects of a changing climate such as extreme weather events ▪ ISA Objective 6 Protect, enhance and promote geodiversity ▪ ISA Objective 7 Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings ▪ ISA Objective 10 Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources ▪ ISA Objective 12: Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all ▪ ISA Objective 13 Support the wider coordination of land use, energy planning and transport planning across the Belfast Metropolitan Transport Area and into surrounding regions
Objective 5	▪ ISA Objective 3 Increase resilience of the transport network to the effects of a changing climate such as extreme weather events ▪ ISA Objective 13 Support the wider coordination of land use, energy planning and transport planning across the Belfast Metropolitan Transport Area and into surrounding regions ▪ ISA Objective 15: Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society
Objective 6	▪ ISA Objective 6 Protect, enhance and promote geodiversity ▪ ISA Objective 7 Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings ▪ ISA Objective 9 Protect and enhance the water environment

ETP element	ISA Objectives for which compatibility is dependent upon further development of ETP content
	▪ ISA Objective 13 Support the wider coordination of land use, energy planning and transport planning across the Belfast Metropolitan Transport Area and into surrounding regions
Objective 7	▪ ISA Objective 3 Increase resilience of the transport network to the effects of a changing climate such as extreme weather events ▪ ISA Objective 10: Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources ▪ ISA Objective 14 Improve health and well-being for all citizens and reduce inequalities in health ▪ ISA Objective 15: Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society

Note that in relation to ETP Objective 1 no relationship with ISA Objective 6 was identified. This is due to the ETP Objective focusing on supporting safe, inclusive and connected neighbourhoods and is not likely to have an effect on geodiversity.

ETP Objectives 5 was not identified to have a relationship with ISA Objectives 8, 10 and 12. Additionally, ETP Objective 5 was identified to have no relationship with ISA Objectives 8 and 10.

As ETP Objective 6 focuses on supporting the economy and climate change resilience, no relationship has been identified with a number of the ISA Objectives. These are ISA Objective 1, 2, 4, 5, 8, 10 and 11.

In many cases, the uncertainty of outcome is driven by the nature of the ETP itself. It is likely, and to be expected, that the nature of ETP and its Objectives may result in heavy engineering and construction, or schemes with a large footprint, along with the spatial and planning context in which these will take place. These types of activities have the potential for both negative and positive outcomes.

Outcomes to these areas will depend upon the Policy framework and approach to mitigation that the ETP sets for implementation and the following recommendations are made to ensure more 'complete coverage' of ISA Objectives:

Table 10-4 - Overview and Recommendations to strengthen and improve compatibility

ETP element	Overview and Recommendations
General outcomes	Provide greater, yet succinct, clarity on how ETP can interact across the three elements of sustainability (economy, environment and society). Ideally this would be throughout the ETP, so that it is understood that all elements are to be undertaken within a wider sustainability framework.
Vision	The vision provides reference across all areas of sustainability in general terms. However, it is considered that the visions could be amended to better reflect the need to support the wider coordination of land use, energy planning and transport planning and promote greater equality of opportunity for all citizens.
Objective 1: Reduce travel distances by promoting safe, inclusive and connected neighbourhoods, supported by integrated planning.	Consideration could be given to noting within this ETP Objective of connecting to jobs and opportunities.
Objective 2: Deliver a reduction in carbon emissions by increasing accessibility for all to jobs, services and recreation by sustainable travel modes.	Consideration could be given through this ETP Objective of the need for coordination of planning to be considered within the design of all transport infrastructure. Text should be incorporated to recognise the importance of community safety in transport infrastructure
Objective 3: Promote healthy and inclusive communities by developing safe sustainable travel modes that respect the local built and natural environment.	Consideration could be given through this ETP Objective of the need to recognise the valuable function ecological networks can bring in making active travel networks attractive places to use. More specific note could also be made of the need to recognise the importance of a range of environmental features such as geodiversity, landscape / townscape, the water environment, soils and agriculture resources and the historic environment in transport scheme design. In addition, the need for coordination with land use planning could be emphasised.
Objective 4: Reduce unnecessary use of the private car by implementing effective demand management measures.	This ETP Objective could be strengthened through an emphasis on the need for coordination with land use planning.

ETP element	Overview and Recommendations
Objective 5: Improve air quality and the environment by encouraging the use of sustainable travel modes and vehicles which utilise sustainable fuels.	This ETP Objective could be strengthened through an emphasis on the need for coordination with land use planning.
Objective 6: Enhance the resilience and safety of the transport network to support the economy and meet the challenges of climate change.	No recommendations made.
Objective 7: Support the efficient, sustainable movement of goods and people and enhance connectivity to regional networks including access to airports and ports.	Specific note should be made in this ETP Objective of the need to for the movement of goods and people to be done sustainably. Text should also be incorporated to recognise the importance of community safety in transport infrastructure

As noted above, it is considered that additional elements could be added to discrete aspects of the Objectives to address the full range of sustainability – this would help ensure that considerations of sustainability are fully embedded in all aspects of the ETP. For the most part though, additional emphasis could be placed within supporting text to the Objective, or through other elements of the ETP. Particular areas where it is considered that additional consideration is required include the need to ensure that movement of goods and people is done sustainably, that there is a need for coordination with land use planning, as well as greater detail on how environmental issues will be addressed. As such, it is anticipated that the ETP and the understanding of how it interacts with Sustainability would benefit from a specific section and detailed text relating to Sustainability as a whole, but in particular those environmental aspects where there is clear uncertainty of outcome at present.

10.3 Summary of new ETP Elements

Further updates to the ETP and its vision and objectives have been made and the recommendations of the compatibility assessment taken into consideration where possible. Whilst the final vision and objectives have not undergone another compatibility assessment, it is noted that where recommendations have been implemented the degree of compatibility has been strengthened. For example, reference to sustainable transport has been added to Objectives 3 and 5 and in Objective 7 note has been made of the need to for the movement of goods and people to be done sustainably as per the recommendation. The vision has also been updated to include connected communities and mention of accessible and inclusive region. It is also the case that stakeholder and public views were considered and the vision and objectives amended to reflect.

11. ETP Guiding Principles

The ETP has adopted a 'Place and Movement Framework' (PMF) approach in developing the long-term vision for change across the region's transport network. Nine PMF categories have been applied across the ETP transport network and a series of guiding principles have been developed to align with each category, confirming priorities by travel mode and geography.

In defining a PMF for each part of the transport network, ETP is committing to ensure that any changes made to the transport network within the Plan period align with the defined modal hierarchies and guiding principles. This includes:

- Any transport schemes identified as part of this Transport Plan will align with the modal hierarchy defined for that part of the network through the relevant Vision PMF; and
- Any other changes to the transport network identified after the publication of the Transport Plan should be developed in accordance with the relevant Vision PMF.

It should be noted that ETP's proposed interventions focus on delivery of specific transport interventions identified within the Plan and summarised later in this document. However, by delivering the proposals in accordance with these guiding principles, it is anticipated that wider benefits and opportunities can be unlocked. DfI are committed to working collaboratively with the Department for Communities, local councils and other stakeholders to ensure that benefits to the local environment and wider society and economy can be optimised throughout scheme delivery. Commentary assessing the potential wider impacts of each PMF category from an ISA perspective is presented below.

11.1.1 People Places

People Places are defined as 'neighbourhood areas including residential streets that prioritise active travel'. While it would be a wish that this could be applied to the majority of areas, it is recognised in ETP that this is not realistic or necessary for all areas. ETP commits to ensuring that any transport interventions that come forward in these areas within the Plan period (to 2035) prioritise walking and wheeling above all over modes, followed by cycling, bus and finally car.

Such a focus on prioritising walking and wheeling and reducing motorised vehicle use, would likely provide opportunities for sustainability benefits. For example, as well as reducing carbon emissions, such 'People Places' would likely lead to improved air quality in these local areas which would be of particular benefit to a number of vulnerable groups such as children, the elderly and those with certain health benefits. Such groups (along with the wider population) would also benefit from reduced noise and other disturbance leading to reduced stress and increased general wellbeing, as well as reduced chance of accidents (through reduced speeds and vehicle numbers). Interventions made in accordance with the 'People places' recommendations would also help to increase physical activity with likely health benefits for all (though not all groups could benefit to the same degree).

Improved air quality in these local areas would also provide benefits to biodiversity, and, indirectly, to sites designated for nature conservation, through reducing pollution deposition. Such 'people places' would also provide potential benefits to biodiversity by providing opportunities and space for planting, through the focus noted in ETP for unlocking high quality public realm including green community focused spaces. **The ISA would recommend that planting should be with native species, of local provenance and as well as trees, should include wildflowers and other pollinator supporting plants.** In addition to local air quality improvements, such planting could help to sequester carbon (though this would be relatively minimal amounts).

Good quality public realm, increased green space, as well as a reduction in traffic would also likely provide benefits to townscape and help develop a 'sense of place' for people in the area, with potential wellbeing benefits. Reduction in speed limited in certain areas will also help to make the streetscape more appealing and greatly aid overall

tranquillity through a reduction in noise. Revamped public realm, with ‘parklets’ and green spaces alongside pedestrian priority may also provide opportunities to enhance settings of buildings or monuments, Conservation Areas etc. In addition, redevelopment of town centres through, for example, revamping public realm etc. may also provide opportunities to address areas of contamination, invasive species etc.

As well as the built environment, the water environment could also benefit through the reduction in traffic and greater focus on active modes. It can be expected that the potential for pollution runoff from roads will reduce, as will the potential for spillage of hydrocarbons through accidents or during refuelling. The introduction of green spaces such as ‘Parklets’ will also provide opportunities to develop SuDS. The use of SuDS, as well as development of green spaces will also allow for a reduction in flood risk and help to improve climate resilience.

A focus on walking and wheeling in ‘People Places’ would likely reduce fuel use, though it is to be noted that other natural resources would likely be required to upgrade the public realm. Nevertheless, such areas could help to revitalise high street / local economies. These areas would be more attractive for shopping and doing business in and the acknowledged ongoing requirement for private car would allow those who have difficulty utilising active modes, or public transport (such as the elderly or those with certain disabilities or medical conditions) to continue to access such areas.

While there are still uncertainties around affordability of the public transport elements (and which are outside the scope of EPT), there will be an increase in modes which are free (walking), or which can be utilised with a small investment (cycling). This will be of benefit to all groups in the population.

On the whole, it is anticipated that ‘People Places’ would likely result in a range of sustainability benefits, though the ongoing requirement for motorised vehicles would mean that there would still be adverse elements such as carbon emissions and air quality implications. Nevertheless, such vehicles would mean all groups could still access the services and facilities that they need.

11.1.2 Traffic Free Route

Traffic Free Routes are defined as ‘traffic free transport routes facilitating active travel connections, including along greenways’. Opportunities to unlock new traffic-free routes have also been sought during the development of the ETP, aligned with the proposals outlined within the NI Active Travel Delivery Plan. The categorisation of these routes as Traffic Free routes commits that interventions within the plan period will abide to the principles of no cars, goods or motorised vehicles (with the exception of mobility aids) are permitted to traverse the route and where the routes are shared, walking and wheeling takes precedent followed by cyclists.

An increase in traffic free routes, or enhancement to existing routes, would likely lead to a reduction of motor vehicle use, due to the improved accessibility and walkability created, which will lead to a reduced dependency on private car use. It is anticipated that this would lead to an improvement of air quality in the immediate local area and reduce overall carbon emissions. Improvements in overall air quality would be anticipated to be generally beneficial (perhaps significantly) to the overall health of vulnerable groups such as children and the elderly. The reduction of car use would also provide greater opportunity to improve the health of the wider population as the provision of traffic free routes would generally promote an increase in physical activity such as walking, running and cycling.

New traffic free routes, such as an extension to Comber Greenway for example, will give opportunities for regeneration of derelict or unused sites and areas, improving overall public realm and townscape. By creating this new green infrastructure, it gives these areas a new ‘sense of place’ and make the area more appealing for users of the routes. Traffic free routes may give opportunities to improve overall biodiversity, as cleaning up of derelict and unused sites may provide opportunities for planting native species along the greenway, further improving the quality of public realm and streetscape. Additions to the routes like benches, cycle facilities and signage will only improve the quality of the realm and overall streetscape. Removal of traffic may enhance and improve the settings of existing scheduled monuments, listed buildings and conservation areas within the urban centres. The scheme also provides

opportunities to improve the existing streetscape of newly pedestrianised streets, with likely improvements and creation of high-quality public realm areas, and addition of greenspace.

As a result of no traffic on these routes, overall safety will be improved as the reduction in traffic will lead to a reduced risk of road traffic accidents, further improving overall health and safety to vulnerable groups and the wider population – children and the elderly would likely benefit most. Sensitive lighting and other security features should be provided to keep ensure a sense of safety within the route, as well as to protect the safety of vulnerable groups that may use the traffic free routes, for example elderly and lone travellers.

Due to the creation of new traffic free routes, there may be opportunities to promote social inclusion and community cohesion within Belfast with traffic free routes acting as potential to be a welcoming social space connecting different communities, promoting social integration.

11.1.3 People and Movement Places

People and Movement Places can be defined as ‘mixed use places that serve the local community’. The People and Movement Places have been identified in collaboration with the councils to align with locations where there are a cluster of services and facilities on offer to the local community. The councils have identified these locations as areas for densification of new development. The ETP seeks to enhance access to the services already on offer in these locations, encouraging existing and prospective residents to increase the number of trips they make by walking, wheeling or cycling rather than relying on car use to meet their everyday needs.

The provision of people and movement places will likely promote usage of alternative methods of travel from the motor car. Creation of bus infrastructure like high-quality two-way bus lanes and priority at junctions with accessible stopping and waiting facilities will increase efficiency of bus systems which will likely result in increased usage. This will result in a reduction in carbon emissions, improving overall air quality (particularly in local areas and pollution hotspots) and decreasing the risk to vulnerable groups like children and the elderly. Furthermore, people and movement places could allow for raised levels of footfall to economic centres within the area, due to the increased efficiency and accessibility of the schemes. This should strengthen local economies and town / local centres.

People and movement places will likely result in an improvement in overall safety to pedestrians and cyclists. Schemes like prioritised crossing facilities will improve walkability and accessibility, and one lane of low-speed limit car traffic to reduce the risk and severity of road traffic incidents. This will especially benefit vulnerable groups like the elderly and children, who are at higher risk when crossing roadways than the wider population. Increased cycle lanes will most likely reduce the number of cyclists on general roads, reducing the risk of road traffic incidents involving cyclists, though there may be increased risk of conflict between cyclists and pedestrians.

These places give the ETP opportunity to provide high quality streetscape by either creating new places or improving already existing places. This could be through provision of green space, which would mean potential opportunities for an increase in biodiversity by the planting of native species. These parcels of greenspace would likely add to a ‘sense of place’ within the people and movement places and would potentially help to improve overall air quality. Such areas could also contribute to sequestration of carbon emissions, though this would be of limited impact. Gateway features introduced can signify transition into a new neighbourhood, increasing the ‘sense of place’, and improving overall safety, further providing benefits to vulnerable groups and the wider population. This would be achieved by ‘security by design’, with measures like improved lighting or natural surveillance to help improve the sense of security and protect vulnerable groups like lone travellers.

As the creation of people and movement places encourages more convenient travel methods than travelling by car, it will lead to likely increased usage of active travel such as walking and cycling, which is compounded by the creation of new and improved cycle lanes. The lanes will promote active travel, which will lead to a general increase in overall physical health and mental health for local residents, combating sedentary lifestyles. Active travel measures such as cycling could also be beneficial to low-income households as it provides a cheaper alternative to the car or other forms of public transport for whenever these individuals are travelling to work, to shop etc.

Increased cycling and reduction in the number of cars will also further reduce congestion, further improving air quality and cause a reduction in CO_2 emissions.

11.1.4 City and Town Centres

City and Town Centres have been defined as “destination people places that also facilitate high volumes of access”. By their very nature, the majority of city and town centres consist of mixed use areas, serving a wide range of people and purposes.

Within these locations, ETP is committed to ensuring that transport interventions that come forward in these areas within the Plan period (to 2035), prioritise walking and wheeling above all over modes, followed by cycling, public transport, light and heavy goods vehicles and finally car, in line with the defined modal hierarchy.

City and Town Centres will likely be areas with high quality multi-use streets that prioritise pedestrians, cyclists and public transport. These areas will more than likely result in improved accessibility for the general population, with the provision of high-quality pedestrian space and suitable crossing facilities promoting use of the public transport measures.

Creation of bus infrastructure like high-quality two-way bus lanes and priority at junctions with accessible stopping and waiting facilities will increase efficiency of bus systems which will likely result in increased usage. This will result in a reduction in carbon emissions, improving overall air quality (particularly in local areas and pollution hotspots) and decreasing the risk to vulnerable groups like children and the elderly. Furthermore, these areas could allow for raised levels of footfall to economic centres within the area, due to the increased efficiency and accessibility of the schemes. This should strengthen local economies and city and town centres.

Limiting of on street parking could cause improved streetscape, with existing parking bays and spaces replaced with good quality public realm or could provide opportunities for planting trees or other native species. This would provide an improved ‘sense of place’ within the scheme and would help the sequestration of CO_2 emissions (albeit limited amounts) and contribute to the improvement of local air quality.

Furthermore, the improved accessibility would maybe lead to less dependency on cars, meaning people could get to their desired destination conveniently. This reduction in car use would lead to reduced congestion meaning reduced CO_2 emissions and improved air quality especially in local areas and pollution hotspots, with consequent benefits for the young, the elderly, those with certain health conditions and those on low incomes. Encouragement of walking, wheeling and cycling will likely also help reduce the inequality gap as this will potentially benefit lower income families by providing a low-cost alternative to the car.

11.1.5 Quality Mass Movement Routes

Quality Mass Movement Routes have been defined as ‘routes that facilitate high volume movement into urban areas, focused on public transport’. The ETP notes that it is not realistic to expect that this can be achieved uniformly across all streets categorised as Quality Mass Movement Routes. Rather than categorising these streets as Quality Mass Movement Routes, ETP is committing to ensuring that any transport interventions that come forward along these roads within the plan period (to 2035) prioritise bus movements over all other modes.

These routes will more than likely result in improved accessibility for the general population, with the provision of high-quality pedestrian space and suitable crossing facilities promoting use of the public transport measures. This will cater toward vulnerable groups such as elderly people and people with disabilities, which could be achieved by upgrading facilities such as bus stops and implementing changes like the provision of increased disability / elderly priority seating, increased numbers of handrails, ramps for quick and easy wheelchair access etc. This could further be enhanced by limited on street parking and increasing blue badge spaces. Improved bus facilities and accessibility may be beneficial to lower income households, as bus travel may offer a cheaper alternative to travel

than a car, though it should be recognised that some households may already have invested in a car and be reluctant to not utilise it / pay for alternative modes.

New and improved bus facilities will likely establish bus as a convenient alternative travel method to cars, with the schemes goal of 'prioritising bus movements over all over methods of travel'. This promotion of bus travel by high quality, two-way bus lanes with bus priority at junctions will likely result in decreased car use, meaning there will be less emissions and an overall improvement in air quality, especially in local areas and pollution hotspots, because of reduced congestion. The reduced emissions and improved air quality will likely benefit vulnerable groups the most, such as children and elderly people. They are the most susceptible to effects from low air quality. Areas with poor air quality also typically correlate with areas of higher deprivation, populated by those on low incomes and as such these groups could also benefit.

Such routes will likely result in increased safety to pedestrians and cyclists, with high quality pedestrian spaces and suitable crossing facilities, provision of cycle lanes and slow speed car traffic that will likely act to help reduce the likelihood and severity of a collision. 'Secure by Design' measures such as increased lighting at the bus waiting facilities will also improve safety (or a sense of security) and help protect vulnerable people such as lone travellers.

Promotion of bus routes may improve connectivity to the city / town centre, which would likely lead to increased footfall and could be a contributing factor to the revitalisation of the high street. The bus routes would likely contribute to a reduction of cars in city centre, making the area more attractive to shop / walk in which will likely benefit the general population and local business owners. Improved bus systems will also likely improve general connectivity within the ETP, maybe making more areas accessible leading to community integration and potentially promoting cross community relations. Improved bus connections could also reduce isolation within the community, allowing people to connect with friends and family more easily, as well as access the services and facilities that they need. This will be particularly beneficial for older and younger age groups, as well as those with no / limited access to a private car.

While Quality Mass Movement routes are primarily related to improvements in bus services, they would help to promote active travel, by for example provision of shared bus / cycle routes and will likely result with increased cycle use. This will bring general health benefits to the population with an overall improvement in peoples physical and mental health. It could also reduce the inequality gap, with improved cycling infrastructure could offer a low-cost travel method as opposed to bus or car, which would benefit vulnerable groups like lower income households.

Prioritisation of buses would likely lead to greater overall social and economic benefits, as they would lead to quicker and more reliable journey times for passengers and greater access to job or educational opportunities. The convenience and speed of buses will promote bus use, deterring commuters from driving and lead to reduced congestion and an overall increase to air quality. The improved quality of bus services will benefit vulnerable groups like low-income households and people with disabilities, providing a cheaper and convenient method of travelling, giving better connectivity to workplaces and economic centres.

11.1.6 Connecting Movement Routes

Connecting Movement Routes have been defined as 'routes that facilitate connecting movements into urban areas'. Roads in this category help to facilitate access movements within towns and cities, while also accommodating active travel and bus movements as required. The ETP notes that it is not realistic to expect that this can be achieved uniformly across all streets categorised as Connecting Movement Routes as part of this ETP. The ETP also notes a commitment to ensuring that any transport interventions that come forward along these roads within the plan period (to 2035) prioritise active modes including walking, wheeling and cycling.

These routes will likely provide infrastructure that encourages active travel, like cycling and walking, Continuous footway networks with suitable crossing facilities and cycle lanes will generally improve accessibility, walkability and connectivity to different areas within the ETP. This will likely benefit the general population as it encourages active travel leading to improved physical and mental health. It is anticipated that high quality design (incorporating

features such as tactile paving) will also make navigating streets easier for those with disabilities or sensory impairments such as vision loss.

Furthermore, the improved accessibility would maybe lead to less dependency on cars, meaning people could get to their desired destination conveniently. This reduction in car use would lead to reduced congestion meaning reduced CO_2 emissions and improved air quality especially in local areas and pollution hotspots, with consequent benefits for the young, the elderly, those with certain health conditions and those on low incomes. Encouragement of walking, wheeling and cycling will likely also help reduce the inequality gap as this will potentially benefit lower income families by providing a low-cost alternative to the car.

The provision of cycle lanes, on street parking and low speed traffic will likely improve safety in urban areas by reducing the traffic with cycling offering a more convenient travel method leading to reduced cars on the road. The loss of cars on the road will reduce the likelihood and severity of a collision which will protect the general population, with particular benefits for the young, the elderly and those with certain disabilities / sensory impairments such as vision or hearing loss. The limiting of on street parking will likely improve visibility of the footpath, meaning motorists will be able to see potential hazards easier and streets will be easier to navigate. This will protect vulnerable groups like children and the elderly. Low speed traffic will further benefit the wider population as well as vulnerable groups as it is likely this diminished number of cars will lead to a reduction in overall noise levels, with potential improvements in wellbeing.

Limiting of on street parking could cause improved streetscape, with existing parking bays and spaces replaced with good quality public realm or could provide opportunities for planting trees or other native species. This would provide an improved ‘sense of place’ within the scheme and would help the sequestration of CO_2 emissions (albeit limited amounts) and contribute to the improvement of local air quality.

Prioritisation of buses where necessary along these routes would likely lead to greater overall social and economic benefits, as they would lead to quicker and more reliable journey times for passengers and greater access to job or educational opportunities. The convenience and speed of buses will promote bus use, deterring commuters from driving and lead to reduced congestion and an overall increase to air quality. The improved quality of bus services will benefit vulnerable groups like low-income households and people with disabilities, providing a cheaper and convenient method of travelling, giving better connectivity to workplaces and economic centres.

11.1.7 Strategic Movement Routes

Strategic Movement Routes have been defined in the ETP as ‘routes that facilitate movements between the local and regional transport network’. Roads in this category from a crucial part of the wider transport network, helping to facilitate access movements between the strategic transport network (intra-town / city) and the local transport network (intra-town /city). The guiding principles for these routes have been developed to ensure that the transport network can continue to operate efficiently, while unlocking additional road spaces for sustainable modes to form a more integral part of the wider transport network. In response to this, the modal hierarchy for Strategic Movement Routes places the needs of active travel routes (cycling, walking and wheeling) lower than the needs of vehicular movements. There will be exceptions to this general rule, however overall, Strategic Movement Routes will focus on enabling the efficient movement of people and goods by with targeted enhancements to highway facilities including junctions, provision of new park and ride services, with convenient access from strategic routes, and higher average traffic movement speeds compared to other roads. These measures will improve overall connectivity of people and goods through regional connectivity, though depending upon scale and precise location, they may have implications for the environment such as through impacts to landscape / townscape, the water environment, biodiversity, air quality and so on.

Connecting these routes into new and existing park and ride schemes will likely bring wider benefits to all groups. These schemes provide a cost effective, convenient and stress-free option, and will likely facilitate the reduction of traffic in urban centres. These schemes could lead to an improvement in air quality in urban centres, reduction in

carbon emissions, improved traffic flow and a reduction of noise. This could give wider benefits to vulnerable groups like children and elderly people who are more susceptible to the effects of poor air quality and high noise levels.

Prioritisation of buses where required could also add further benefits, with reduced journey times and providing a more convenient way to travel, which will likely increase bus use and lead to less congestion and therefore lead to improved air quality and reduction in carbon emissions. However, park and ride facilities will likely lead to some negative effects for the local area where its built. These facilities will likely cause an increased number of cars, leading to higher noise levels and a reduction in air quality. Park and ride facilities will likely be built on greenfield sites on the outskirts of major towns, causing potential loss of biodiversity and greenspace, further contributing to the reduction of air quality. Elevated levels noise pollution could potentially lead to negative effects on existing animal populations such as habitat abandonment, increased mortality rates and reduced reproductive success. There is also a risk of increased flooding with the addition of a large impermeable surface could potentially lead to large amounts of surface runoff and flooding, which could further impact animal habitat. Additionally, pollution from cars like oil leaks etc will likely runoff into waterways and cause additional pollution to animal habitats.

Strategic road and rail networks will likely bring economic and social benefits to the wider population. These networks will likely enable fast and reliable delivery of goods and services, potentially leading to increased economic activity. The network will likely give the general population better access to city / town centres, potentially leading to increased footfall and as such help revitalise the high street. Effective bus and rail networks and connections will likely be beneficial to vulnerable groups such as elderly people and people with physical disabilities, as it could make areas previously not as accessible to them easier to get which may contain public services, shops, doctors etc.

Provision of cycle lanes, footways and crossing facilities will bring general population wider benefits by promoting active travel, likely increasing bike use and other methods of active travel such as running etc. This will likely lead to increased levels of physical activity within these areas, and lead to improved physical and mental health. Cycle lanes and pedestrian walkways also offer a cheaper and more convenient alternative to travelling by car for short journeys, like to a shop etc. This will likely bring benefits to low-income households, by making these journeys increasingly accessible. It is important to note that schemes including measures to increase walking, wheeling and cycling will likely only be provided where required like where other roads intersect with a Strategic Movement Route and it is deemed suitable to do so etc.

11.1.8 Rural Movement Routes

These routes are A and B roads which are outside of settlement development limits across the ETP area. Proposals for these routes contained within the ETP are considered to be minor infrastructure improvements such as adding safe waiting facilities at bus stops.

Interventions proposed by the scheme are unlikely to have any significant environmental effects due to the likelihood of the any schemes being of small nature. However, there is a potential for some social benefits as these will likely include new bus shelters and safe waiting facilities that will bring improved comfort and safety for the general population and potentially make these modes more accessible, though effects are not likely to be significant.

11.1.9 Regional Strategic Movement Routes

These routes are motorways and A and B roads which fall outside the settlement development limits across the ETP area. These are considered to be part of the strategic transport network and as such fall within the Regional Transport Plan. As such these are not considered further here.

11.2 Intervention types

Reflecting the Guiding Principles set out in ETP, a series of interventions have been detailed, that are broadly representative of the range of Plan proposals. Specific details of proposed interventions are set out in the ETP. Note that this list of intervention types will be further added to as the ETP develops to cover the full Plan area.

The intervention types under which the individual interventions have been grouped and assessed are set out in Table 11-1 alongside a description of what they involve.

Table 11-1 - Intervention Types

Intervention Type	Description
Introduction of new or extended bus lanes	Bus lanes will help to facilitate fast and efficient journeys by bus. The proposals in this category include introduction of a mixture of bi-directional and one-way bus lanes that separate buses from general traffic. Bus lanes will be achieved largely as a result of road space reallocation away from general traffic.
Updated bus or BRT timetables / routeings	The proposed amendments to bus routes and timetables are less complex and more attractive to both current and prospective bus users, aiming to improve bus frequencies while maintaining overall accessibility.
Introduction of new BRT services	The introduction of new BRT routes will result in improved service frequencies and reliable journey times, supported by high levels of bus priority, high quality halts including level boarding and off-bus ticketing, delivered using tram-style bus vehicles.
Increased priority for walking and wheeling	Increasing priority for walking and wheeling through introduction of expanded pedestrianised (or largely pedestrianised) areas will increase the level of separation for these modes from motorised traffic, supporting safety and unlock opportunities for enhanced public realm. The design of these routes will align with best practice to either enable safe sharing of space between pedestrians and cyclists or to deliver suitable separation where it is needed.
Upgrades to footpaths and crossings	These interventions will facilitate easy and safe walking and wheeling journeys through enhancements to existing footways and provision of new crossing facilities at appropriate locations. Treatments to be considered within this area include footway widening, raising and dropping kerbs and improved wayfinding, priority at signals and lighting to ensure safe and easy access for all users.
Introduction of new or extended cycle lanes	Cycle lanes will help to facilitate safe and more convenient journeys by bike. The proposals in this category include introduction of a mixture of bi-directional and one-way cycle lanes that separate cyclists from general traffic where necessary. The design of these routes should align with best practice to either enable safe sharing of space between pedestrians and cyclists or to deliver suitable separation where it is needed. Cycle lanes will be achieved largely as a result of road space reallocation away from general traffic.
Introduction of new or extended traffic-free routes	New or extended traffic-free routes will be introduced to accommodate efficient and safe walking, wheeling and cycle movements in a way that is completely separated from motorised traffic.
Parking (reduction in parking capacities, changes to charges and intro of RPZs)	Interventions related to car parking will focus on the rationalisation of parking spaces and a review of parking charges, in line with a policy of encouraging increased use of sustainable transport modes. Parking supply will seek to accommodate only those journeys that cannot otherwise be made by public transport or active travel and providing for those that live in or close to the area. As

Intervention Type	Description
	such, a review of residents parking zones will be required to limit any unintended impacts on surrounding residential areas.
Park and ride	Introduction of new Park and Ride facilities to encourage the use of sustainable transport.
New travel hubs	The hubs will provide space to focus bus stopping and layover activity in designated areas will also unlock 'far siding' opportunities for bus journeys. The hubs will incorporate new and improved mobility facilities such as bike hire and secure bike storage facilities to support onward journeys via active modes. Wider walking, wheeling and cycling proposals will deliver improved quality of footways, crossings, cycle paths and wayfinding to ensure that onwards journeys can be accommodated safely and conveniently.
Speed limit reduction	New 20mph speed limits will be put in replace to reduce vehicle speeds on highways. It is noted that greatest speed limit reductions are achieved when signage is accompanied with wider traffic calming measures.
Highways (new highway / junction schemes)	New highway or junction infrastructure will be introduced where needed to improve connectivity and reduce congestion on alternative routes.
Other	Schemes which do not fall within any of the intervention types identified.

Table 11-2 below provides an overview of the intervention types and the areas of the ETP which they are applicable within. *This will be updated as information from each plan becomes available*.

Table 11-2 - Intervention Type by Area

Intervention Type	Belfast City Centre	Metropolitan Area	Antrim and Newtownabbey Borough Council	Ards and North Down Borough Council	Mid and East Antrim Borough Council	Lisburn and Castlereagh City Council
Introduction of new or extended bus lanes	✓	✓				
Updated bus or BRT timetables / routeings	✓	✓				
Introduction of new BRT services	✓	✓				
Increased priority for walking and wheeling	✓	✓				
Upgrades to footpaths and crossings	✓	✓				
Introduction of new or extended cycle lanes	✓	✓				
Introduction of new or extended traffic-free routes	✓	✗				
Parking (reduction in parking capacities, changes to charges and intro of RPZs)	✓	✓				
Park and ride	✗	✓				
New travel hubs	✓	✓				
Speed limit reduction	✓	✓				
Highways (new highway / junction schemes)	✗	✓				

12. Assessment of Interventions

The following sets out an overview of each area set out within the ETP and the assessment of intervention types proposed within that area.

12.1 Belfast City Centre

As noted in the ETP, Belfast city centre plays a significant role in the regional and national economy, acting as a key employment and retail centre as well as a draw for tourists from across the globe. While compared to cities of a similar size elsewhere in the UK and Europe, the city centre's resident population has historically been low. Belfast City Council intend to facilitate ambitious population growth through sustainable residential development, resulting in a total population within the city region of over 400,000 by 2035. To support this, Belfast City Council have identified a need for 8,000 new homes to be accommodated within the city centre by 2035. The planned housing growth in the city centre represents 25% of the total housing growth planned within the council area; this is reflective of the Council's ambition to concentrate higher density housing developments in locations that benefit from high accessibility, to help maximise the use of existing infrastructure.

The city centre plays an important 'movement' and 'place' function for the wider area. The transport network in the city centre acts as the confluence of many radial corridors and public transport links, facilitating both long distance strategic transport movements as well as local commuter and destination movements. The city centre also serves as a destination place for many people to spend time in, rather than just pass through. The existing operation of the city centre transport network gives rise to conflicts between these uses which needs to be carefully managed.

Historic focus on road building has led to the creation of a city centre transport network that allows car traffic to dominate and detract from the 'place' function of key city centre assets. The last large scale changes to the city centre transport network were brought in as part of the 'Belfast on the Move' in 2012. The main aim of these proposals was to reorganise traffic management within the city centre to facilitate a reduction in general traffic levels and encourage greater walking, cycling and public transport use.

Whilst 'Belfast on the Move' was successful, there remains a number of areas where further improvements can be made: Walking and wheeling is currently prioritised within the retail core, where existing traffic restrictions mean that some streets are entirely or partially pedestrianised. Footways and crossings across the remainder of the city centre are of mixed standards. Cycling infrastructure, including cycle lanes, are provided along some streets, however the existing lanes are of varying quality and do not connect well with each other, city centre attractors or the wider cycling network. Bus lanes have been implemented along some key streets, however the noncontinuous nature of these through the city centre means that pinch points remain, impacting upon journey times and reliability for services. The proposals set out in the ETP for the City Centre provide a framework to prioritise improvements for the city centre transport network, aiming to turn the curve away from car dominance, towards a more sustainable and accessible future.

The ETP identifies a number of key challenges for the City Centre, as follows:

- Highway infrastructure dominates and causes barriers to pedestrian movements
- Lack of coherent cycle network
- Inconsistent bus priority which can undermine the journey time and reliability benefits gained elsewhere
- High volumes of bus movements and inefficiencies in use of city centre space
- Under-appreciation of key city centre assets
- Parking supply currently located with high level of access from inner ring
- 'Rat running' through city centre streets

The ETP notes a vision-led approach to planning transport, with a focus on creating places for people, built around a healthy, safe, economically strong and carbon neutral vision for the future. ETP proposals for the City Centre seek to improve provision of measures to support walking, wheeling, cycling, and public transport, making these the most convenient and efficient modes of movement. The following sections set out proposals for each of these modes and outlines the ISA approach to assessment of these proposals under linked ‘Intervention Types’. The interventions set out in the ETP for the city centre, and their reference are set out in Table 12-1.

Table 12-1 - City Centre Schemes

Scheme	Scheme Reference	Description	Applicable ISA Intervention Type
Walking and Wheeling			
City centre 20mph speed limit	CC-01	Expansion of existing 20mph zone to cover all city centre streets within the city centre boundary, excluding Westlink and M2/M3, making the city centre a safer and more attractive place to walk or wheel.	▪ Speed limit reduction
Walking and Wheeling improvements in the North of the City Centre	CC-02	Enhanced pedestrian priority will be realised across the city centre through improvements to footways, priority at crossings, enhanced public realm and traffic management measures. The existing walking and wheeling priority area will be expanded through restriction of traffic movements along sections of Academy Street, York Lane, Library Street and Union Street, complementing Department for Communities proposals in the area. Improvements to footways, priority at crossings, traffic restrictions and enhanced public realm along York Street and Royal Avenue will combine with improvements in other areas of the city centre to form a high-quality, continuous pedestrian priority route via the **Civic Spine**. In front of the City Hall, in Donegall Square West and outside Saint George's Market, space will be unlocked for public realm and seating areas through the relocation of bus stands, removal of through traffic and upgrades to footways and crossings.	▪ Increased priority for walking and wheeling ▪ Upgrades to footpaths and crossings ▪ Introduction of new or extended traffic-free routes
Walking and Wheeling improvements to the Primary Retail Core	CC-03	Enhancements to Royal Avenue, Donegall Place, Donegall Square North and Donegall Square West will combine with improvements in other areas of the city centre to form a high-quality, continuous walking and wheeling priority route via the Civic Spine. Surrounding these, improvements to key streets including North Street, Bridge Street and Castle Place will extend the existing area that prioritises walking and wheeling within the core of the city centre.	▪ Increased priority for walking and wheeling ▪ Upgrades to footpaths and crossings ▪ Introduction of new or extended traffic-free routes
Enhanced city centre gateways	CC-04	Enhanced footways and pedestrian priority at crossing facilities at the identified gateways across the city centre will combine with a reduction in traffic lanes to reduce the severing impact of wide highways in the city centre.	▪ Upgrades to footpaths and crossings ▪ Introduction of new or extended cycle lanes ▪ Introduction of new or extended traffic-free routes
Walking and Wheeling improvements in the South of the City Centre	CC-05	A high-quality, continuous walking and wheeling priority route, forming the **Civic Spine**, will connect areas in the south of the city centre with the rest of the city centre via Botanic Avenue, Dublin Road and Bedford Street. Proposed traffic management measures also unlock the opportunity to provide new public space in Clarence Street, which will connect to a key bus route along Adelaide Street. Enhanced pedestrian priority, including upgrades to footways and crossings will also be delivered across the area, complementing other multi-modal proposals.	▪ Increased priority for walking and wheeling ▪ Upgrades to footpaths and crossings ▪ Introduction of new or extended traffic-free routes ▪ Parking (reduction in parking capacities, changes to charges and intro of RPZs)
Cycling			
Cycling improvements in the North of the City Centre	CC-06	New segregated and shared cycle routes will be delivered across the North of the city centre, delivered alongside wider multi-modal improvements. These include delivery of two-way segregated cycle routes via the inner ring, connecting all areas of the city centre together to provide faster, convenient and safe cross-city connections for cyclists. New and upgraded segregated and shared options for cyclists to connect between the wider Metropolitan Area and the core of the city centre will be delivered.	▪ Upgrades to footpaths and crossings ▪ Introduction of new or extended cycle lanes ▪ Introduction of new or extended traffic-free routes ▪ Increased priority for walking and wheeling
Cycling improvements to the Primary Retail Core	CC-07	While many of the new and enhanced cycle routes will converge on the core of the city centre, transport interventions in the Primary Retail Core will focus on enhancing the walking and wheeling environment and connectivity rather than creation of new segregated routes. Provision of safe and conveniently located cycle storage will be provided in strategic locations on entry to the Primary Retail Core. Shared facilities for cyclists will be delivered as part of multi-modal improvements in this area, including along the **Civic Spine** and east-west across Castle Street, Castle Place and High Street.	▪ Upgrades to footpaths and crossings ▪ Introduction of new or extended cycle lanes ▪ Increased priority for walking and wheeling

Scheme	Scheme Reference	Description	Applicable ISA Intervention Type
Cycling improvements in the South of the City Centre	CC-08	New segregated and shared cycle routes will be delivered across the southern part of the city centre alongside upgrades to existing routes. These will connect to priority radial corridors, Belfast Grand Central Station and the rest of the city centre. Enhancements to existing cycle lanes along Dublin Road and new segregated connections via Bedford Street will connect into multi-modal improvements to the **Civic Spine**.	▪ Upgrades to footpaths and crossings ▪ Introduction of new or extended cycle lanes ▪ Introduction of new or extended traffic-free routes ▪ Increased priority for walking and wheeling
Bus			
Bus priority in the North of the City Centre	CC-09	Delivery of bus lanes along northern sections of both Donegall Street, North Street, around the inner ring and connecting to key radial corridors will improve bus journey times and reliability across and into the city centre. These may also be crucial links to provide access to the proposed new northern travel hub. Bus only links will also be delivered alongside walking and wheeling improvements and restriction of general traffic in front of and behind City Hall which will enhance waiting facilities.	▪ Introduction of new or extended bus lanes ▪ Updated bus or BRT timetables / routeings ▪ Increased priority for walking and wheeling ▪ Upgrades to footpaths and crossings ▪ Introduction of new or extended cycle lanes ▪ Introduction of new or extended traffic-free routes
Bus routing changes to the Primary Retail Core	CC-10	While many of the new and enhanced bus routes will converge on the core of the city centre, transport interventions in the Primary Retail Core will focus on enhancing the pedestrian environment and enhancing connectivity rather than facilitating bus routes. Accessibility to the primary retail core will be maintained through the enhanced bus journey times and reliability to its edges, as well as through the introduction of Glider services along the **Civic Spine**.	▪ Introduction of new or extended bus lanes ▪ Updated bus or BRT timetables / routeings ▪ Increased priority for walking and wheeling ▪ Upgrades to footpaths and crossings ▪ Introduction of new BRT services
Bus priority in the South of the City Centre	CC-11	Delivery of bus lanes along Adelaide Street, supported by improved bus waiting facilities, will improve bus journey times and reliability across the city centre and reduce overcrowding at bus stops. This priority will connect into extended bus lanes around the inner ring as well as to the planned sustainable transport corridor via Bankmore Street and a new southern travel hub.	▪ Introduction of new or extended bus lanes ▪ Updated bus or BRT timetables / routeings
Bus stop upgrades	CC-12	The quality of bus stops will be reviewed and enhanced across the city centre, including expanding provision of real time passenger information, seating and shelters.	▪ Updated bus or BRT timetables / routeings
Bus routing changes	CC-13	In order to realise the benefits of far siding, create routing efficiencies and maximise the use of new bus lanes, bus service routings through the city centre will be reviewed and refined. Changes will aim to maximise accessibility for passengers, helping people to make quicker and more reliable end to end journeys via sustainable modes.	▪ Updated bus or BRT timetables / routeings
Bus Rapid Transit			
Glider routing changes	CC-14	Alongside the review of city centre bus routeings, changes to existing and new Glider routings will be implemented. These will realise the benefits of far siding, create routing efficiencies and maximise the use of new bus lanes. Changes will include allowing Glider services to penetrate the core of the city centre via a Glider-only link along Royal Avenue and Donegall Place. This will help passengers to reach city centre attractions via the region's most accessible mode of public transport. Safety in this walking and wheeling priority area will be managed through very low vehicle speeds and careful street design.	▪ Updated bus or BRT timetables / routeings ▪ Introduction of new BRT services
Belfast Rapid Transit 3 via Shore Road	CC-15	Shore Road has been identified as a priority corridor for delivery of future Glider services. During the Plan period, further appraisal and design work will be undertaken, leading to refinement and delivery of the BRT3 proposals. It is expected that the BRT3 route will travel into the city centre via bus lanes on York Street, running past Ulster University, traversing the city centre and connecting to the existing rapid transit network.	▪ Introduction of new BRT services ▪ Updated bus or BRT timetables / routeings ▪ Introduction of new or extended bus lanes
Belfast Rapid Transit 3 via Lisburn Road	CC-16	Lisburn Road has been identified as a priority corridor for delivery of future Glider services. During the Plan period, further appraisal and design work will be undertaken, leading to refinement and delivery of the BRT3 proposals. It is	▪ Introduction of new BRT services ▪ Updated bus or BRT timetables / routeings ▪ Introduction of new or extended bus lanes

Scheme	Scheme Reference	Description	Applicable ISA Intervention Type
		expected that the BRT3 route will travel into the city centre via bus lanes on Lisburn Road, via Shaftesbury Square and Great Victoria Street, traversing the city centre and connecting to the existing rapid transit network.	
Travel Hubs			
Travel Hubs	CC-17	During the Plan period, two new travel hubs will be developed and delivered. Appraisal, design and delivery of the sites will be progressed following appropriate guidance and aligning with relevant planning requirements. Engagement with local communities and other relevant stakeholders will be undertaken throughout scheme development and design stages.	▪ New travel hubs
Traffic management			
Traffic management North of the City Centre	CC-18	To realise the significant improvements to the sustainable transport network across the North of the City Centre, traffic management measures will be put in place including road space reallocation away from private vehicles. Key streets where this is proposed are Fisherwick Place, College Square East, College Avenue, Millfield, Carrick Hill, North Queen Street, Frederick Street, Great Patrick Street, Dunbar Link, Victoria Street, Albert Square, Waring Street, Donegall Quay, Ann Street, Oxford Street, May Street and Cromac Street. In these locations on-street parking, traffic directionality changes and in some cases, roads will be closed to through traffic (including along York Street). This also includes making Oxford Street two-way for general traffic, enabling priority for sustainable modes along Victoria Street. Access will be retained for those that need it, including for loading / unloading.	▪ Increased priority for walking and wheeling ▪ Parking (reduction in parking capacities, changes to charges and intro of RPZs) ▪ Introduction of new or extended traffic-free routes
Traffic management within the Primary Retail Core	CC-19	To realise the significant improvements to the sustainable transport network within the Primary Retail Core, including the expansion of the walking and wheeling priority area, traffic management measures will be put in place. These will include further access restrictions for through traffic, with access limited to those who need to be there (e.g. for loading activity or to access or service properties and businesses). On-street parking provision will also be reduced, with accessible parking bays located away from pedestrianised streets to other nearby, suitable locations.	▪ Increased priority for walking and wheeling ▪ Parking (reduction in parking capacities, changes to charges and intro of RPZs) ▪ Introduction of new or extended traffic-free routes
Traffic management South of the City Centre	CC-20	To realise the proposed enhancements to sustainable transport network across the South of the City Centre and to reduce known challenges relating to rat running, changes to traffic movements will be required. This will include directionality changes and limiting access for general traffic on certain streets. In particular, restrictions will be added to the streets around City Hall, and within the area to the south of May Street. Road space reallocation and a reduction in on-street parking provision will also be delivered.	▪ Increased priority for walking and wheeling ▪ Parking (reduction in parking capacities, changes to charges and intro of RPZs) ▪ Introduction of new or extended traffic-free routes
Road space reallocation and closure to general traffic	CC-26	Streets within the core of the city centre, aligning closely with the walking and wheeling priority area, have been identified to be closed to general traffic. This will ensure that vehicles will no longer be able to use these streets as a means to cross the city centre between 0700-1900. Road space will be reallocated away from on-street parking to realise the expansion of cycle and bus lanes, provide development potential and unlock new public amenity space. The long-term vision for car parking within Belfast city centre focuses on the rationalisation of parking spaces and a review of parking charges, in line with a policy of encouraging increased use of sustainable transport modes.	▪ Introduction of new or extended bus lanes ▪ Increased priority for walking and wheeling ▪ Introduction of new or extended cycle lanes ▪ Parking (reduction in parking capacities, changes to charges and intro of RPZs) ▪ Introduction of new or extended traffic-free routes
Other			
City centre kerbside review	CC-21	As part of a wider city centre kerbside review, on-street parking provision will be rationalised to accommodate proposed improvements to walking, wheeling, cycling and bus priority. The locations of accessible parking bays, along with new provision for taxis, coach drop off/pick up and tourist buses will be reviewed. Changes are expected to enhance provision and facilitate easier access to key destinations.	▪ Parking (reduction in parking capacities, changes to charges and intro of RPZs)
Update to Belfast City Centre Core Parking Zone Boundary	CC-22	The core zone has been brought into line with Belfast City Councils LDP City Centre boundary. The zone now includes the Grand Central Station, as it is a regional transport interchange and highly accessible by sustainable modes. In addition, there are a number of redevelopment proposals within the City Centre boundary and their inclusion within this area will limit the dominance of car use.	▪ Parking (reduction in parking capacities, changes to charges and intro of RPZs)

Scheme	Scheme Reference	Description	Applicable ISA Intervention Type
Update to Belfast City Centre Fringe Parking Zone Boundary	CC-23	The city centre fringe zone has been extended to represent a 10 minute walk time from the core zone. The change allows for areas around Queens Island and Queen's Quarter to be included within the Fringe zone of Belfast.	▪ Parking (reduction in parking capacities, changes to charges and intro of RPZs)
Blue Badge and Accessible Bays	CC-24	Retaining convenient access for Blue Badge holders is a key priority. There are currently approximately 60 dedicated Blue Badge parking bays available on city centre streets (2025). While some of these bays may need to be relocated, the overall provision is expected to increase across the Plan period.	▪ Parking (reduction in parking capacities, changes to charges and intro of RPZs)
Introduction of new residents parking zones	CC-25	To help to manage the potential impacts of city centre parking restrictions on surrounding residential communities, it is anticipated that residents parking zones will be expanded across areas within a ten-minute walk time. This will help to eliminate the possibility of commuters and other parking occurring within residential streets for access to city centre amenities. New residents parking zone will be developed in collaboration with the local community and in accordance with DfI Policy.	▪ Parking (reduction in parking capacities, changes to charges and intro of RPZs)

12.1.1 Walking and wheeling

The Plan proposes improvements to the quality walking and wheeling network across Belfast city centre, including linking it up to key retail, commercial, leisure and transport destinations within and outside of the centre. In doing so, ETP aims to remove perceived and physical barriers that may currently impact people's journeys, linking communities and residential areas to key attractors in the city centre, and improving the public environment in the area.

ETP defines both a long-term vision for walking and wheeling in Belfast city centre, as well as identifying specific schemes for delivery within the Plan period. By ensuring that the identified schemes, along with any other schemes that are identified following the publication of the Plan, align with the identified vision, interventions should combine to form a cohesive and successful package of improvements.

The vision identifies walking and wheeling priority areas which will comprise high quality public spaces, where walking or wheeling is the easiest and most attractive method of moving around. The place function of the city centre in these areas will also be enhanced and opportunities for on-street dining, parklets and events spaces will be unlocked. While vehicular movements may still be permitted in some locations for access requirements, motorised vehicles will be treated as the guests in these spaces, maintaining a priority for walking and wheeling throughout. The streets identified include existing pedestrianised zones within the retail core, as well as new streets to the south and east of the city centre.

The five ETP schemes considered for the City Centre in relation to walking and wheeling are as listed below, with further detail on the schemes and their descriptions included in Table 12-1:

- **CC-01** - City centre 20mph speed limit
- **CC-02** - Walking and Wheeling improvements in the North of the City Centre
- **CC-03** - Walking and Wheeling improvements to the Primary Retail Core
- **CC-04** - Enhanced city centre gateways
- **CC-05** - Walking and Wheeling improvements in the South of the City Centre

The six intervention types applicable to these schemes and considered for ISA assessment are:

- Speed limit reduction
- Increased priority for walking and wheeling
- Upgrades to footpaths and crossings
- Introduction of new or extended traffic-free routes
- Introduction of new or extended cycle lanes
- Parking (reduction in parking capacities, changes to charges and intro of RPZs)

The findings of these intervention type assessments are set out as follows:

Table 12-2 – City Centre Walking and Wheeling SEA Scores

		SEA Objective														
		Emissions		Environmental									Economic		Social	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Speed limit reduction																
Construction	Positive Residual Effects	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Negative Residual Effects	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Operation	Positive Residual Effects	+	+	0	+	0	0	0	0	0	0	0	0	+	++	++
	Negative Residual Effects	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0
Increased priority for walking and wheeling																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	-	-	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	-	-
Upgrades to footpaths and crossings																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	-	-	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	-	-
Introduction of new or extended cycle lanes																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	-	-	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	-	-
Parking (reduction in parking capacities, changes to charges and intro of RPZs)																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	0	0	0	0	0	0	0	0	0
Operation	Positive Residual Effects	++	++	0	+	0	0	0	0	0	0	0	+	+	+	+
	Negative Residual Effects	0	0	0	0	0	0	0	0	0	0	0	0	0	-	--
Introduction of new or extended traffic-free routes																

		SEA Objective														
		Emissions		Environmental									Economic		Social	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	+	+	+	0	0	0
	Negative Residual Effects	-	-	-	-	-	-	-	-	-	-	-	0	0	-	-
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	+	+	++	++	++
	Negative Residual Effects	0	0	0	-	0	0	0	-	0	0	0	0	0	0	0

12.1.1.1 SEA summary

No significant effects are anticipated during construction of the intervention types considered under walking and wheeling for Belfast city centre.

During operation, moderate positive effects are anticipated in relation to Air Quality (Objective 1) and Climate (Objective 2) for all intervention types, with the exception of Speed limit reduction where minor positive effects are anticipated. This is a result of improvements for walking and wheeling which would encourage a modal shift away from vehicle use to more sustainable transport options, and therefore lead to a reduction in vehicle emissions.

Moderate positive effects are also anticipated in respect of the economy (Objectives 12 and 13) for Increased priority for walking and wheeling, Upgrades to footpaths and crossings and Introduction of new or extended cycle lanes as a result of reduced congestion, improved access and connectivity for all, aiding economic growth and facilitating movement of goods and services. Moderate positive effects are also anticipated in respect of Objective 13 for Introduction of new or extended traffic-free routes due to reduced congestion facilitating movement of goods and services.

Improved health and well-being (Objective 14) is also expected due to increased physical activity and as increased uptake of walking would reduce vehicle use and associated GHG for Speed limit reduction, Increased priority for walking and wheeling, Upgrades to footpaths and crossings Introduction of new or extended traffic-free routes and Introduction of new or extended cycle lanes.

Significant positive effects are also anticipated for greater equality of opportunity (Objective 15) for Speed limit reduction and Introduction of new or extended traffic-free routes due to the anticipated safer streets particularly for children, elderly, disabled and pregnant women but all groups will benefit, by slowing traffic, reducing vehicle use and air pollution.

Significant adverse effects are anticipated during operation for Parking (reduction in parking capacities, changes to charges and intro of RPZs) in terms of greater equality of opportunity (Objective 15) as affordability of charges may restrict car usage among some socio-economic groups.

The HRA Stage 1 Screening identified potential for adverse effects for the majority of Walking and wheeling interventions as they may involve works to complete improvements to transport infrastructure. The potential for adverse effects is subject to design and location. No LSE were anticipated in relation to CC-01 (City centre 20mph speed limit) as it will not lead to development and will reduce emissions which would have a positive impact on the environment. The HRA Stage 2 ‘Appropriate Assessment’ reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.

Due to expected similar impacts, intervention types have been grouped together for HIA, EqIA and Rural Needs Assessments.

Table 12-3 – City Centre Walking and Wheeling HIA, EqIA and Rural Needs Assessment Scores

	HIA Objective									EqIA Objective						Rural Needs Objective		
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	1	2	3
Speed limit reduction																		
Assessment Summary	++	0	++	+	+	++	++	0	++	++	0	++	0	+	++	0	0	+
Cycling & Walking and Wheeling ▪ Introduction of new or extended cycle lanes ▪ Increased priority for walking and wheeling ▪ Upgrades to footpaths and crossings ▪ Introduction of new or extended traffic-free routes																		
Assessment Summary	++	++	++	+	++	++	++	+	++	++	++	++	+	+	++	0	0	+
Parking ▪ Parking (reduction in parking capacities, changes to charges and intro of RPZs)																		
Assessment Summary	+	--	+	+	+	+	0	0	+	+	--	+	0	+	+	0	0	0

12.1.1.2 HIA summary

The HIA found significant beneficial effects are anticipated for Speed limit reduction and Cycling & Walking and Wheeling as there will be increased opportunity and priority to walk and wheel will result in much greater access to this mode of active travel, which would improve access to employment, health, leisure services and facilities (Objective 1) and will be of benefit to all groups although benefits may not be as significant for older people or those with health issues or disabilities who may not be able to utilise cycling or walking as a mode of transport.

Significant beneficial effects are anticipated for cycling & walking and wheeling interventions as although they would have no direct effect on affordability (Objective 2), they will allow easier access to public transport for those with no access to a private car. Greater active travel provision will allow more journeys to a greater variety of destinations to be made by low / zero cost modes, with benefits for those on lower incomes although it should be noted though that not all may be able to afford the purchase of cycling equipment or public transport.

Provision of segregated active travel routes with good design standards etc., as well as a reduction in travel by other modes, will enhance safety and reduce the number of accidents (Objective 3), with particular benefits for pedestrians and cyclists. Connections between and within communities (Objective 5) will be improved by new and improved active travel routes, though all groups may not all be able to avail of these connections to the same degree. Air and noise pollution (Objective 6) will be reduced through reduced car use expected due to the greater opportunity to cycle, walk and wheel. Benefits would be most experienced at a local level, though all groups would benefit particularly children and individuals with certain health conditions, who are especially vulnerable to poor air quality.

Providing new and improving existing cycle, walk and wheel infrastructure will improve the access to active travel (Objective 7) therefore tackling issues such as inactivity, obesity and improving stress levels. All groups will benefit, though not all (e.g. elderly, those with certain disabilities) will be able to avail to the same degree and for some, access to private vehicles may still be required. Access to public transport will be improved (Objective 8) through Bus and BRT Upgrade interventions with major beneficial effects anticipated for all groups. Provision of cycle and walking and wheeling infrastructure which provides the opportunity to include features such as lighting will provide a safer environment (Objective 9) for active travel and reduce the risks associated with cycling on roads alongside vehicles.

Significant adverse effects are anticipated for Parking interventions in relation to affordability of transport (Objective 2) as there will be increased costs which may affect those on low incomes disproportionately.

12.1.1.3 EqIA summary

The EqIA found moderate beneficial effects as a result of increased opportunity and priority to walk and wheel, improved cycle links, improvements to bus lanes and a speed limit reduction will result in much greater access to active travel, which would improve access to employment, health, leisure services and facilities (Objective 1) and will be of benefit to all groups. It is noted that benefits may not be as significant for older people, the disabled / those with certain impairments or those who are pregnant (particularly those in later stages of pregnancy) who may not be able to utilise cycling, walking or buses as a mode of transport.

While the cycling & walking and wheeling interventions would have no direct effect on affordability (Objective 2), they will allow easier and greater access to public transport for those with no access to a private car, though of course not all may be able to afford the purchase of bicycles or scooters. Significant adverse effects are anticipated for Parking interventions in relation to affordability of transport (Objective 2) as there will be increased costs which may affect those on low incomes, including ethnic minority groups, the elderly or disabled, disproportionately.

Provision of segregated active travel routes with good design standards etc., as well as a reduction in travel by other modes, will enhance safety and reduce the number of accidents (Objective 3), although it is noted that all groups such as the elderly, disabled or those pregnant (particularly those in later stages of pregnancy) may not be able to avail of active travels to as great an extent as other groups.

Air and noise pollution (Objective 6) will be reduced through reduced congestion and car use expected due to the greater opportunity to walk, wheel and cycle, and reduced speed limits, with all groups benefitting.

12.1.1.4 Rural Needs summary

No significant positive or negative effects were identified in the Rural Needs Assessment. This is a result of the urban nature of the area in question.

12.1.2 Cycling

The Plan proposes improvements to the cycle network in the city centre with a focus on closing gaps in the existing network as well as extending outwards to the wider area. Recognising the Belfast Cycling Network Delivery Plan, key streets have been identified as corridors to focus cycle infrastructure improvements. Suggested infrastructure improvements include provision of segregated cycle lanes where protection from other road users is required.

The ETP notes that across the city centre, including at existing and new transport interchanges, improved infrastructure to enable safe street-sharing and improved storage of bicycles will also be provided. The multi-modal transport interchanges may include future facilities such as bike and scooter hire. These will be linked into both the cycling and wider sustainable transport network, enabling seamless end-to-end journeys.

The three ETP schemes considered for the City Centre in relation to cycling are as listed below, with further detail on the schemes and their descriptions included in Table 12-1:

- **CC-06** - Cycling improvements in the North of the City Centre
- **CC-07** - Cycling improvements to the Primary Retail Core
- **CC-08** - Cycling improvements in the South of the City Centre

The four intervention types applicable to these schemes and considered for ISA assessment are:

- Upgrades to footpaths and crossings
- Introduction of new or extended cycle lanes
- Introduction of new or extended traffic-free routes
- Increased priority for walking and wheeling

The findings of the intervention type assessments are set out as follows.

Table 12-4 - Cycling SEA Scores

		SEA Objective														
		Emissions		Environmental									Economic		Social	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Upgrades to footpaths and crossings																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	-	-	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	-	-
Introduction of new or extended cycle lanes																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	-	-	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	-	-
Introduction of new or extended traffic-free routes																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	+	+	+	0	0	0
	Negative Residual Effects	-	-	-	-	-	-	-	-	-	-	-	0	0	-	-
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	+	+	++	++	++
	Negative Residual Effects	0	0	0	-	0	0	0	-	0	0	0	0	0	0	0
Increased priority for walking and wheeling																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	-	-	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	-	-

12.1.2.1 SEA summary

No significant effects are anticipated during construction of the intervention types considered under cycling in the City Centre.

During operation, significant positive effects are anticipated in relation to Air Quality (Objective 1) and Climate (Objective 2) for all intervention types as it is anticipated that improvements for cycling would encourage a modal shift away from vehicle use to more sustainable transport options, and therefore lead to a reduction in vehicle emissions.

Moderate positive effects are also anticipated in respect of the economy (Objectives 12 and 13) for a number of the intervention types as a result of reduced congestion, improved access and connectivity for all, aiding economic growth and facilitating movement of goods and services.

Improved health and well-being (Objective 14) is also expected due to increased physical activity and as increased uptake of cycling would reduce vehicle use and associated GHG for all intervention types. Significant positive effects are also anticipated for greater equality of opportunity (Objective 15) for Introduction of traffic-free routes due to the anticipated safer streets particularly for children, elderly, disabled and pregnant women though all groups will benefit.

The HRA Stage 1 Screening identified no Likely Significant Effects (LSE) for the three cycling interventions CC-06 (Cycling improvements in the North of the City Centre), CC-07 (Cycling improvements to the Primary Retail Core) or CC-08 (Cycling improvements in the South of the City Centre) as they involve no or limited development, such as realignment of white lines.

Table 12-5 – City Centre Cycling HIA, EqIA and Rural Needs Assessment Scores

	HIA Objective									EqIA Objective						Rural Needs Objective		
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	1	2	3
Cycling & Walking and Wheeling ▪ Introduction of new or extended cycle lanes ▪ Introduction of new or extended traffic-free routes ▪ Upgrades to footpaths and crossings ▪ Increased priority for walking and wheeling																		
Assessment Summary	++	++	++	+	++	++	++	+	++	++	++	++	+	+	++	0	0	+

12.1.2.2 HIA summary

Due to expected similar impacts, intervention types have been grouped together for HIA, EqIA and Rural Needs Assessments.

The HIA found significant beneficial effects are anticipated as there will be increased opportunity and priority to cycle will result in much greater access to this mode of active travel, which would improve access to employment, health, leisure services and facilities (Objective 1) and will be of benefit to all groups, although benefits may not be as significant for older people or those with health issues or disabilities who may not be able to utilise cycling or walking as a mode of transport.

Significant beneficial effects are anticipated for cycling & walking and wheeling interventions as although they would have no direct effect on affordability (Objective 2), they will allow easier access to public transport for those with no access to a private car. Greater active travel provision will allow more journeys to a greater variety of destinations to be made by low / zero cost modes, with benefits for those on lower incomes although it should be noted though that not all may be able to afford the purchase of bicycles or scooters.

Provision of segregated active travel routes with good design standards etc., as well as a reduction in travel by other modes, will enhance safety and reduce the number of accidents (Objective 3), with particular benefits for pedestrians and cyclists. Connections between and within communities (Objective 5) will be improved by new and improved active travel routes, though all groups may not all be able to avail of these connections to the same degree.

Air and noise pollution (Objective 6) will be reduced through reduced car use expected due to the greater opportunity to cycle, walk and wheel. Benefits would be most experienced at a local level, though all groups would benefit particularly children and individuals with certain health conditions, who are especially vulnerable to poor air quality.

Providing new and improving existing cycle, walk and wheel infrastructure will improve the access to active travel (Objective 7), therefore tackling issues such as inactivity, obesity and improving stress levels. All groups will benefit, though not all (e.g. elderly, those with certain disabilities) will be able to avail to the same degree and for some, access to private vehicles may still be required.

Provision of cycle and walking and wheeling infrastructure which provides the opportunity to include features such as lighting will provide a safer environment for all groups (Objective 9) for active travel and reduce the risks associated with cycling on roads alongside vehicles.

12.1.2.3 EqIA summary

The EqIA found moderate beneficial effects as a result of increased opportunity and priority given to walking and wheeling and improved cycle links will result in much greater access to active travel, which would improve access to employment, health, leisure services and facilities (Objective 1) and will be of benefit to all groups. It is noted that benefits may not be as significant for older people, the disabled / those with certain impairments or those who are pregnant (particularly those in later stages of pregnancy) who may not be able to utilise cycling or walking as a mode of transport. While the cycling & walking and wheeling interventions would have no direct effect on affordability (Objective 2), they will allow easier and greater access to public transport for those with no access to a private car, though of course not all may be able to afford the purchase of bicycles or scooters. Provision of segregated active travel routes with good design standards etc., as well as a reduction in travel by other modes, will enhance safety and reduce the number of accidents (Objective 3), although it is noted that all groups such as the elderly, disabled or those pregnant (particularly those in later stages of pregnancy) may not be able to avail of active travels to as great an extent as other groups. Air and noise pollution (Objective 6) will be reduced through reduced congestion and car use expected due to the greater opportunity to walk, wheel and cycle, and reduced speed limits, with all groups benefitting.

12.1.2.4 Rural Needs summary

No significant positive or negative effects were identified in the Rural Needs Assessment. This is a result of the urban nature of the area in question.

12.1.3 Bus Rapid Transit

Bus Rapid Transit concerns the provision of a customer focused, high-quality, integrated public transport system, which is sustainable, provides good value for money, enhances competitiveness, helps sustain economic growth, promotes regional development and contributes to social inclusion.

All existing and planned Glider routes currently serve and traverse Belfast city centre, however the lack of bus priority in this area undermines journey time savings made by the Glider services in bus lanes on radial corridors. ETP public transport proposals therefore focus on providing improvements to bus infrastructure, including the creation of further Glider only links through the city. These will help to improve journey times, reliability and also allow Glider services to penetrate further into the city core and helping everyone to access their destinations more easily.

In order to facilitate fast and efficient journeys, the required infrastructure along these routes includes bus lanes that separate Glider (and other buses) from general traffic and conveniently located halts. The waiting facilities provided at halts will match the existing Glider halts and include a shelter and seating, suitable lighting, ticket vending machines and real time journey information screens.

The two ETP schemes considered for the City Centre in relation to bus rapid transit are as listed below, with further detail on the schemes and their descriptions included in Table 12-1:

- **CC-14** – Glider routing changes
- **CC-15** – Belfast Rapid Transit 3 via Shore Road
- **CC-16** – Belfast Rapid Transit 3 via Lisburn Road

The three intervention types applicable to these schemes and considered for ISA assessment are:

- Introduction of new BRT services
- Updated bus or BRT timetables / routeings
- Introduction of new or extended bus lanes

The findings of these intervention type assessments are set out as follows:

Table 12-6 - Bus Rapid Transit SEA Scores

SEA Objective															
		Emissions		Environmental									Economic		Social	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Introduction of new or extended bus lanes																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	0	0	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-
Updated bus or BRT timetables / routeings																
Construction	Positive Residual Effects	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Negative Residual Effects	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Operation	Positive Residual Effects	+	+	0	+	0	0	0	0	0	0	0	0	+	0	+
	Negative Residual Effects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Introduction of new BRT services																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Negative Residual Effects	-	-	0	0	0	0	0	-	-	0	0	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	0	+	0	-	+	+	+	+
	Negative Residual Effects	0	0	0	0	0	0	0	-	0	0	0	0	0	0	-

12.1.3.1 SEA summary

Construction effects may occur during implementation of the intervention types considered under Bus Rapid Transit in the City Centre. Works may include carriageway modifications to accommodate the additional weight and concentrated wheel loading associated with Glider vehicles, together with the adjustment, relocation or replacement of ironwork within wheel tracks.

During operation, significant positive effects are anticipated in relation to Air Quality (Objective 1) and Climate (Objective 2) for Introduction of new or extended bus lanes and Introduction of new BRT services as improvements to the bus network would encourage a modal shift away from car use to public transport, and therefore lead to a reduction in vehicle emissions. Moderate beneficial effects are also anticipated in relation economic factors (Objective 12 and 13) for Introduction of new or extended bus lanes through potential improved access and connectivity for all as well as economic growth being aided and facilitating movement of goods and services. Health and wellbeing (Objective 14) is expected to have significant positive effects for this intervention as a result of increased bus usage which would reduce vehicle use and associated GHG, therefore providing health benefits to all citizens.

The HRA Stage 1 Screening identified Likely Significant Effects (LSE) for two Bus Rapid Transit interventions including CC-15 (Belfast Rapid Transit 3 via Shore Road) and CC-16 (Belfast Rapid Transit 3 via Lisburn Road), as there is insufficient detail at this stage to know if it would result in a change of white lines only or other changes, therefore, the precautionary principal has been used. The HRA Stage 2 ‘Appropriate Assessment’ reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.

Due to expected similar impacts, interventions types have been grouped together for HIA, EqIA and Rural Needs Assessments.

Table 12-7 - Bus Rapid Transit HIA, EqIA and Rural Needs Assessment Scores

	HIA Objective									EqIA Objective						Rural Needs Objective		
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	1	2	3
Bus and BRT Upgrades ▪ Introduction of new or extended bus lanes ▪ Updated bus or BRT timetables / routeings ▪ Introduction of new BRT services																		
Assessment Summary	++	+	++	+	++	+	+	+++	+	++	+	++	+	+	+	0	0	+

12.1.3.2 HIA summary

The HIA identified significant positive effects as a result of improvements to the bus network and increased service and coverage will reduce congestion and improve access to employment, educational, health and leisure services and facilities and amenities (Objective 1). Benefits may not be as significant for older people or those with certain health problems who may not be able to utilise bus and glider services as a mode of transport and may still be reliant on private vehicles. It is anticipated Bus and BRT Upgrades will lead to reduced congestion and a more efficient bus network. This would likely reduce the potential for accidents and will reduce stress (Objective 3) in the travelling population – potentially reducing conflict among travellers. As noted groups such as the elderly and disabled may not be able to avail of bus and glider services to as great an extent as other groups, and therefore may not receive the same level of benefits. Connections between and within communities (Objective 5) will be enhanced by the improved bus network and increased service and coverage as well as improved access to cycling, walking and wheeling, with benefits for all groups. Major beneficial effects are anticipated from improvements to the bus network and increased service and coverage will improve access to public transport (Objective 8).

12.1.3.3 EqIA summary

The EqIA identified significant positive effects in relation improvements to the bus network and increased service and coverage which will reduce congestion and improve access to employment, educational, health and leisure services, facilities and amenities (Objective 1). Although, while public transport services are increasing, some groups may have decreased ability to cope with timetable and route changes, such as those with learning difficulties, some Ethnic groups where English may not be their first language and those with sight or hearing issues. It is anticipated Bus and BRT Upgrades will lead to reduced congestion and a more efficient bus network. This would likely reduce the potential for accidents and will reduce stress (Objective 3) in the travelling population – potentially reducing conflict among travellers. Although, it is worth noting that some people from ethnic groups, females, young people, the elderly, those of different sexual orientation or gender reassignment may have perceptions of being more vulnerable on public transport.

12.1.3.4 Rural Needs summary

No significant positive or negative effects were identified in the Rural Needs Assessment. This is a result of the urban nature of the area in question.

12.1.4 Bus

In addition to the Glider services, Metro, Ulsterbus and Goldline services to, from and within Belfast city centre help to provide connections to the wider area. ETP proposes the simplification of bus routings through the city centre, enhanced interchange facilities and provision of additional bus priority measures to complement existing and proposed measures on radial corridors.

The network-wide propositions are designed to provide services which are less complex and more attractive to both current and prospective bus users, and which are thereby better placed to grow patronage. By reducing the number of overlapping route variants, the bus network will become more easily understandable for local and visiting bus users and the bus network becomes more easily scaleable in response to changes in demand.

To facilitate fast and efficient journeys by bus, the required infrastructure along these bus routes includes bidirectional bus lanes that separate buses from general traffic and conveniently located bus stops which include safe and accessible waiting facilities.

These routes are less complex and more attractive to both current and prospective bus users enabling targeted improvement to bus infrastructure, enhanced access to destinations including at transport interchanges, and the release of kerb space to provide high quality public realm.

To accommodate the proposals, road space will be reallocated away from general traffic to allow the introduction of bi-directional bus lanes orbiting and crossing the city centre. Increased permeability of the city core via the front and back of City Hall will be achieved through closing these links to general traffic.

The six ETP schemes considered for the City Centre in relation to Bus are as listed below, with further detail on the schemes and their descriptions included in Table 12-1:

- **CC-09** – Bus priority in the North of the City Centre
- **CC-10** – Bus priority changes to the Primary Retail Core
- **CC-11** – Bus priority in the South of the City Centre
- **CC-12** – Bus stop upgrades
- **CC-13** – Bus routing changes

The seven intervention types applicable to these schemes and considered for ISA assessment are:

- Introduction of new or extended bus lanes
- Updated bus or BRT timetables / routeings
- Increased priority for walking and wheeling
- Upgrades to footpaths and crossings
- Introduction of new or extended cycle lanes
- Introduction of new BRT services
- Introduction of new or extended traffic-free routes

The findings of these intervention type assessments are set out as follows:

Table 12-8 – City Centre Bus SEA Scores

SEA Objective															
		Emissions		Environmental									Economic		Social	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Introduction of new or extended bus lanes																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	0	0	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-
Updated bus or BRT timetables / routeings																
Construction	Positive Residual Effects	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Negative Residual Effects	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Operation	Positive Residual Effects	+	+	0	+	0	0	0	0	0	0	0	0	+	0	+
	Negative Residual Effects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Increased priority for walking and wheeling																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	-	-	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	-	-
Upgrades to footpaths and crossings																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	-	-	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	-	-
Introduction of new or extended cycle lanes																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	-	-	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+

SEA Objective															
		Emissions		Environmental									Economic		Social	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	-	-
Introduction of new BRT services																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Negative Residual Effects	-	-	0	0	0	0	0	-	-	0	0	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	0	+	0	-	+	+	+	+
	Negative Residual Effects	0	0	0	0	0	0	0	-	0	0	0	0	0	0	-
Introduction of new or extended traffic-free routes																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	+	+	+	0	0	0
	Negative Residual Effects	-	-	-	-	-	-	-	-	-	-	-	0	0	-	-
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	+	+	++	++	++
	Negative Residual Effects	0	0	0	-	0	0	0	-	0	0	0	0	0	0	0

12.1.4.1 SEA summary

No significant effects are anticipated during construction of the intervention types considered under Bus in the City Centre.

During operation, significant positive effects are anticipated in relation to Air Quality (Objective 1) and Climate (Objective 2) for the majority of intervention types as improvements to the bus network would encourage a modal shift away from car use to public transport, and therefore lead to a reduction in vehicle emissions. Health and wellbeing (Objective 14) is expected to have significant positive benefits for the majority of intervention types as a result of increased bus usage which would reduce vehicle use and associated GHG, therefore providing health benefits to all citizens.

The HRA Stage 1 Screening identified no Likely Significant Effects (LSE) for the bus interventions due to the limited development such as realignment of white lines.

Table 12-9 – City Centre Bus HIA, EqIA and Rural Needs Assessment Scores

	HIA Objective									EqIA Objective						Rural Needs Objective		
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	1	2	3
Bus and BRT Upgrades ▪ Introduction of new or extended bus lanes ▪ Bus and BRT Updated timetables /routeings ▪ Introduction of new BRT services																		
Assessment Summary	++	+	++	+	++	+	+	+++	+	++	+	++	+	+	+	0	0	+
Cycling & Walking and Wheeling ▪ Introduction of new or extended cycle lanes ▪ Increased priority for walking and wheeling ▪ Upgrades to footpaths and crossings ▪ Introduction of new or extended traffic-free routes																		
Assessment Summary	++	++	++	+	++	++	++	+	++	++	++	++	+	+	++	0	0	+
Parking ▪ Parking (reduction in parking capacities, changes to charges and intro of RPZs)																		
Assessment Summary	+	--	+	+	+	+	0	0	+	+	--	+	0	+	+	0	0	0

12.1.4.3 HIA summary

Due to expected similar impacts, interventions types have been grouped together for HIA, EqIA and Rural Needs Assessments.

The HIA identified significant positive effects as a result of improvements to the bus network and increased service and coverage will reduce congestion and improve access to employment, educational, health and leisure services and facilities and amenities (Objective 1). Benefits may not be as significant for older people or those with certain health problems who may not be able to utilise bus and glider services as a mode of transport and may still be reliant on private vehicles. It is anticipated Bus and BRT Upgrades and Cycling & and Walking and Wheeling interventions will lead to reduced congestion and a more efficient bus network. This would likely reduce the potential for accidents and will reduce stress (Objective 3) in the travelling population – potentially reducing conflict among travellers. As noted groups such as the elderly and disabled may not be able to avail of bus and glider services to as great an extent as other groups, and therefore may not receive the same level of benefits. Connections between and within communities (Objective 5) will be enhanced by the improved bus network and increased service and coverage as well as improved access to cycling, walking and wheeling, with benefits for all groups. Air and noise pollution (Objective 6) will be reduced through reduced car use expected due to the greater opportunity to cycle, walk and wheel. Benefits would be most experienced at a local level, though all groups would benefit particularly children and those with certain health issues. Providing new and improving existing cycle, walk and wheel infrastructure will improve the access to active travel (Objective 7), though not all (e.g. elderly, those with certain disabilities) will be able to avail to the same degree. Major beneficial effects are anticipated from improvements to the bus network and increased service and coverage will improve access to public transport (Objective 8). Provision of cycle and walking and wheeling infrastructure which provides the opportunity to include features such as lighting will provide a safer environment (Objective 9) for active travel and reduce the risks associated with cycling on roads alongside vehicles.

Significant adverse effects are anticipated for Parking interventions in relation to affordability of transport (Objective 2) as there will be increased costs which may affect those on low incomes disproportionately.

12.1.4.4 EqIA summary

The EqIA identified significant positive effects in relation improvements to the bus network and increased service and coverage which will reduce congestion and improve access to employment, educational, health and leisure services, facilities and amenities (Objective 1). Although, while public transport services are increasing, some groups may have decreased ability to cope with timetable and route changes, such as those with learning difficulties, some Ethnic groups where English may not be their first language and those with sight or hearing issues. While the cycling & walking and wheeling interventions would have no direct effect on affordability (Objective 2), they will allow easier access to public transport for those with no access to a private car though of course not all may be able to afford the purchase of bicycles or scooters. Significant adverse effects are anticipated for Parking interventions in relation to affordability of transport (Objective 2) as there will be increased costs which may affect those on low incomes, including ethnic minority groups, the elderly or disabled, disproportionately. It is anticipated Bus and BRT Upgrades and Cycling & and Walking and Wheeling interventions will lead to reduced congestion and a more efficient bus network. This would likely reduce the potential for accidents and will reduce stress (Objective 3) in the travelling population – potentially reducing conflict among travellers. Although, it is worth noting that some people from ethnic groups, females, young people, the elderly, those of different sexual orientation or gender reassignment may have perceptions of being more vulnerable on public transport. Air and noise pollution (Objective 6) will be reduced through reduced congestion and car use expected due to the greater opportunity to walk, wheel and cycle.

12.1.4.5 Rural Needs summary

No significant positive or negative effects were identified in the Rural Needs Assessment. This is a result of the urban nature of the area in question.

12.1.5 Travel Hubs

The ETP notes that, in order to achieve the improvements to public realm by reducing the number of buses stopping and laying over within the core of the city, a need for additional travel hubs has been identified. These Hubs, as well as providing space for bus layover and termini, will also incorporate new and improved mobility facilities such as Belfast Bike and scooter hire, secure bike storage facilities, electric car club vehicles and Shop Mobility to support onwards or accessing journeys.

The enhanced use of existing Hubs at Grand Central Station and Laganside Buscentre, will be supplemented with the provision of northern and southern hubs. This will facilitate a far siding strategy for buses

The proposed multi-modal travel hubs will not only act as key access and egress points for public transport users, but all four Hubs will also incorporate a range of other mobility services to support the accommodation of end-to-end journeys via sustainable transport modes. Transport and other facilities that may be introduced include:

- Bike share (Belfast Bikes)
- Cargo-bike share
- Scooters and bikes
- Ride sharing/Taxi stands
- Shop mobility
- Bike repair/pumps
- Secure cycle parking
- Transport services and information (e.g. ticketing, wayfinding, service information)
- Parcel last mile delivery/freight logistics hub
- Delivery lockers/locker storage
- Pocket park/urban realm improvements
- High quality covered waiting areas/seating
- Convenience services / refreshments

There is one ETP schemes considered for the City Centre in relation to travel hubs are as listed below, with further detail on the schemes and their descriptions included in Table 12-1:

- **CC-17** – Travel Hubs

The intervention types applicable to these schemes and considered for ISA assessment are:

- New travel hubs

The findings of these intervention type assessments are set out as follows:

Table 12-10 – City Centre travel hubs SEA Scores

		SEA Objective														
		Emissions		Environmental									Economic		Social	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
New travel hubs																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	+	+	++	0	0	0
	Negative Residual Effects	-	-	-	-	-	-	-	-	-	-	-	0	0	-	-
Operation	Positive Residual Effects	+	+	+	+	0	0	+	+	+	0	+	+	++	++	++
	Negative Residual Effects	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0

12.1.5.2 SEA summary

During the construction phase, significant positive effects are anticipated in terms of promoting economic growth and job creation (Objective 12) as interventions may create employment opportunities.

Significant positive effects are anticipated during operation for supporting the wider coordination of land use, energy planning and transport planning (Objective 13) as new hubs would require effective transport planning coordination, land use planning regarding new sites, and can result in economic and social benefits. Moderate beneficial effects are expected for health and wellbeing and equality of opportunity (Objective 14 and 15). This is due to increased use of public transport and active travel reducing vehicle use and associated GHG, therefore providing health benefits. Additionally, access may be increased to employment opportunities and public services / recreational facilities, promoting greater equality of opportunity, as they would provide greater connectivity and accessibility.

The HRA Stage 1 Screening identified potential Likely Significant Effects (LSE) for the intervention, CC-17 (Travel Hubs), as there is insufficient detail at this stage to know if the option would result in a change of white lines only or other changes, therefore, the precautionary principal has been used. The HRA Stage 2 'Appropriate Assessment' reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.

Table 12-11 – City Centre travel hubs HIA, EqIA and Rual Needs Assessments

	HIA Objective									EqIA Objective						Rural Needs Objective		
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	1	2	3
Park and Ride & Travel Hubs ▪ New travel hubs																		
Assessment Summary	++	+	++	++	++	+	++	++	++	++	+	++	+	++	++	0	0	+

12.1.5.4 HIA summary

The HIA has identified significant positive effects in relation to a number of its objectives. New travel hubs will result in greater access to different transport modes including public transport, walking and cycling, which would improve access to employment, health, leisure services and facilities (Objective 1) and will be of benefit to all groups, although may not be as significant for older people or those with health problems who may not be able to utilise bus services, walking or cycling as modes of transport. It is anticipated these interventions will lead to reduced congestion and a more efficient active travel network. This would likely reduce the potential for accidents and will reduce stress (Objective 3) in the travelling population – potentially reducing conflict among travellers. Groups such as the elderly, disabled and those heavily pregnant may not be able to avail of active travel and bus services to as great an extent as other groups. Reduced congestion will lead to reduced severance (Objective 4) and in addition, connections will be enhanced through travel hubs, with benefits for all groups. As noted previously, benefits may not be as significant for older people or those with certain health problems who may not be able to utilise bus services, walking or cycling as modes of transport Connections between and within communities (Objective 5) will be enhanced by the improved public transport and active travel facilities, with benefits for all groups. Provision of walking and cycling facilities at the new travel hubs will improve access to active travel modes (Objective 7) and the hubs will improve access to public transport (Objective 8) for all groups. Provision of travel hubs can enhance actual and perceived safety and security (Objective 9) by reducing road congestion and traffic-related risks, fostering safer environments for all users. Features such as well-lit areas, CCTV, clear signage, and secure infrastructure would improve physical safety and provide a greater sense of security, particularly for vulnerable groups like children and disabled individuals.

12.1.5.5 HIA summary

Significant positive effects have also been identified through the EqIA. New travel hubs will result in greater access to different transport modes including public transport, walking and cycling, which would improve access to services, facilities and amenities (Objective 1) and will be of benefit to all groups. Benefits may not be as significant for older people or those with certain health problems who may not be able to utilise bus services, walking or cycling as modes of transport. It is anticipated these interventions will lead to reduced congestion and a more active travel network. This would likely reduce the potential for accidents and will reduce stress (Objective 3) in the travelling population – potentially reducing conflict among travellers. Groups such as the elderly, disabled and those heavily pregnant may not be able to avail of active travel and bus services to as great an extent as other groups and therefore not experience such significant benefits. Reduced congestion will lead to reduced severance (Objective 5) and in addition, connections will be enhanced through travel hubs, with benefits for all groups. Although, as noted previously, benefits may not be as significant for older people or those with certain health problems who may not be able to utilise bus services, walking or cycling as modes of transport. It is considered these interventions will encourage public transport and active travel usage and reduce reliance on private vehicles in the city, reducing air, noise and light pollution (Objective 6). Benefits would be most experienced at a local level across all groups, although particularly benefiting children and those with certain health issues living in close proximity.

12.1.5.6 Rural Needs summary

No significant positive or negative effects were identified in the Rural Needs Assessment. This is a result of the urban nature of the area in question.

12.1.6 Traffic management

The ETP notes that Belfast city centre's transport network is affected by congestion, particularly during the morning and evening 'rush hours'. Further, evidence gathered through the development of the ETP shows that a large proportion of cars currently using the city centre network are using streets as a short-cut to their destination outside the area, rather than using them to access destinations within the city centre.

Coupled with targeted delivery of new and improved transport infrastructure which aim to make sustainable transport options more attractive, measures to manage the effects of private car traffic are required to meet carbon reduction requirements. Reducing the amount of traffic in the city centre will also help to make the streets healthier and more pleasant places to walk, cycle and spend time.

ETP therefore proposes measures to reduce car dominance in public spaces within the city centre through reallocation of road space towards sustainable modes and the careful management of access, parking and loading restrictions.

A city centre-wide 20mph speed restriction will be put into place in order to support the creation of safer streets for pedestrians and cyclists.

Streets within the core of the city centre, aligning with the walking and wheeling priority area, have been identified to be closed to general traffic. This means that cars will no longer be able to use these streets as a means to cross the city centre unnecessarily. Low speed (20mph) access will be retained for properties and businesses as required, and careful consideration will be given to access for taxis, coaches and blue badge holders.

Directionality changes are proposed across the city centre, including in the Cathedral and Linen Quarters. Creation of one-way streets will again help to eliminate rat-running across the city and will also help to free up street space for use by sustainable modes and other uses.

In order to support the delivery of the proposed sustainable transport network improvements, road space reallocation away from private cars will occur across the city centre to an anticipated average of one lane of general traffic in each direction on two-way streets.

The above proposals will help to create safer, cleaner, greener and more active streets within the primary retail area of the city, unlocking opportunities for placemaking and on-street activity.

The eight ETP schemes considered for the City Centre in relation to traffic management are as listed below, with further detail on the schemes and their descriptions included in Table 12-1:

- **CC-18** – Traffic Management North of the City Centre
- **CC-19** – Traffic Management within the Primary Retail Core
- **CC-20** – Traffic Management South of the City Centre
- **CC-25** – Road space reallocation and closure to general traffic

The five intervention types applicable to these schemes and considered for ISA assessment are:

- Introduction of new or extended bus lanes
- Increased priority for walking and wheeling
- Introduction of new or extended cycle lanes
- Parking (reduction in parking capacities, changes to charges and intro of RPZs)
- Introduction of new or extended traffic-free routes

Table 12-12 – City Centre Traffic Management SEA Scores

		SEA Objective														
		Emissions		Environmental									Economic		Social	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Introduction of new or extended traffic-free routes																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	+	+	+	0	0	0
	Negative Residual Effects	-	-	-	-	-	-	-	-	-	-	-	0	0	-	-
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	+	+	++	++	++
	Negative Residual Effects	0	0	0	-	0	0	0	-	0	0	0	0	0	0	0
Introduction of new or extended bus lanes																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	0	0	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-
Increased priority for walking and wheeling																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	-	-	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	-	-
Introduction of new or extended cycle lanes																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	-	-	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	-	-
Parking (reduction in parking capacities, changes to charges and intro of RPZs)																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	0	0	0	0	0	0	0	0	0
Operation	Positive Residual Effects	++	++	0	+	0	0	0	0	0	0	0	+	+	+	+
	Negative Residual Effects	0	0	0	0	0	0	0	0	0	0	0	0	0	-	--

12.1.6.1 SEA summary

No significant effects are anticipated during construction of the intervention types considered under walking and wheeling.

During operation, significant positive effects are anticipated in relation to Air Quality (Objective 1) and Climate (Objective 2) as it is anticipated for the majority of interventions proposed will likely result in increased use of sustainable transport options (and support a modal shift to these options), including walking and cycling and will lead to a reduction in vehicle emissions. Moderate positive effects are also anticipated in respect of the economy (Objectives 12 and 13) for Introduction of new or extended bus lanes, Increased priority for walking and wheeling, and Introduction of new or extended cycle lanes as a result of reduced congestion, improved access and connectivity for all, aiding economic growth and facilitating movement of goods and services. Improved health and well-being (Objective 14) is also expected for the majority of interventions due to increased physical activity and as increased uptake of walking would reduce vehicle use and associated GHG.

Significant adverse effects are anticipated during operation for Parking (reduction in parking capacities, changes to charges and intro of RPZs) in terms of greater equality of opportunity (Objective 15) as affordability of charges may restrict car usage among some socio-economic groups.

The HRA Stage 1 Screening identified potential Likely Significant Effects (LSE) for all the traffic management interventions, as there is insufficient detail at this stage to know if these options would result in a change of white lines only or other changes, therefore, the precautionary principal has been used. The HRA Stage 2 'Appropriate Assessment' reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.

Table 12-13 – City Centre Traffic Management HIA, EqIA and Rural Needs Scores

	HIA Objective									EqIA Objective						Rural Needs Objective		
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	1	2	3
Bus and BRT Upgrades ▪ Introduction of new or extended bus lanes																		
Assessment Summary	++	+	++	+	++	+	+	+++	+	++	+	++	+	+	+	0	0	+
Cycling & Walking and Wheeling ▪ Introduction of new or extended cycle lanes ▪ Increased priority for walking and wheeling ▪ Upgrades to footpaths and crossings ▪ Introduction of new or extended traffic-free routes																		
Assessment Summary	++	++	++	+	++	++	++	+	++	++	++	++	+	+	++	0	0	+

12.1.6.2 HIA summary

The HIA identified significant positive effects in a number of areas including as a result of pedestrianisation and reduced lanes on highways helping make journeys easier, particularly for pedestrians, reduce congestion and thereby improve access to services (Objective 1) by ensuring all users have increased perceptions of safety when using the transport network. It is noted that these benefits may not be as significant for older people or those with health issues or disabilities who may not be able to utilise cycling or walking as a mode of transport. Greater active travel provision will also allow more journeys to a greater variety of destinations to be made by low / zero cost modes (Objective 2), particularly benefitting those on lower incomes although it should be noted though that not all may be able to afford the purchase of bicycles, scooters or public transport. Pedestrianisation, segregated active travel routes and a reduction in travel by other modes will enhance safety and reduce the number of accidents (Objective 3), with particular benefits for pedestrians and cyclists. Connections between and within communities (Objective 5) will be improved with prioritisation and access for those walking, wheeling, cycling and using public transport and a reduction in travel by other modes, though all groups may not all be able to avail of these connections to the same degree. Air, noise and light pollution will be reduced (Objective 6) through reduced car use expected due to pedestrianisation and speed limit reduction. Benefits would be most experienced at a local level, with all groups benefitting particularly children and individuals with certain health conditions. Providing new and improving existing cycle, walk and wheel infrastructure will improve the access to active travel (Objective 7) therefore tackling issues such as inactivity, obesity and improving stress levels. All groups will benefit, though not all (e.g. elderly, those with certain disabilities) will be able to avail to the same degree and for some, access to private vehicles may still be required. Access to public transport will be improved (Objective 8) through new or extended bus lanes with major beneficial effects anticipated for all groups. Provision of cycle and walking and wheeling infrastructure which provides the opportunity to include features such as lighting will provide a safer environment (Objective 9) for active travel and reduce the risks associated with cycling on roads alongside vehicles.

12.1.6.3 EqIA summary

Significant positive effects identified through the EqIA include improved access to services, facilities and amenities (Objective 1) from increased opportunity and priority for walking, wheeling, cycling and buses and reduced congestion. It is noted that benefits may not be as significant for older people, the disabled / those with certain impairments or those who are pregnant (particularly those in later stages of pregnancy) who may not be able to utilise cycling, walking or buses as a mode of transport. While the cycling & walking and wheeling interventions would have no direct effect on affordability (Objective 2), they will allow easier access to public transport for those with no access to a private car, though of course not all may be able to afford the purchase of bicycles or scooters. Significant adverse effects are anticipated for Parking interventions in relation to affordability of transport (Objective 2) as there will be increased costs which may affect those on low incomes, including ethnic minority groups, the elderly or disabled, disproportionately. Provision of segregated active travel routes with good design standards etc., as well as a reduction in travel by other modes, will enhance safety and reduce the number of accidents (Objective 3) although it is noted that all groups such as the elderly, disabled or those pregnant (particularly those in later stages of pregnancy) may not be able to avail of active travel or public transport to as great an extent as other groups. Air, noise and light pollution will be reduced (Objective 6) through reduced congestion and car use expected due to the greater opportunity to walk, wheel and cycle, and reduced speed limits, with all groups benefitting. Note that careful consideration needs to be given to reducing light (through careful design etc.), as in some areas it is required for safety purposes.

12.1.6.4 Rural Needs summary

No significant positive or negative effects were identified in the Rural Needs Assessment. This is a result of the urban nature of the area in question.

12.1.7 Other proposals

The ETP City Centre proposals include other considerations regarding parking, blue badge parking, coach parking, sightseeing buses and taxis. Reducing the amount of space dedicated to car parking within the city centre will unlock space to improve sustainable transport services, provide development potential and new public green space. Retaining convenient and sufficient blue badge parking spaces across the city centre is nevertheless noted as a key priority for the ETP. This alongside coach access and sightseeing buses as well as taxi ranks will be retained and considered through the DfI assessment process.

There are four ETP scheme considered for the City Centre in relation to other proposals are as listed below, with further detail on the schemes and their descriptions included in Table 12-1:

- **CC-21** – City Centre kerbside review
- **CC-22** – Update to Belfast City Centre Core Parking Zone boundary
- **CC-23** - Update to Belfast City Centre Fringe Parking Zone boundary
- **CC-24** – Blue Badge and Accessible Bays

12.1.8 City Centre Summary

A wide range of interventions are proposed in the City Centre, incorporating 10 intervention types for assessment through the ISA Framework. These assessments and the scores have been summarised, and full assessment tables are included in Appendix E.

As shown in the tables, within this section, there are limited significant effects anticipated during construction of the interventions. Moderate beneficial effects are anticipated for new travel hubs in relation to promoting economic growth and job creation as there may be job opportunities during their construction. During operation, significant beneficial effects are expected for a number of intervention types in relation to air quality and carbon as interventions improving active travel and public transport are expected to result in a reduction in private vehicle use and associated emissions. Significant beneficial effects are also anticipated across a number of intervention types where connectivity is increased, effective land use and transport planning coordination results in economic and social benefits and health and wellbeing is improved through increased use of active travel and a reduction in private vehicles. Equality of opportunity is anticipated to be significantly benefitted where reductions in speed limits create safer streets particularly for children, elderly, disabled and pregnant women and new travel hubs increase access to employment opportunities and public services / recreational facilities.

The HRA AA reported that the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects in the City Centre area, with the mitigation proposed.

In terms of health and equality, the interventions in the City Centre are anticipated to be largely beneficial as shown in the tables in this section. This is a result of improved accessibility, opportunities to improve safety and security, better connections within communities and improved access to public transport and active travel. Significant adverse effects are anticipated in relation to affordability of transport where parking charges are introduced or increased, with those low income groups particularly adversely affected.

Overall, the interventions proposed in the City Centre will be largely beneficial in terms of air, carbon, economic and social aspects and health and equalities, through encouraging use of active travel and public transport and improving access and connectivity.

Table 12-14 – City Centre SEA Construction Summary Scores

	SEA Objective																											
	Emissions				Environmental																		Economic				Social			
	Protect and improve air quality		Reduce carbon dioxide (CO_2) emissions from transport and contribute to meeting net zero carbon targets		Increase resilience of the transport network to the effects of a changing climate such as extreme weather events		Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain		Protect and enhance sites designated internationally for nature conservation purposes (HRA objective)		Protect, enhance and promote geodiversity		Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings		Protect and enhance the character and quality of landscapes, townscapes and visual amenity		Protect and enhance the water environment		Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources		Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated		Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all		Support the wider coordination of land use, energy planning and transport planning across the Eastern Transport Area and into surrounding regions		Improve health and well-being for all citizens and reduce inequalities in health (HIA specific objective)		Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society (EqIA specific objective)	
Intervention Type	**+**	**-**	**+**	**-**	**+**	**-**	**+**	**-**	**+**	**-**	**+**	**-**	**+**	**-**	**+**	**-**	**+**	**-**	**+**	**-**	**+**	**-**	**+**	**-**	**+**	**-**	**+**	**-**	**+**	**-**
Speed limit reduction	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
Introduction of new or extended bus lanes	**0**	**-**	**0**	**-**	**0**	**0**	**0**	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**0**	**0**	**0**	**-**	**+**	**0**	**0**	**0**	**0**	**-**	**0**	**0**
Updated bus or timetables / routeings	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**
Introduction of new BRT services	**0**	**-**	**0**	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**-**	**0**	**-**	**0**	**0**	**0**	**-**	**0**	**0**	**0**	**0**	**0**	**-**	**0**	**0**
Increased priority for walking and wheeling	**0**	**-**	**0**	**-**	**0**	**0**	**0**	**-**	**0**	**0**	**0**	**0**	**0**	**-**	**0**	**-**	**0**	**-**	**0**	**0**	**0**	**-**	**+**	**0**	**0**	**0**	**0**	**-**	**0**	**0**
Upgrades to footpaths and crossings	**0**	**-**	**0**	**-**	**0**	**0**	**0**	**-**	**0**	**0**	**0**	**0**	**0**	**-**	**0**	**-**	**0**	**-**	**0**	**0**	**0**	**-**	**+**	**0**	**0**	**0**	**0**	**-**	**0**	**0**
Introduction of new or extended cycle lanes	**0**	**-**	**0**	**-**	**0**	**0**	**0**	**-**	**0**	**0**	**0**	**0**	**0**	**-**	**0**	**-**	**0**	**-**	**0**	**0**	**0**	**-**	**+**	**0**	**0**	**0**	**0**	**-**	**0**	**0**
Parking (reduction in parking capacities, changes to charges and intro of RPZs)	**0**	**-**	**0**	**-**	**0**	**0**	**0**	**-**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
New travel hubs	**0**	**-**	**0**	**-**	**0**	**-**	**0**	**-**	**0**	**-**	**0**	**-**	**0**	**-**	**0**	**-**	**0**	**-**	**+**	**-**	**+**	**-**	**++**	**0**	**0**	**0**	**0**	**-**	**0**	**-**
Introduction of new or extended traffic-free routes	**0**	**-**	**0**	**-**	**0**	**-**	**0**	**-**	**0**	**-**	**0**	**-**	**0**	**-**	**0**	**-**	**0**	**-**	**+**	**-**	**+**	**-**	**+**	**0**	**0**	**0**	**0**	**-**	**0**	**-**

Table 12-15 – City Centre SEA Operation Summary Scores

	SEA Objective																											
	Emissions				Environmental																Economic				Social			
	Protect and improve air quality		Reduce carbon dioxide (CO2) emissions from transport and contribute to meeting net zero carbon targets		Increase resilience of the transport network to the effects of a changing climate such as extreme weather events		Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain		Protect and enhance sites designated internationally for nature conservation purposes (HRA objective)		Protect, enhance and promote geodiversity		Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings		Protect and enhance the character and quality of landscapes, townscapes and visual amenity		Protect and enhance the water environment		Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources		Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated		Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all		Support the wider coordination of land use, energy planning and transport planning across the Eastern Transport Area and into surrounding regions		Improve health and well-being for all citizens and reduce inequalities in health (HIA specific objective)		Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society (EqIA specific objective)	
Intervention Type	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
Speed limit reduction	+	0	+	0	0	0	+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	+	0	++	0	++	0
Introduction of new or extended bus lanes	++	0	++	0	0	-	+	0	0	0	0	0	+	0	+	0	+	0	0	0	0	0	++	0	++	0	++	0	+	-
Updated bus or BRT timetables / routeings	+	0	+	0	0	0	+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0	+	-
Introduction of new BRT services	++	0	++	0	0	0	+	0	0	0	0	0	+	0	0	-	+	0	0	0	0	0	+	0	+	0	+	0	+	-
Increased priority for walking and wheeling	++	0	++	0	0	-	+	0	0	0	0	0	+	0	+	0	+	0	0	0	0	0	++	0	++	0	++	-	+	-
Upgrades to footpaths and crossings	++	0	++	0	0	-	+	0	0	0	0	0	+	0	+	0	+	0	0	0	0	0	++	0	++	0	++	-	+	-
Introduction of new or extended cycle lanes	++	0	++	0	0	-	+	0	0	0	0	0	+	0	+	0	+	0	0	0	0	0	++	0	++	0	++	-	+	-
Parking (reduction in parking capacities, changes to charges and intro of RPZs)	++	0	++	0	0	0	+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+	0	+	0	+	-	+	--
New travel hubs	+	0	+	0	+	0	+	0	0	0	0	0	+	0	+	-	+	0	0	0	+	0	+	0	++	0	++	0	++	0
Introduction of new or extended traffic-free routes	++	0	++	0	0	0	+	-	0	0	0	0	+	0	+	-	+	0	0	0	+	0	+	0	++	0	++	0	++	0

Table 12-16 – City Centre HIA, EqIA and Rural Needs Assessment Summary Scores

Intervention Types	HIA Objective									EqIA Objective						Rural Needs Objective		
	Improve accessibility to employment, educational, health and	Improve affordability of transport	Improve safety of the transport network (including roads) and	Reduce severance	Improve connections between and within communities	Reduce air, noise, odour and light pollution from transport	Improve access to active travel modes	Improve access to public transport	Improve actual and perceived safety and security issues	Improve accessibility to services, facilities and amenities for all, in	Improve affordability of transport	Improve safety of the transport network (including roads) and	Improve provision of public transport in rural areas, coastal	Reduce severance	Reduce air, noise, odour and light pollution from transport	Increase access via a range of transport modes for rural communities.	Enable economic growth, and employment diversification in rural	Connecting people with nature
Bus and BRT Upgrades	++	+	++	+	++	+	+	+++	+	++	+	++	+	+	+	0	0	+
Cycling & Walking and Wheeling	++	++	++	+	++	++	++	+	++	++	++	++	+	+	++	0	0	+
Speed limit reduction	++	0	++	+	+	++	++	0	++	++	0	++	0	+	++	0	0	+
Park and Ride & Travel Hubs	++	+	++	++	++	+	++	++	++	++	+	++	+	++	++	0	0	+
Parking	+	--	+	+	+	+	0	0	+	+	--	+	0	+	+	0	0	0

12.2 Metropolitan Area

As set out in the ETP, the Metropolitan Area refers to the continuous built-up area spanning outwards from Belfast city centre, including Belfast city, Metropolitan Newtownabbey, Metropolitan Castlereagh and Metropolitan Lisburn and contains the following council areas:

- Antrim and Newtownabbey Borough Council (ANBC);
- Belfast City Council (BCC); and
- Lisburn and Castlereagh City Council (LCCC).

All three councils have plans to support population growth. BCC's growth strategy highlights the need to accommodate 31,600 new homes within the council area between 2020 to 2035.

In the broader Metropolitan Area, a further 3,900 new homes are proposed by ANBC in Metropolitan Newtownabbey (representing 40% of total ANBC planned growth), along with 1,706 new homes in Metropolitan Castlereagh and 242 new homes within the Lisburn Greater Urban Area. Should these growth proposals be realised, and if historical trends were followed, a substantial increase in trips will be generated across the Metropolitan Area's transport network, placing strain on parts of the highway and public transport network that are already at capacity during peak periods.

The Metropolitan Area acts as the confluence of many major transport links, connecting to other key locations across the region and beyond. Belfast Harbour and Belfast City Airport, also within the area, provide gateways to Britain, Europe and the rest of the world.

The existing highway network provides for local and strategic connections within and beyond the Metropolitan Area. The key strategic highway links include the M1, M2 and M5 as well as the A-road network that provides for faster long-distance journeys to and from neighbouring settlements and across the border. Alongside the highway network, regional rail lines also provide links to towns and cities across the region and across the border. A focus of the railway network is the recently refurbished Belfast Grand Central Station, which provides key commuting corridors radiating from Belfast city centre and beyond into the Metropolitan Area and on to Dublin. There are 15 railway stations located within the Metropolitan Area.

In addition to the road and rail links that serve the Metropolitan Area, an extensive bus and bus rapid transit (BRT) offer helps to connect residents, businesses and visitors to key destinations within and beyond the area. Regional Ulsterbus and Goldliner services provide longer distance connections to settlements across the region and key destinations across the border. The Belfast Metro bus network, centred on Belfast city centre, provides services across council boundaries into Metropolitan Newtownabbey, Metropolitan Castlereagh and Metropolitan Lisburn. The Belfast Rapid Transit Phase 1 pilot route network and service opened on 3rd September 2018 under the Glider brand and provides a BRT service between East and West Belfast through the City Centre, with a link to Titanic Quarter. The combined bus and BRT network is complex with many overlapping route variants, offering a mix in terms bus journey times and service frequencies.

The quality of infrastructure provision for active modes varies across the area. While footways are provided alongside road carriageways, the quality of the surfaces, kerb lines and the provision of pedestrian crossing facilities varies significantly.

The ETP identifies a number of key transport challenges for the Metropolitan Area, as follows:

- Lack of coherent cycle network
- Lack of bus priority
- Car dominance and pavement parking in residential areas

- Accommodating population growth and growing congestion

The development of the ETP is following a Vision-led approach, in an attempt to move away from historic patterns of travel which has resulted in an overdependence in the private car. Whist the ETP notes that it must seek to accommodate the growth proposed by the Councils, it must be delivered in a sustainable manner and in line with the Transport Vision.

The following sections set out proposals for each of these modes and outlines the ISA approach to assessment of these proposals under linked 'Intervention Types'. The interventions set out in the ETP for the Metropolitan Area, and their reference are set out in Table 12-17.

Table 12-17 – Metropolitan Area Interventions

Scheme	Scheme Ref	Description	Applicable ISA Intervention Type
Walking and Wheeling			
Metropolitan Area 20mph speed limit	MA-01	Speed limit reductions to 20mph across all People Places and People and Movement Places within the Metropolitan Area will make residential areas and local high street areas safer and more attractive places to walk or wheel.	▪ Speed limit reduction
BCC People and Movement Places	MA-02	Belfast City Council have identified 33 local centres within their Local Development Plan, representing locations that conveniently provide accessible shopping and services for local communities. Transport-related improvements to footways and crossing facilities within these and surrounding areas will be progressed to improve community access to these locations. In line with the Belfast Agenda Community Plan 'Our Place Action Plan', four place based exemplar areas will be progressed within the Plan period to demonstrate not only what can be achieved, but also to establish a best practice process that can be followed to deliver community-led, co-designed solutions. These will be located at Andersonstown, Antrim Road, Ballyhackamore, and Ormeau Road. These locations have been selected due to the potential to tie into wider multi-modal improvements and benefit a high number of people. Interventions will be developed collaboratively with the local community and council, drawing on suggestions outlined in the ETP Guiding Principles and People and Movement Places toolkit.	▪ Increased priority for walking and wheeling ▪ Upgrades to footpaths and crossings
Glengormley Town Centre	MA-03	The ETP vision for Glengormley is as follows. ▪ Support Public Realm improvements proposed by ANBC. ▪ Speed limit reduction to 20mph to further support pedestrian and cycle safety. ▪ Improve connection to BRT2 O'Neill Park and Ride ▪ Enhanced bus stop waiting facilities in line with the new ETP Performance, Service and Infrastructure Standards as proposed in MA-11. ▪ Parking – Consideration of Glengormley as an area of parking restraint	▪ Increased priority for walking and wheeling ▪ Upgrades to footpaths and crossings ▪ Speed limit reduction ▪ Parking (reduction in parking capacities, changes to charges and intro of RPZs)

Scheme	Scheme Ref	Description	Applicable ISA Intervention Type
ANBC People and Movement Places	MA-04	Antrim and Newtownabbey Borough Council's Local Development Plan identifies 17 local centres within Metropolitan Newtownabbey. These represent areas that provide (or have the potential to provide) a range of shops and services to a surrounding community. In support of these, transport-related improvements to footways and crossing facilities within these and surrounding areas will be progressed to help make walking and wheeling a more attractive and convenient option for local journeys. Within the Plan period, a study area centred on two local centres will be the focus of interventions: Abbot's Cross and Cloughfern local centres. These locations have the potential to benefit a comparably high number of people, including those that may have more limited access to a car or van, as well as having the potential to connect into the wider sustainable transport network. The study area has been defined as all areas within approximately a 10-minute walk time of each local centre, however this may be subject to refinement as any proposals are progressed. Transport interventions will be developed collaboratively with the local community and council, drawing on suggestions outlined in the ETP Guiding Principles and People and Movement Places toolkit.	▪ Increased priority for walking and wheeling ▪ Upgrades to footpaths and crossings
LCCC People and Movement Places	MA–05	Three potential People and Movement Places have been identified by Lisburn and Castlereagh City Council within Metropolitan Lisburn and Castlereagh. To support enhancement of these locations, transport-related improvements to footways and crossing facilities within these areas and from the surrounding communities will be progressed in order to make walking and wheeling a more attractive and convenient option for local journeys. Within the Plan period, Dundonald has been selected due to the potential to benefit a high number of people in the surrounding residential area, and due to strong connections with the existing Glider route and Park and Ride. Interventions will be developed collaboratively with the local community and council, drawing on suggestions outlined in the ETP Guiding Principles and People and Movement Places toolkit.	▪ Increased priority for walking and wheeling ▪ Upgrades to footpaths and crossings
Targeted improvements to	MA-06	Targeted improvements to footways and crossings as need is identified, including within People Places, Quality Mass Movement Routes and Connecting Movement Routes as required.	▪ Upgrades to footpaths and crossings

Scheme	Scheme Ref	Description	Applicable ISA Intervention Type
footways and crossings			
Cycling			
Upgrades to existing cycle routes	MA–07	Where necessary, improvements to existing cycle routes will be delivered. For example, to provide improved separation between cyclists and motor traffic, or in the resurfacing of degraded routes.	▪ Upgrades to footpaths and crossings ▪ Introduction of new or extended cycle lanes
Providing new supporting infrastructure including secure cycle storage and cycle hire options	MA–08	To support end-to-end journeys and unlock cycling as an opportunity mode for people that do not own their own bikes, the Department will continue working with partners to support the provision of secure cycle storage and cycle hire options across the region.	▪ Upgrades to footpaths and crossings
People and Movement Places	MA–09	Interventions to be progressed within the seven initial People and Movement Places, will consider the needs of cyclists. Interventions may involve improved wayfinding for cyclists, introduction of new or improved cycle storage and introduction of new cycle lanes connecting the amenities in the local centre to the wider cycle network.	▪ Introduction of new or extended cycle lanes ▪ Increased priority for walking and wheeling
Priority cycle routes	MA–10	New high-quality, segregated cycle routes will be delivered along key routes across the Metropolitan Area. These have been carefully identified to close gaps in the existing cycle network and introduce new travel options serving corridors that have low levels of existing cycle priority infrastructure. Together with existing routes and connections within Belfast City Centre, these priority cycle routes will help to make cycling a more attractive and realistic travel choice for many in the city.	▪ Introduction of new or extended cycle lanes
Bus and BRT			
Development of enhanced Bus Performance,	MA-11	A new set of Bus Performance, Infrastructure and Service Standards will be developed in close collaboration with Translink. These will establish the high quality aspects for the bus and BRT network including:	▪ Introduction of new or extended bus lanes

Scheme	Scheme Ref	Description	Applicable ISA Intervention Type
Infrastructure and Service Standards		▪ Fixed infrastructure, vehicles, operations and customer services; ▪ High standards of reliability with punctual service operation and predictable journey times; ▪ Delivery of a complete system with a consistent approach to every aspect and component of the system design; ▪ Integration at all levels, including policy areas such as social inclusion and economic regeneration, and with other modes of transport including walking, wheeling, cyclists and car users	▪ Updated bus or BRT timetables / routeings ▪ Introduction of new BRT services
Enhanced Bus Passenger Proposition	MA-12	A new, Bus Passenger Proposition will be developed. DfI will work with Translink to identify opportunities to improve the overall passenger proposition, including a review of Metro service routeings, with the aim of delivering a simplification in bus routeings and leading to an improvement in service frequencies and passenger experience across the area. This will also include a review of fares, integrating payment mechanisms and ticketing to improve the information available to existing and prospective bus users. These benefits will be felt across the full Metropolitan Area bus network.	▪ Updated bus or BRT timetables / routeings
Bus priority infrastructure	MA-13	Associated with the new Bus Performance, Infrastructure and Service Standards, enhancements to existing bus stops and associated infrastructure, including implementation of real-time passenger information, will be delivered along identified Quality Mass Movement Routes in anticipation of the future expansion of bus priority measures and future Glider phases. Implementation of the Standards will also result in increased levels of bus priority measures (bus lanes and priority at signalised junctions) leading to improvements in bus journey times and reliability.	▪ Introduction of new or extended bus lanes ▪ Updated bus or BRT timetables / routeings
Belfast Rapid Transit 3 via Lisburn Road	MA-14	Lisburn Road has been identified as a priority corridor for delivery of future Glider services. The Lisburn Road service will connect Belfast city centre to the south-west of the city, with a potential connection to the existing Blacks Road Park and Ride facility. During the Plan period, progression of appraisal and design work will continue ahead of scheme delivery. The scheme will include delivery of high levels of bus priority (bus	▪ Introduction of new or extended bus lanes ▪ Updated bus or BRT timetables / routeings ▪ Introduction of new BRT services

Scheme	Scheme Ref	Description	Applicable ISA Intervention Type
		lanes) along the corridor in line with the proposals for Quality Mass Movement Routes, as well as implementation of new Glider services and installation of Glider halts.	
Belfast Rapid Transit 3 via Shore Road	MA-15	Shore Road has been identified as a priority corridor for delivery of future Glider services. The Shore Road proposal would operate from a new Park and Ride in Metropolitan Newtownabbey serving Shore Road, connecting to Belfast city centre and beyond. During the Plan period, progression of appraisal and design work will continue ahead of scheme delivery. The scheme will include delivery of high levels of bus priority (bus lanes) along the corridor in line with the proposals for Quality Mass Movement Routes, as well as implementation of new Glider services and installation of Glider halts.	▪ Introduction of new or extended bus lanes ▪ Updated bus or BRT timetables / routeings ▪ Introduction of new BRT services
Park & Ride			
P&R / Travel Hub services	MA-16	Across all existing and planned Park and Ride sites, options to introduce new and improved mobility services will be considered. For example, introducing improved or expanded provision of cycle parking and cycle hire.	▪ Updated bus or BRT timetables / routeings ▪ Park and ride ▪ New travel hubs
McKinstry Road P&R (new)	MA-17	To build on the success of the existing BRT Phase 1 G1 Glider route, it is proposed to introduce a new Park and Ride to serve this corridor. Works to identify a suitable site and progress its development will be undertaken within the Plan period.	▪ Updated bus or BRT timetables / routeings ▪ Park and ride
Black's Road P&R link to Lisburn Road (enhancement)	MA-18	In support of Quality Mass Movement Route and BRT Phase 3 proposals via Lisburn Road, opportunities to connect existing and new bus and Glider services serving Lisburn Road into the existing Park and Ride at Black's Road will be progressed.	▪ Updated bus or BRT timetables / routeings ▪ Park and ride
Holywood Road P&R (new)	MA-19	Options to introduce a new Park and Ride site serving the Quality Mass Movement Route along Holywood Road will be pursued within the Plan period.	▪ Updated bus or BRT timetables / routeings ▪ Park and ride
Repurposing of city centre P&Rs	MA-20	Alternative transport related uses for Eastside and Northside Park and Rides will be considered during the plan period.	▪ Updated bus or BRT timetables / routeings ▪ Park and ride

Scheme	Scheme Ref	Description	Applicable ISA Intervention Type
Shore Road P&R (new)	MA-21	As part of BRT3 proposals, it is recommended that a new Park and Ride site is introduced to capture trips from the north of the Metropolitan Area and beyond, connecting into a new BRT Phase 3 Glider service. Site selection, design and bus service changes associated with delivery of this site will be progressed alongside wider BRT3 proposals during the Plan period.	▪ Updated bus or BRT timetables / routeings ▪ Park and ride ▪ Introduction of new BRT services
Traffic Management and Parking			
Expansion of areas of parking restraint	MA-22	Within the Belfast City Council area ETP recommends the expansion of existing areas of parking restraint, within which more restrictive parking standards are applied, to include within: ▪ Belfast city centre fringe boundary; ▪ Within 100m of a Local Centre (People and Movement Places); ▪ Within 50m of a Quality Mass Movement Route; ▪ Within 100m of a rail station; and ▪ Within ANBC and LCCC, in line with local policy plans.	▪ Parking adjustments (reduction in parking capacities, changes to charges and intro of RPZs)
Rationalisation of on street parking provision	MA-23	Rationalisation of on street parking provision where necessary to accommodate bus lanes, cycle lanes and / or footway widening.	▪ Parking adjustments (reduction in parking capacities, changes to charges and intro of RPZs)
Targeted amendments to on street parking and loading activity	MA-24	Rationalisation of on street parking provision to accommodate extended bus priority measures. The designs for new bus lanes and associated bus infrastructure will be developed over the course of the Plan period and will include liaison with local communities and businesses to ensure that access and servicing requirements along the corridors are appropriately maintained or relocated.	▪ Parking adjustments (reduction in parking capacities, changes to charges and intro of RPZs)
Targeted changes to speed limits	MA-25	Targeted changes to speed limits on connecting movement routes to ensure that traffic speeds are appropriate to the nature of the road and activity on it. For example, part time 20mph speed limits will continue to be introduced at schools that do not already have them.	▪ Speed limit reduction
Introduction of new south facing slip roads at the Black's	MA-26	Introducing new south facing slip roads at the Black's Road junction of the M1 (junction 3). The new slips would enable access to south Belfast and Metropolitan Lisburn, reducing pressure on alternative Connecting and Quality Mass Movement Routes. The	▪ Highway developments (new highway / junction schemes)

Scheme	Scheme Ref	Description	Applicable ISA Intervention Type
Road junction of the M1		slips would enable direct access from the M1 to Black's Road Park and Ride for traffic travelling from south of Belfast. This will relieve pressure on alternative bus and rail-based Park and Ride sites along the corridor and will enable people travelling to Belfast from Lisburn City and other settlements to the south to access proposed new Glider services via the Lisburn Road, as well as express bus and Park and Ride services that use the M1.	
Targeted hard shoulder running on M1 and M2 to improve reliability and punctuality of bus services	MA-27	This involves permitting buses and coaches to use the motorway hard shoulders as a dedicated running lane during specific time periods e.g. peak commuter times or special events. This will enable bus and coach passengers to bypass traffic congestion, thereby enhancing the attractiveness of services and park and ride as an alternative to travelling by car into Belfast.	▪ Highway developments (new highway / junction schemes) ▪ Introduction of new or extended bus lanes

12.2.1 Walking and Wheeling

The Plan proposes improvements to walking and wheeling facilities across the Metropolitan Area, focused on improving safety (including the perception of safety) and enhancing connections between residential areas and local retail, education, employment and leisure destinations.

The ETP sets out that as depicted in the PMF for the Metropolitan Area, walking and wheeling is seen as the priority mode across much of the Metropolitan Area, including within:

- People Places: covering predominantly residential areas, where most people start and end their everyday journeys;
- Traffic Free Routes: which connect the Metropolitan Area with Belfast city centre and neighbouring settlements such as Lisburn;
- People and Movement Places: which centre on clusters of shops and other local amenities across the area; and
- Connecting Movement Routes: forming connections between different areas within, into and out of the Metropolitan Area.

In placing walking and wheeling at the top of the modal hierarchies for each of these PMF categories, ETP is committing to ensuring that any transport interventions within the Plan period first consider and address the needs of walkers and wheelers.

The six ETP schemes considered for the Metropolitan Area in relation to walking and wheeling are as listed below, with further detail on the schemes and their descriptions included in Table 12-17:

- **MA-01** - Metropolitan Area 20mph speed limit
- **MA-02** - BCC People and Movement Places
- **MA-03** - Glengormley Town Centre
- **MA-04** - Glengormley Town Centre
- **MA–05** - LCCC People and Movement Places
- **MA–06** - Targeted improvements to footways and crossings

The four intervention types applicable to these schemes and considered for ISA assessment are:

- Increased priority for walking and wheeling
- Upgrades to footpaths and crossings
- Speed limit reduction
- Parking (reduction in parking capacities, changes to charges and intro of RPZs)

The findings of these intervention type assessments are set out as follows:

Table 12-18 - Metropolitan Area Walking and Wheeling SEA Scores

		SEA Objective														
		Emissions		Environmental									Economic		Social	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Speed limit reduction																
Construction	Positive Residual Effects	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Negative Residual Effects	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Operation	Positive Residual Effects	+	+	0	+	0	0	0	0	0	0	0	0	+	++	++
	Negative Residual Effects	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0
Upgrades to footpaths and crossings																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	-	-	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	-	-
Increased priority for walking and wheeling																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	-	-	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	-	-
Parking (reduction in parking capacities, changes to charges and intro of RPZs)																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	0	0	0	0	0	0	0	0	0
Operation	Positive Residual Effects	++	++	0	+	0	0	0	0	0	0	0	+	+	+	+
	Negative Residual Effects	0	0	0	0	0	0	0	0	0	0	0	0	0	-	--

12.2.1.1 SEA summary

No significant effects are anticipated during construction of the intervention types considered under walking and wheeling.

During operation, significant positive effects are anticipated in relation to Air Quality (Objective 1) and Climate (Objective 2) for the majority of intervention types as it is anticipated that improvements for walking, wheeling and cycling would encourage a modal shift away from vehicle use to more sustainable transport options, and therefore lead to a reduction in vehicle emissions. Moderate positive effects are also anticipated in respect of the economy (Objectives 12 and 13) for Upgrades to footpaths and crossings and Increased priority for walking and wheeling as a result of reduced congestion, improved access and connectivity for all, aiding economic growth and facilitating movement of goods and services. Improved health and well-being (Objective 14) is also expected for the majority of intervention types due to increased physical activity and as increased uptake of walking would reduce vehicle use and associated GHG for all interventions types. Significant positive effects are also anticipated for greater equality of opportunity (Objective 15) for Speed limit reduction due to the anticipated safer streets particularly for children, elderly, disabled and pregnant women but all groups will benefit, by slowing traffic, reducing vehicle use and air pollution.

Significant adverse effects are anticipated during operation for Parking (reduction in parking capacities, changes to charges and intro of RPZs) in terms of greater equality of opportunity (Objective 15) as affordability of charges may restrict car usage among some socio-economic groups.

The HRA Stage 1 Screening identified Likely Significant Effects (LSE) for MA-02 (BCC People and Movement Places), MA-03 (Glengormley Town Centre), MA-04 (ANBC People and Movement Places), MA-05 (LCCC People and Movement Places) and MA-06 (Targeted improvements to footways and crossings) interventions as they may involve works to complete improvements to transport infrastructure, therefore, there is a potential risk of LSE subject to design and location. No LSE were anticipated in for MA-01 (Metropolitan Area 20mph speed limit). The HRA Stage 2 ‘Appropriate Assessment’ reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.

Due to expected similar impacts, interventions types have been grouped together for HIA, EqIA and Rural Needs Assessments.

Table 12-19 - Metropolitan Area Walking and Wheeling HIA, EqIA and Rural Needs Assessment Scores

	HIA Objective									EqIA Objective						Rural Needs Objective		
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	1	2	3
Speed limit reduction																		
Assessment Summary	++	0	++	+	+	++	++	0	++	++	0	++	0	+	++	0	0	+
Cycling & Walking and Wheeling ▪ Upgrades to footpaths and crossings ▪ Increased priority for walking and wheeling																		
Assessment Summary	++	++	++	+	++	++	++	+	++	++	++	++	+	+	++	0	0	+
Parking ▪ Parking (reduction in parking capacities, changes to charges and intro of RPZs)																		
Assessment Summary	+	--	+	+	+	+	0	0	+	+	--	+	0	+	+	0	0	0

12.2.1.2 HIA summary

The HIA found significant beneficial effects are anticipated as there will be increased opportunity and priority to walk and wheel will result in much greater access to this mode of active travel, which would improve access to employment, health, leisure services and facilities (Objective 1) and will be of benefit to all groups, for both intervention types. It is noted that the interventions will allow more active travel for most members of society but benefits may not be as significant for older people or those with health issues or disabilities who may not be able to utilise cycling or walking as a mode of transport. Significant beneficial effects are anticipated for cycling & walking and wheeling interventions as although they would have no direct effect on affordability (Objective 2), they will allow easier access to public transport for those with no access to a private car. Greater active travel provision will allow more journeys to a greater variety of destinations to be made by low / zero cost modes, with benefits for those on lower incomes, although it is noted that not all may be able to afford the purchase of bicycles or scooters. Provision of segregated active travel routes with good design standards etc., as well as a reduction in travel by other modes and reduced speed limit, will enhance safety and reduce the number of accidents (Objective 3). This will be of particular benefit to pedestrians and cyclists, though there remains a risk for some groups such as children, the elderly and those visually or hearing impaired who could be at risk from collision with cyclists and scooters. Connections between and within communities (Objective 5) will be improved by new and improved active travel routes, though all groups may not all be able to avail of these connections to the same degree. Air and noise pollution (Objective 6) will be reduced through reduced car use expected due to the greater opportunity to cycle, walk and wheel. Benefits would be most experienced at a local level, though all groups would benefit particularly children and individuals with certain health conditions, who are especially vulnerable to poor air quality. Providing new and improving existing cycle, walk and wheel infrastructure will improve the access to active travel (Objective 7) and a reduction in speed limit may encourage use of these modes. All groups will benefit, though not all (e.g. elderly, those with certain disabilities) will be able to avail to the same degree and for some, access to private vehicles may still be required. Provision of cycle and walking and wheeling infrastructure which provides the opportunity to include features such as lighting will provide a safer environment (Objective 9) for active travel and reduce the risks associated with cycling on roads alongside vehicles. Additionally, a reduction in speed limit will also improve safety.

Significant adverse effects are anticipated for Parking in relation to affordability (Objective 2) as interventions could adversely affect those on low incomes.

12.2.1.3 EqIA summary

The EqIA found moderate beneficial effects as a result of increased opportunity and priority to walk and wheel and a speed limit reduction will result in much greater access to active travel, which would improve access to employment, health, leisure services and facilities (Objective 1) and will be of benefit to all groups. Benefits may not be as significant for older people, the disabled / those with certain impairments or those who are pregnant (particularly those in later stages of pregnancy) who may not be able to utilise cycling or walking as a mode of transport. While the cycling & walking and wheeling interventions would have no direct effect on affordability (Objective 2), they will allow easier access to public transport for those with no access to a private car, though of course not all may be able to afford the purchase of bicycles or scooters.. Provision of segregated active travel routes with good design standards etc., as well as a reduction in travel by other modes and reduction in speed limit, will enhance safety and reduce the number of accidents (Objective 3). Pedestrians and cyclists, children, elderly, disabled and pregnant women may particularly benefit from speed limit reduction, by slowing traffic, reducing vehicle use and air pollution. Air and noise pollution (Objective 6) will be reduced through reduced congestion and car use expected due to the greater opportunity to walk, wheel and cycle, and reduced speed limits. Benefits would be most experienced at a local level, although all groups would benefit.

Significant adverse effects are anticipated for Parking in relation to affordability (Objective 2) as interventions could adversely affect those on low incomes.

12.2.1.4 Rural Needs summary

No significant positive or negative effects were identified in the Rural Needs Assessment.

12.2.2 Cycling

ETP aims to encourage more people to cycle by increasing the importance of considering the needs of cyclists as part of scheme development and design. This reflects cycling's second place in modal priority in the hierarchies for:

- People Places: covering predominantly residential areas, where most people start and end their everyday journeys;
- Traffic Free Routes: which connect the Metropolitan Area with Belfast city centre and neighbouring settlements such as Lisburn;
- People and Movement Places: which centre on clusters of shops and other local amenities across the area; and
- Connecting Movement Routes: forming connections between different areas within, into and out of the Metropolitan Area.

The Vision for cycling has largely been informed by the Belfast Cycling Network (BCN) Delivery Plan which, in 2022, identified 57 proposed schemes for delivery across the Belfast area to 2031. The 2022 Delivery Plan identified the key schemes throughout the city, with a particular focus on those areas where there is currently little separated or traffic-free infrastructure in order to build a more coherent network of routes across the area.

The BCN routes have been reviewed during the development of the ETP, and in some cases, minor amendments to the BCN have been made to reflect the modal priorities outlined in the PMF Vision. The BCN has identified infrastructure requirements along each of these routes.

The four ETP schemes considered for the Metropolitan Area in relation to cycling are as listed below, with further detail on the schemes and their descriptions included in Table 12-17:

- **MA-07** - Upgrades to existing cycle routes
- **MA-08** - Providing new supporting infrastructure including secure cycle storage and cycle hire options
- **MA-09** - People and Movement Places
- **MA-10** - Priority cycle routes

The three intervention types applicable to these schemes and considered for ISA assessment are:

- Increased priority for walking and wheeling
- Upgrades to footpaths and crossings
- Introduction of new or extended cycle lanes

The findings of these intervention type assessments are set out as follows:

Table 12-20 - Metropolitan Area Cycling SEA Scores

		SEA Objective														
		Emissions		Environmental									Economic		Social	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Increased priority for walking and wheeling																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	-	-	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	-	-
Upgrades to footpaths and crossings																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	-	-	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	-	-
Introduction of new or extended cycle lanes																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	-	-	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	-	-

12.2.2.1 SEA summary

No significant effects are anticipated during construction of the intervention types considered under cycling in the Metropolitan Area.

During operation, significant positive effects are anticipated in relation to Air Quality (Objective 1) and Climate (Objective 2) for the majority of intervention types as it is anticipated that improvements for walking, wheeling and cycling would encourage a modal shift away from vehicle use to more sustainable transport options, and therefore lead to a reduction in vehicle emissions. Moderate positive effects are also anticipated in respect of the economy (Objectives 12 and 13) for a number of interventions types as a result of reduced congestion, improved access and connectivity for all, aiding economic growth and facilitating movement of goods and services. Improved health and well-being (Objective 14) is also expected due to increased physical activity and as increased uptake of cycling would reduce vehicle use and associated GHG for all intervention types.

No significant adverse effects are anticipated during operation.

The HRA Stage 1 Screening identified Likely Significant Effects (LSE) for the interventions MA-09 (People and Movement Places) and MA-10 (Priority cycle routes) as they may involve works to complete improvements to transport infrastructure, therefore, there is a potential risk of LSE subject to design and location. No LSE were identified for MA-07 (Upgrades to existing cycle routes) or MA-08 (Providing new supporting infrastructure including secure cycle storage and cycle hire options). The HRA Stage 2 ‘Appropriate Assessment’ reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.

Due to expected similar impacts, interventions types have been grouped together for HIA, EqIA and Rural Needs Assessments.

Table 12-21 – Metropolitan Area Cycling HIA, EqIA and Rural Needs Assessment Scores

	HIA Objective									EqIA Objective						Rural Needs Objective		
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	1	2	3
Cycling & Walking and Wheeling ▪ Introduction of new or extended cycle lanes ▪ Increased priority for walking and wheeling ▪ Upgrades to footpaths and crossings																		
Assessment Summary	++	++	++	+	++	++	++	+	++	++	++	++	+	+	++	0	0	+

12.2.2.3 HIA summary

The HIA found significant beneficial effects are anticipated as there will be increased opportunity and priority to cycle which will result in much greater access to this mode of active travel, which would improve access to employment, health, leisure services and facilities (Objective 1) and will be of benefit to all groups, for both intervention types. It is noted that the interventions will allow more active travel for most members of society but benefits may not be as significant for older people or those with health issues or disabilities who may not be able to utilise cycling or walking as a mode of transport. Significant beneficial effects are anticipated for cycling & walking and wheeling interventions as although they would have no direct effect on affordability (Objective 2), they will allow easier access to public transport for those with no access to a private car. Greater active travel provision will allow more journeys to a greater variety of destinations to be made by low / zero cost modes, with benefits for those on lower incomes, although it is noted that not all may be able to afford the purchase of bicycles or scooters. Provision of segregated active travel routes with good design standards etc., as well as a reduction in travel by other modes, will enhance safety and reduce the number of accidents (Objective 3). This will be of particular benefit to pedestrians and cyclists, though there remains a risk for some groups such as children, the elderly and those visually or hearing impaired who could be at risk from collision with cyclists and scooters. Connections between and within communities (Objective 5) will be improved by new and improved active travel routes, though all groups may not all be able to avail of these connections to the same degree. Air and noise pollution (Objective 6) will be reduced through reduced car use expected due to the greater opportunity to cycle, walk and wheel. Benefits would be most experienced at a local level, though all groups would benefit particularly children and individuals with certain health conditions, who are especially vulnerable to poor air quality. Providing new and improving existing cycle, walk and wheel infrastructure will improve the access to active travel (Objective 7). All groups will benefit, though not all (e.g. elderly, those with certain disabilities) will be able to avail to the same degree and for some, access to private vehicles may still be required. Provision of cycle and walking and wheeling infrastructure which provides the opportunity to include features such as lighting will provide a safer environment (Objective 9) for active travel and reduce the risks associated with cycling on roads alongside vehicles.

12.2.2.4 EqIA summary

The EqIA found moderate beneficial effects as a result of increased opportunity and priority to cycle will result in much greater access to active travel, which would improve access to employment, health, leisure services and facilities (Objective 1) and will be of benefit to all groups. Benefits may not be as significant for older people, the disabled / those with certain impairments or those who are pregnant (particularly those in later stages of pregnancy) who may not be able to utilise cycling or walking as a mode of transport. While the cycling & walking and wheeling interventions would have no direct effect on affordability (Objective 2), they will allow easier access to public transport for those with no access to a private car, though of course not all may be able to afford the purchase of bicycles or scooters. Provision of segregated active travel routes with good design standards etc., as well as a reduction in travel by other modes, will enhance safety and reduce the number of accidents (Objective 3). Air and noise pollution (Objective 6) will be reduced through reduced congestion and car use expected due to the greater opportunity to walk, wheel and cycle. Benefits would be most experienced at a local level, although all groups would benefit.

12.2.2.5 Rural Needs summary

No significant positive or negative effects were identified in the Rural Needs Assessment.

12.2.3 Bus and BRT

As noted in the ETP, existing bus and BRT services form the mainstay of public transport provision for the majority of residents within the Metropolitan Area. However, due to inconsistent provision of bus lanes across the network, bus services are impacted by increasing levels of congestion, leading to unreliable journey times and negatively impacting passenger experience.

The introduction of the Glider in 2018, a development since the last Transport Plan, represented a step-change in service provision for the area. As a BRT solution, it provides enhanced service frequencies and reliability, modern tram-style vehicles supported by high levels of bus priority along its routes and off board ticketing and waiting facilities.

ETP identifies a series of key corridors as Quality Mass Movement Routes across the Metropolitan Area. These largely align with the twelve existing Metro bus corridors and two existing Glider routes and represent corridors serving the greatest level of demand across the area.

In classifying these corridors as Quality Mass Movement Routes, ETP is committing to ensuring that the needs of buses (and future Glider network expansions) are the foremost consideration when designing changes to the transport network in these locations.

Interventions to be progressed within and beyond the Plan period along each of these corridors include infrastructure measures, service improvements and operational improvements including:

- Increasing the extents of bus lane provision, as well as targeted bus priority at junctions, to support improved bus journey times and reliability;
- Introducing bus lane enforcement cameras to prevent bus lanes from becoming blocked by unauthorised loading or parking activity within enforcement hours;
- Improving the quality and consistency of bus stops and associated infrastructure; and
- Reducing the complexity of bus routeings and bus route variants along each corridor, which will lead to an overall increase in bus frequency along each corridor.

Additionally, DfI will work with Translink to improve the overall passenger proposition, including reviewing fares, integrating payment mechanisms and ticketing to improve the information available to existing and prospective bus users.

The five ETP schemes considered for the Metropolitan Area in relation to bus and BRT are as listed below, with further detail on the schemes and their descriptions included in Table 12-17:

- **MA-11** - Development of enhanced Bus Performance, Infrastructure and Service Standards
- **MA-12** - Enhanced Bus Passenger Proposition
- **MA-13** - Bus priority infrastructure
- **MA-14** - Belfast Rapid Transit 3 via Lisburn Road
- **MA-15** - Belfast Rapid Transit 3 via Shore Road

The three intervention types applicable to these schemes and considered for ISA assessment are:

- Introduction of new or extended bus lanes
- Updated bus or BRT timetables / routeings
- Introduction of new BRT services

The findings of these intervention type assessments are set out as follows:

Table 12-22 - Metropolitan Area Bus and BRT SEA Scores

		SEA Objective														
		Emissions		Environmental									Economic		Social	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Introduction of new or extended bus lanes																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	0	0	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-
Updated bus or BRT timetables / routeings																
Construction	Positive Residual Effects	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Negative Residual Effects	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Operation	Positive Residual Effects	+	+	0	+	0	0	0	0	0	0	0	0	+	0	+
	Negative Residual Effects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Introduction of new BRT services																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Negative Residual Effects	-	-	0	0	0	0	0	-	-	0	0	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	0	+	0	-	+	+	+	+
	Negative Residual Effects	0	0	0	0	0	0	0	-	0	0	0	0	0	0	-

12.2.3.1 SEA summary

No significant effects are anticipated during construction of the intervention types considered under Bus and BRT.

During operation, significant positive effects are anticipated in relation to Air Quality (Objective 1) and Climate (Objective 2) for Introduction of new or extended bus lanes and Introduction of new BRT services as improvements to the bus and glider network would encourage a modal shift away from car use to public transport, and therefore lead to a reduction in vehicle emissions. Moderate beneficial effects are also anticipated in relation economic factors (Objective 12 and 13) for Introduction of new or extended bus lanes as there may be reduced congestion and improved access and connectivity for all as well as economic growth being aided and facilitating movement of goods and services. Health and wellbeing (Objective 14) is expected to have significant positive effects for Introduction of new or extended bus lanes as a result of increased bus usage which would reduce vehicle use and associated GHG, therefore providing health benefits to all citizens.

No significant adverse effects are anticipated during operation.

The HRA Stage 1 Screening identified Likely Significant Effects (LSE) for the interventions MA-13 (Bus priority infrastructure), MA-14 (Belfast Rapid Transit 3 via Lisburn Road) and MA-15 (Belfast Rapid Transit 3 via Shore Road) as they may involve works to complete improvements to transport infrastructure, therefore, there is a potential risk of LSE subject to design and location. The HRA Stage 2 ‘Appropriate Assessment’ reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.

Due to expected similar impacts, interventions types have been grouped together for HIA, EqIA and Rural Needs Assessments.

Table 12-23 – City Centre Bus Rapid Transit HIA, EqIA and Rural Needs Assessment Scores

	HIA Objective									EqIA Objective						Rural Needs Objective		
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	1	2	3
Bus and BRT Upgrades ▪ Introduction of new or extended bus lanes ▪ Bus and BRT Updated timetables /routeings ▪ Introduction of new BRT services																		
Assessment Summary	++	+	++	+	++	+	+	+++	+	++	+	++	+	+	+	0	0	+

12.2.3.3 HIA summary

The HIA identified significant positive effects as a result of improvements to the bus network and increased service and coverage will reduce congestion and improve access to employment, educational, health and leisure services and facilities and amenities (Objective 1). Benefits may not be as significant for older people or those with certain health problems who may not be able to, or struggle to, utilise bus and glider services as a mode of transport and may still be reliant on private vehicles. It is anticipated Bus and BRT Upgrades will lead to reduced congestion and a more efficient bus network. This would likely reduce the potential for accidents and will reduce stress (Objective 3) in the travelling population – potentially reducing conflict among travellers. Groups such as the elderly and disabled may not be able to avail of bus and glider services to as great an extent as other groups and would therefore not experience such significant benefits. Connections between and within communities (Objective 5) will be enhanced by the improved bus network and increased service and coverage as well as improved access to cycling, walking and wheeling, with benefits for all groups. Major beneficial effects are anticipated for all groups from improvements to the bus network and increased service and coverage will improve access to public transport (Objective 8).

12.2.3.4 EqIA summary

The EqIA identified significant positive effects in relation improvements to the bus network and increased service and coverage which will reduce congestion and improve access to employment, educational, health and leisure services, facilities and amenities (Objective 1). While public transport services are increasing, some groups may have decreased ability to cope with timetable and route changes, such as those with learning difficulties, some ethnic groups where English may not be their first language and those with sight or hearing issues. It is anticipated Bus and BRT Upgrades will lead to reduced congestion and a more efficient bus network. This would likely reduce the potential for accidents and will reduce stress (Objective 3) in the travelling population – potentially reducing conflict among travellers. It is worth noting that some people from ethnic groups, females, young people, the elderly, those of different sexual orientation or gender reassignment may have perceptions of being more vulnerable on public transport.

12.2.3.5 Rural Needs summary

No significant positive or negative effects were identified in the Rural Needs Assessment.

12.2.4 Park & Ride

Within the Metropolitan Area, DfI and Translink operate eleven existing bus and rail based P&R sites. Across Northern Ireland as a whole, 74 P&R and Park & Share sites operate, the majority of which provide bus or rail service options to Belfast.

The Regional Transport Plan will provide recommendations relating to changes to P&R sites that focus on providing long-distance, strategic transport connections across the region, including to and from the Metropolitan Area. However, more local journeys can also be accommodated using P&R services. In particular, the locations of the existing sites at Black's Road, Cairnshill and Dundonald perform a dual role of capturing long distance car journeys for their final leg into Belfast city as well as providing onward bus journey options for residents that walk, cycle or drive short distances from within or close to the Metropolitan Area.

ETP aims to enhance the attractiveness of P&R use within and beyond the Metropolitan Area. Part of doing this includes introducing measures to improve bus journey times and reliability for journeys from peripheral P&R sites into the city – the proposed enhancements along the Quality Mass Movement Routes will support this. In doing this, there is no longer a desire to promote the use of the existing Eastside and Northside P&Rs – future alternative transport related uses for these sites will be considered during the plan period.

Additionally, to maximise the benefits of the proposed Quality Mass Movement Routes, it is proposed that new P&R sites are considered for introduction on the periphery of the Metropolitan Area. These sites will help to connect people living beyond the Metropolitan Area with key destinations within Belfast via the enhanced bus and Glider services running along Quality Mass Movement Routes.

The six ETP schemes considered for the Metropolitan Area in relation to park and ride are as listed below, with further detail on the schemes and their descriptions included in Table 12-17:

- **MA-16** - P&R / Travel Hub services
- **MA-17** - McKinstry Road P&R (new)
- **MA-18** - Black's Road P&R link to Lisburn Road (enhancement)
- **MA-19** - Holywood Road P&R (new)
- **MA-20** - Repurposing of city centre P&Rs
- **MA-21** - Shore Road P&R (new)

The two intervention types applicable to these schemes and considered for ISA assessment are:

- Updated bus or BRT timetables / routeings
- Park and ride
- Introduction of new BRT services
- New travel hubs

The findings of these intervention type assessments are set out as follows:

Table 12-24 – Metropolitan Area Park & Ride SEA Scores

		SEA Objective														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Park and Ride																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	+	+	++	0	0	0
	Negative Residual Effects	-	-	-	-	-	-	-	-	-	-	-	0	0	-	-
Operation	Positive Residual Effects	+	+	+	+	0	0	+	+	+	0	+	+	++	++	++
	Negative Residual Effects	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0
Updated bus or BRT timetables / routeings																
Construction	Positive Residual Effects	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Negative Residual Effects	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Operation	Positive Residual Effects	+	+	0	+	0	0	0	0	0	0	0	0	+	0	+
	Negative Residual Effects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Introduction of new BRT services																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Negative Residual Effects	-	-	0	0	0	0	0	-	-	0	0	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	0	+	0	-	+	+	+	+
	Negative Residual Effects	0	0	0	0	0	0	0	-	0	0	0	0	0	0	-
New travel hubs																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	+	+	++	0	0	0
	Negative Residual Effects	-	-	-	-	-	-	-	-	-	-	-	0	0	-	-
Operation	Positive Residual Effects	+	+	+	+	0	0	+	+	+	0	+	+	++	++	++
	Negative Residual Effects	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0

12.2.4.1 SEA summary

During the construction phase, significant positive effects are anticipated in terms of promoting economic growth and job creation (Objective 12) for Park and Ride and New travel hubs as these interventions may create employment opportunities.

During operation, significant positive effects are anticipated in relation to Air Quality (Objective 1) and Climate (Objective 2) for Introduction of new BRT services as improvements to the bus and glider network would encourage a modal shift away from car use to public transport, and therefore lead to a reduction in vehicle emissions. Significant positive effects are anticipated during operation for supporting the wider coordination of land use, energy planning and transport planning (Objective 13) for Park and Ride and New travel hubs as sites would require effective transport planning coordination, land use planning regarding new sites, and can result in economic and social benefits. Moderate beneficial effects are expected for health and wellbeing and equality of opportunity (Objective 14 and 15) for Park and Ride and New travel hubs. This is due to increased use of public transport and active travel reducing vehicle use and associated GHG, therefore providing health benefits. Additionally, access may be increased to employment opportunities and public services / recreational facilities, promoting greater equality of opportunity, as they would provide greater connectivity and accessibility.

The HRA Stage 1 Screening identified Likely Significant Effects (LSE) for the majority of Park and Ride interventions as they may involve works to complete improvements to transport infrastructure, therefore, there is a potential risk of LSE subject to design and location. No LSE were identified for the intervention MA-20 (Repurposing of city centre P&Rs). The HRA Stage 2 ‘Appropriate Assessment’ reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.

Table 12-25 – City Centre travel hubs HIA, EqIA and Rual Needs Assessments

	HIA Objective									EqIA Objective						Rural Needs Objective		
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	1	2	3
Park and Ride & Travel Hubs ▪ Park and ride ▪ New travel hubs																		
Assessment Summary	++	+	++	++	++	+	++	++	++	++	+	++	+	++	++	0	0	+
Bus and BRT Upgrades ▪ Updated bus or BRT timetables / routeings ▪ Introduction of new BRT services																		
Assessment Summary	++	+	++	+	++	+	+	+++	+	++	+	++	+	+	+	0	0	+

12.2.4.3 HIA summary

The HIA has identified significant positive effects in relation to a number of its objectives. Park and Ride sites will result in greater access to different transport modes including public transport supported by updated bus timetables and routeings, walking and cycling, which would improve access to employment, health, leisure services and facilities (Objective 1) and will be of benefit to all groups. Benefits may not be as significant for older people or those with health problems who may not be able to utilise bus services, walking or cycling as modes of transport. It is anticipated these interventions will lead to reduced congestion. This would likely reduce the potential for accidents and will reduce stress (Objective 3) in the travelling population – potentially reducing conflict among travellers. As noted, groups such as the elderly, disabled and those heavily pregnant may not be able to avail of active travel and bus services to as great an extent as other groups and therefore not experience such significant benefits. Reduced congestion will lead to reduced severance (Objective 4) and in addition, connections will be enhanced through Park and Ride sites, with benefits for all groups with less significant benefits for elderly, disabled and those heavily pregnant may not be able to avail of the interventions. Connections between and within communities (Objective 5) will be enhanced by the improved access to public transport and updated bus timetables and routeings, with benefits for all groups. Provision of walking and cycling facilities at the new sites may improve access to active travel modes (Objective 7) and the Park and Rides and updated bus timetables and routeings will improve access to public transport (Objective 8). Provision of Park and Ride sites can enhance actual and perceived safety and security (Objective 9) by reducing road congestion and traffic-related risks, fostering safer environments for all users. Features such as well-lit areas, CCTV, clear signage, and secure infrastructure would improve physical safety and provide a greater sense of security, particularly for vulnerable groups like children and disabled individuals.

12.2.4.4 EqIA summary

Significant positive effects have also been identified through the EqIA. New Park and Rides sites will result in greater access to different transport modes including public transport along with updated bus timetables and routeings, which would improve access to services, facilities and amenities (Objective 1) and will be of benefit to all groups. Benefits may not be as significant for older people or those with certain health problems who may not be able to utilise bus services, walking or cycling as modes of transport. It is anticipated these interventions will lead to reduced congestion. This would likely reduce the potential for accidents and will reduce stress (Objective 3) in the travelling population – potentially reducing conflict among travellers. As noted, groups such as the elderly, disabled and those heavily pregnant may not be able to avail of active travel and bus services to as great an extent as other groups and therefore not experience such significant benefits. Reduced congestion will lead to reduced severance (Objective 5) and in addition, connections will be enhanced through travel hubs, with benefits for all groups with less significant benefits for elderly, disabled and those heavily pregnant may not be able to avail of the interventions. It is considered these interventions will encourage public transport and active travel usage and reduce reliance on private vehicles for all journeys, reducing air, noise and light pollution (Objective 6). Benefits would be most experienced at a local level across all groups, although particularly benefiting children and those with certain health issues.

12.2.4.5 Rural Needs summary

No significant positive or negative effects were identified in the Rural Needs Assessment.

12.2.5 Traffic Management and Parking

The ETP acknowledges that car travel will always have an important and in some instances necessary role to play for the transport network. It would be impossible for the active travel or public transport network to effectively cater for the vast and varied travel demands of all residents and visitors. The proposed changes to the transport network relating to provision for general traffic, as well as freight and goods vehicles, are presented in relation to each of the PMF categories. The proposed interventions reflect the level of priority given to motorised vehicles in each category's modal hierarchy.

The proposals presented below reflect the long-term aspirational changes to traffic management arrangements across the Metropolitan Area.

- **People Places** - Within People Places, which cover predominantly residential areas where most people start and end their everyday journeys, provision for car parking and loading activity will be maintained, with measures to reduce conflict between modes introduced.
- **People and Movement Places** - Maintaining adequate parking and servicing facilities within People and Movement Places, which centre on clusters of shops and other local amenities, will be important over the Plan period. However, these locations are also focal points for proposed enhancements to active travel and public transport facilities. It is envisaged that, as access to these locations via sustainable transport modes improves, the need for extensive parking provision will decrease
- **Quality Mass Movement Routes** – These routes have been identified for corridors where there is high demand for travel and aligned with the existing key Metro bus service routes. The priority on these corridors will be to introduce increased levels of bus priority
- **Connecting Movement Routes** – These routes provide key connections between different areas within, into and out of the Metropolitan Area. The modal hierarchy along these routes mean that some changes to traffic movements and parking will be required, however the changes are expected to be less extensive than on other parts of the network
- **Strategic Movement Routes** – These routes are designated where part of the Regional Strategic Transport Network (RSTN) intersects the Metropolitan Area and where the movement of longer-distance, strategic traffic is required to traverse the settlement. As such, the majority of interventions proposed on these routes are the subject of the Regional Transport Plan. The measures recommended through the ETP for these routes are focused on ensuring that local movements that need to use the RSTN within ETP settlements can be accommodated efficiently and safely

The six ETP schemes considered for the Metropolitan Area in relation to traffic management and parking are as listed below, with further detail on the schemes and their descriptions included in Table 12-17:

- **MA-22** - Expansion of areas of parking restraint
- **MA-23** - Rationalisation of on street parking provision
- **MA-24** - Targeted amendments to on street parking and loading activity
- **MA-25** - Targeted changes to speed limits MA-26 -
- **MA–26** - Introduction of new south facing slip roads at the Black's Road junction of the M1
- **MA-27** - Targeted hard shoulder running on M1 and M2 to improve reliability and punctuality of bus services

The three intervention types applicable to these schemes and considered for ISA assessment are:

- Speed limit reduction
- Parking adjustments (reduction in parking capacities, changes to charges and intro of RPZs)
- Highway developments (new highway / junction schemes)
- Introduction of new or extended bus lanes

The findings of these intervention type assessments are set out as follows:

Table 12-26 – Metropolitan Area Traffic Management and Parking SEA Scores

		SEA Objective														
		Emissions		Environmental									Economic		Social	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Speed limit reduction																
Construction	Positive Residual Effects	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Negative Residual Effects	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Operation	Positive Residual Effects	+	+	0	+	0	0	0	0	0	0	0	0	+	++	++
	Negative Residual Effects	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0
Highways (new highway / junction schemes)																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	++	0	0	0
	Negative Residual Effects	--	--	--	--	-	-	-	--	-	--	--	0	0	-	0
Operation	Positive Residual Effects	0	0	+	+	0	0	0	0	+	+	0	+++	++	++	+
	Negative Residual Effects	--	--	-	-	-	0	-	--	-	0	0	0	0	-	-
Parking (reduction in parking capacities, changes to charges and intro of RPZs)																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	0	0	0	0	0	0	0	0	0
Operation	Positive Residual Effects	++	++	0	+	0	0	0	0	0	0	0	+	+	+	+
	Negative Residual Effects	0	0	0	0	0	0	0	0	0	0	0	0	0	-	--
Introduction of new or extended bus lanes																
Construction	Positive Residual Effects	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0
	Negative Residual Effects	-	-	0	-	0	0	0	0	-	0	-	0	0	-	0
Operation	Positive Residual Effects	++	++	0	+	0	0	+	+	+	0	0	++	++	++	+
	Negative Residual Effects	0	0	-	0	0	0	0	0	0	0	0	0	0	0	-

12.2.5.1 SEA summary

During construction, significant negative effects are expected for new highway schemes in terms of air quality and carbon (Objective 1 and Objective 2). This due to dust, air, noise and CO_2 emissions expected during the construction phase. Significant adverse effects are anticipated for water (Objective 3) as new highways would lead to an increase in impermeable area and therefore contribute to increased flood risk by increasing runoff to nearby watercourses. New road infrastructure may lead to direct loss of or encroachment onto habitat or the severance / fragmentation of green infrastructure and therefore significant adverse effects are anticipated for biodiversity (Objective 4). During construction new highways may have a detrimental effect on landscape (Objective 8), depending on their location. Moderate adverse effects are anticipated for soils (Objective 10) as new highways have the potential to disturb best and most versatile agricultural land and soils. As construction of these interventions would result in a requirement for additional resources and increased waste production, significant adverse effects are anticipated for natural resources (Objective 11). The construction of new highways will provide employment opportunities and therefore moderate beneficial effects are anticipated for the economy (Objective 12).

During operation, significant negative effects are expected for new highway schemes in terms of air quality and carbon (Objective 1 and Objective 2) as emissions are likely to increase during operation of new highways. However, significant positive effects are anticipated in relation to Air Quality (Objective 1) and Climate (Objective 2) for Parking and Introduction of new or extended bus lanes as it is anticipated that a reduction in parking availability and changes to charges may promote more sustainable travel methods which will lead to a reduction in vehicle emissions and improvements to the bus and glider network would encourage a modal shift away from car use to public transport. Significant negative effects are also anticipated for landscape (Objective 8) as new highways may have a detrimental effect on landscape depending on their location. Moderate beneficial effects are also anticipated for speed limit reduction in terms of equality of opportunity (Objective 15), as it will create safer streets particularly for children, elderly, disabled and pregnant women but all groups will benefit, by slowing traffic, reducing vehicle use and air pollution

Significant beneficial effects are anticipated for the economy (Objective 12) for Highways and Introduction of new or extended bus lanes through improved accessibility and connectivity to jobs and skills, with new links and potentially reduced congestion. New roads would potentially allow the ‘opening up’ of development lands as well as increase access to new growth hubs. This would require effective land use and transport planning coordination (Objective 13). Significant beneficial effects are anticipated for speed limit reduction and new highways in terms of health and well-being (Objective 14) as access may be increased to employment opportunities and public services / recreational facilities, as well as unlocking land development potential and safer roads from reduced vehicle speed which may encourage increased physical activity.

The HRA Stage 1 Screening identified Likely Significant Effects (LSE) for the intervention MA-26 (P Introduction of new south facing slip roads at the Black’s Road junction of the M1) as it may involve works to complete improvements to transport infrastructure, therefore, there is a potential risk of LSE subject to design and location. The HRA Stage 2 ‘Appropriate Assessment’ reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.

Table 12-27 – Metropolitan Area Traffic Management and Parking HIA, EqIA and Rural Needs Assessment Scores

	HIA Objective									EqIA Objective						Rural Needs Objective		
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	1	2	3
Speed limit reduction																		
Assessment Summary	++	0	++	+	+	++	++	0	++	++	0	++	0	+	++	0	0	+
Parking ▪ Parking (reduction in parking capacities, changes to charges and intro of RPZs)																		
Assessment Summary	+	--	+	+	+	+	0	0	+	+	--	+	0	+	+	0	0	0
Bus and BRT Upgrades ▪ Introduction of new or extended bus lanes																		
Assessment Summary	++	+	++	+	++	+	+	+++	+	++	+	++	+	+	+	0	0	+
Highways (new highway / junction schemes)																		
Assessment Summary	++	+	+	+/-	+	--	+	+	+	++	+	+	0	+/-	--	0	0	+

12.2.5.3 HIA summary

The HIA identified significant positive effects in a number of areas including as a result of speed limit reduction, new roads and new or extended bus lanes are anticipated to reduce congestion and make the network more efficient, and thereby improve access to services (Objective 1). While all groups would benefit from new highways, it is anticipated this will primarily benefit those in ownership of cars, though some benefit will likely be experienced by bus passengers and users of taxis. Speed limit reduction of highways will enhance safety and reduce the number of accidents (Objective 3) particularly for pedestrians and cyclists, children, elderly, disabled and pregnant women but all groups will benefit, by slowing traffic, reducing vehicle use and air pollution. Connections between and within communities (Objective 5) will be enhanced by the improved bus network. Air, noise and light pollution will be reduced (Objective 6) through reduced car use expected due to speed limit reduction, although is expected to be increased as result of new highway schemes and associated increase in vehicles. Groups such as young children, those with low income (living in more deprived areas) and those with certain health conditions could be disproportionately impacted from this expected increase in pollution. Reduced speed limits will create safer streets, improving access to active travel modes (Objective 7) although not all groups (e.g. elderly, those with certain disabilities) will be able to avail to the same degree and for some, access to private vehicles may still be required. Major beneficial effects are anticipated for all groups from improvements to the bus network and increased service and coverage will improve access to public transport (Objective 8). Speed limit reduction of highways will create safer streets particularly for vulnerable groups including children, elderly, disabled and women but all groups will benefit, by decreasing the likelihood and severity of accidents, making streets feel safer for pedestrians and cyclists (Objective 9).

12.2.5.4 EqIA Summary

Significant positive effects identified through the EqIA include improved access to services, facilities and amenities (Objective 1) as a result of speed limit reduction, reduced congestion and a more efficient network from new roads. While all groups will benefit, it is anticipated that this will primarily benefit those in ownership of cars, though some benefit will likely be experienced by bus passengers and users of taxis. Speed limit reduction will create safer streets (Objective 3) particularly for pedestrians and cyclists, children, elderly, disabled and pregnant women but all groups will benefit, by slowing traffic and reducing vehicle use. Air, noise and light pollution will be reduced (Objective 6) through reduced car use expected due to speed limit reduction, although is expected to be increased as result of new highway schemes and associated increase in vehicles. Effects from new highways would be most experienced at a local level, with particular negative implications for the young, the elderly, those with certain health conditions and potentially those from ethnic backgrounds who are more likely to live in poorer housing in deprived areas (which typically have worse air quality).

12.2.5.5 Rural Needs Summary

No significant positive or negative effects were identified in the Rural Needs Assessment.

12.2.6 Metropolitan Area Summary

A variety of interventions are proposed in the Metropolitan Area, incorporating seven intervention types for assessment through the ISA Framework. These assessments and the scores have been summarised and full assessment tables are included in Appendix E.

The tables in this section show that there are limited significant effects anticipated during construction of the interventions, however significant adverse effects are anticipated across a number of interventions in relation to a new highway scheme. The construction of a new highway is expected to cause significant adverse affects on air, carbon, biodiversity, landscape, soils and the potential of natural resources. Moderate beneficial effects are anticipated for new highway schemes and park and ride sites in relation to promoting economic growth and job creation as they may provide job opportunities during their construction. During operation, significant beneficial effects are expected for a number of intervention types in relation to air quality and carbon as interventions improving active travel and public transport are expected to result in a reduction in private vehicle use and associated emissions. Significant beneficial effects are also anticipated across a number of intervention types where connectivity is increased, effective land use and transport planning coordination results in economic and social benefits and health and wellbeing is improved through increased use of active travel as well as a reduction in private vehicles. During operation, the only significant adverse effects anticipated are in relation to new highway schemes. These are in relation to air and carbon emissions associated with private vehicle use and on landscape as a result of the new infrastructure.

The HRA AA reported that the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects in the Metropolitan area, with the mitigation proposed.

In terms of health and equality, the interventions in the Metropolitan Area are anticipated to be largely beneficial. This is a result of improved accessibility, opportunities to improve safety and security, better connections within communities and improved access to public transport and active travel. Significant adverse effects are anticipated in relation to air, noise, odour and light pollution from transport as a result of a new highway scheme. Equality of opportunity is anticipated to be significantly benefitted where reductions in speed limits create safer streets particularly for children, elderly, disabled and pregnant women and park and rides sites increase access to employment opportunities and public services / recreational facilities.

Overall the interventions proposed in the Metropolitan Area will be largely beneficial in terms of air, carbon, economic and social aspects and health and equalities, through encouraging use of active travel and public transport and improving access and connectivity, though some adverse effects (including significant effects) are anticipated from a highway scheme.

Table 12-28 – Metropolitan Area SEA Construction Summary Scores

	SEA Objective																													
	Emissions				Environmental																		Economic				Social			
	Protect and improve air quality		Reduce carbon dioxide (CO_2) emissions from transport and contribute to meeting net zero carbon targets		Increase resilience of the transport network to the effects of a changing climate such as extreme weather events		Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain		Protect and enhance sites designated internationally for nature conservation purposes (HRA objective)		Protect, enhance and promote geodiversity		Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings		Protect and enhance the character and quality of landscapes, townscapes and visual amenity		Protect and enhance the water environment		Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources		Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated		Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all		Support the wider coordination of land use, energy planning and transport planning across the Eastern Transport Area and into surrounding regions		Improve health and well-being for all citizens and reduce inequalities in health (HIA specific objective)		Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society (EqIA specific objective)	
Intervention Type	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
Speed limit reduction	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Introduction of new or extended bus lanes	0	-	0	-	0	0	0	-	0	0	0	0	0	0	0	0	0	-	0	0	0	-	+	0	0	0	0	-	0	0
Updated bus or BRT timetables / routeings	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Upgrades to footpaths and crossings	0	-	0	-	0	0	0	-	0	0	0	0	0	-	0	-	0	-	0	0	0	-	+	0	0	0	0	-	0	0
Introduction of new or extended cycle lanes	0	-	0	-	0	0	0	-	0	0	0	0	0	-	0	-	0	-	0	0	0	-	+	0	0	0	0	-	0	0
Highways (new highway / junction schemes)	0	--	0	--	0	--	0	--	0	-	0	-	0	-	0	--	0	-	0	--	0	--	++	0	0	0	0	-	0	0
Park and Ride	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	+	-	+	-	++	0	0	0	0	-	0	-
Parking (reduction in parking capacities, changes to charges and intro of RPZs)	0	-	0	-	0	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New travel hubs	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	+	-	+	-	++	0	0	0	0	-	0	-

Table 12-29 – Metropolitan SEA Operation Summary Scores

	SEA Objective																											
	Emissions				Environmental																Economic				Social			
	Protect and improve air quality		Reduce carbon dioxide (CO_2) emissions from transport and contribute to meeting net zero carbon targets		Increase resilience of the transport network to the effects of a changing climate such as extreme weather events		Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain		Protect and enhance sites designated internationally for nature conservation purposes (HRA objective)		Protect, enhance and promote geodiversity		Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings		Protect and enhance the character and quality of landscapes, townscapes and visual amenity		Protect and enhance the water environment		Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources		Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated		Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all		Support the wider coordination of land use, energy planning and transport planning across the Eastern Transport Area and into surrounding regions		Improve health and well-being for all citizens and reduce inequalities in health (HIA specific objective)		Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society (EqIA specific objective)	
Intervention Type	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
Speed limit reduction	+	0	+	0	0	0	+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	+	0	++	0	++	0
Introduction of new or extended bus lanes	++	0	++	0	0	-	+	0	0	0	0	0	+	0	+	0	+	0	0	0	0	0	++	0	++	0	++	0	+	-
Updated bus or BRT timetables / routeings	+	0	+	0	0	0	+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+	0	0	0	+	-
Upgrades to footpaths and crossings	++	0	++	0	0	-	+	0	0	0	0	0	+	0	+	0	+	0	0	0	0	0	++	0	++	0	++	-	+	-
Introduction of new or extended cycle lanes	++	0	++	0	0	-	+	0	0	0	0	0	+	0	+	0	+	0	0	0	0	0	++	0	++	0	++	-	+	-
Highways (new highway / junction schemes)	0	--	0	--	+	-	+	-	0	-	0	0	0	-	0	--	+	-	+	0	0	0	+++	0	++	0	++	-	+	-
Park and Ride	+	0	+	0	+	0	+	0	0	0	0	0	+	0	+	-	+	0	0	0	+	0	+	0	++	0	++	0	++	0
Parking (reduction in parking capacities, changes to charges and intro of RPZs)	++	0	++	0	0	0	+	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+	0	+	0	+	-	+	--
New travel hubs	+	0	+	0	+	0	+	0	0	0	0	0	+	0	+	-	+	0	0	0	+	0	+	0	++	0	++	0	++	0

Table 12-30 – Metropolitan Area HIA, EqIA and Rural Needs Assessment Summary Scores

Intervention Types	HIA Objective									EqIA Objective						Rural Needs Objective		
	Improve accessibility to employment, educational, health and	Improve affordability of transport	Improve safety of the transport network (including roads) and	Reduce severance	Improve connections between and within communities	Reduce air, noise, odour and light pollution from transport	Improve access to active travel modes	Improve access to public transport	Improve actual and perceived safety and security issues	Improve accessibility to services, facilities and amenities for all, in	Improve affordability of transport	Improve safety of the transport network (including roads) and	Improve provision of public transport in rural areas, coastal	Reduce severance	Reduce air, noise, odour and light pollution from transport	Increase access via a range of transport modes for rural communities.	Enable economic growth, and employment diversification in rural	Connecting people with nature
Bus and BRT Upgrades	++	+	++	+	++	+	+	+++	+	++	+	++	+	+	+	0	0	+
Cycling & Walking and Wheeling	++	++	++	+	++	++	++	+	++	++	++	++	+	+	++	0	0	+
Speed limit reduction	++	0	++	+	+	++	++	0	++	++	0	++	0	+	++	0	0	+
Park and Ride & Travel Hubs	++	+	++	++	++	+	++	++	++	++	+	++	+	++	++	0	0	+
Highways (new highway / junction schemes)	++	+	+	+/-	+	--	+	+	+	++	+	+	0	+/-	--	0	0	+
Parking	+	--	+	+	+	+	0	0	+	+	--	+	0	+	+	0	0	0

13. Mitigation

The term mitigation encompasses any approach that is aimed at preventing, reducing or offsetting any significant adverse environmental effects that have been identified. In practice, a range of measures applying one or more of these approaches is likely to be considered in mitigating any significant adverse effects predicted as a result of implementing the ETP. In addition, it is also important to consider measures aimed at enhancing positive effects. All such measures are generally referred to as mitigation measures.

However, the emphasis should be in the first instance on proactive avoidance of adverse effects. Only once alternative options or approaches to avoiding an adverse effect have been examined, should mitigation then examine ways of reducing the scale / importance of the effect.

Mitigation can take a wide range of forms, including:

- Refining Intervention measures in order to improve the likelihood of positive effects and to minimise adverse effects.
- Technical measures (such as setting guidelines) to be applied during the implementation phase.
- Identifying issues to be addressed in project assessment (including but not limited to WebTAG, Environmental Impact Assessment, Health Impact Assessment, Equality Impact Assessment and the development of Environmental Management Plans) for certain projects or types of project.
- Proposals for changing other plans and programmes.
- Contingency arrangements for dealing with possible adverse effects – these could include for example pollution management plans, use of spill kits etc.

13.1 Mitigation approaches applied through ISA

A number of mitigation approaches have been used through development of the ETP in order to mitigate potential adverse effects.

Note typical mitigation that may apply to interventions promoted under respective Intervention Types have been outlined for in assessment tables in Appendix E. **Note that mitigation for individual schemes would be developed further and expanded upon as part of the planning and design process and would be informed by any additional assessment such as EIA, HIA, HRA , EqIA and so on. The mitigation would then be detailed in a Construction Environmental Management Plan that would be enacted during the construction phase.**

These have included the following:

Table 13-1 - How mitigation has been incorporated into the ETP

Approach to mitigation	How has this been incorporated into the ETP?
Refining the ETP in order to better reflect the ISA Objectives and improve the likelihood of positive effects and to minimise adverse effects	Assessment was made of a draft ETP and recommendations were made in relation to clarifying and bolstering aspects of sustainability. Ongoing iterative discussion also took place with the Plan making team. This iterative process has enabled the development of an ETP Vision and Objectives that most closely align to ISA considerations. Section 3 (Wider Context) of the ETP recognises the key role transport plays across a range of other areas. Outlined here are sustainability issues raised by the ISA including social inclusion, health and wellbeing, climate change and resilience, the environment (including specifically air quality and habitat protection). Section 3 then identifies ETP aims applicable to the Plan area, as follows: ▪ To increase the choice of transport options available via the ETP and eliminating barriers to use will help improve access and deliver benefits ▪ To support increased uptake in active modes of transport including walking, wheeling and cycling ▪ To reduce the number of collisions involving vulnerable road users across the Plan area ▪ To support a reduction in carbon emissions from transport, working towards net zero ▪ To protect the region's air quality and habitats. ▪ To support housing and employment growth across the region ▪ To improve the resilience of the region's transport network. New elements relating to Sustainability was added to the ETP and this sets out approaches to addressing sustainability issues going forward. Of particular note, clear commitment is made to undertaking as required, Habitats Regulation Assessment and Environmental Impact Assessment. Construction Environmental Management Plans will also be developed.
Refining Interventions / Measures in order to improve the likelihood of positive effects and to minimise adverse effects	Interventions have been set out at this stage of ETP development and as locations have not been confirmed in all cases they have been assessed in the ISA by intervention type e.g. walking and wheeling, with appropriate mitigation considered. A range of mitigation measures were developed to cover the Design, Construction and Operation stages of schemes. An overview of these mitigation measures for each ISA Objective is provided in the assessment tables in Appendix E.
Technical measures (such as requiring adherence to appropriate guidelines) to be applied during the implementation phase	Clear commitment is made within ETP to undertake the required assessments at appropriate stages as set out above. This depends on adherence to guidance etc as required. For example, clear reference is made within ETP that DfI will ensure to use the latest inclusive design standards across the transport network for any new or improved infrastructure.

Approach to mitigation	How has this been incorporated into the ETP?
Identifying issues to be addressed in Scheme / Intervention assessment (i.e. at Project level), including but not limited to WebTAG, Environmental Impact Assessment and the development of Environmental Management Plans, for certain projects types of project	The ETP clearly sets out a process of how environmental issues will be considered in future scheme development. ETP sets out that dependent on the scheme, assessment will include as required, Habitats Regulation Assessment and Environmental Impact Assessment. Where these statutory assessments are undertaken, it is anticipated that they will be guided by the HM Treasury Green Book and DfT Transport Appraisal Guidance (or equivalents prevailing at the time) throughout the life of the ETP. *Note typical specific mitigation that may arise from interventions promoted under respective Intervention Types have been outlined.*
Proposals for changing other plans and programmes	The ETP does not propose to change other plans and programmes. The ISA therefore does not make mitigation recommendations in this regard. Section 1 of the ETP (Local Development Plan Context) does however note that the transport plans are being prepared by DfI in parallel with the Local Development Plans (LDPs) prepared by the councils. The ETP supports the preparation of Local Policy Plans (LPP) for each of the five council areas. The integration of land-use and transport planning processes provides a unique opportunity to combine the shared objectives of central and local government. The LDP process involves Councils publishing Strategies which set policy for their areas and outlines potential levels of growth, areas for development and their uses without being specific about individual zonings and locations. Similarly, DfI produced Transport Studies which identified potential local transport measures which would be needed for each council area. In this way the processes took account of each other. The ETP sets out that DfI has sought to 'steer' new development towards sustainable locations. This was done whilst also identifying the broad types of measures needed to deal with existing and potential new development to deliver wider social and environmental objectives. The ISA then considers the potential for cumulative impacts arising from interaction with other plans and policies. While further assessment will be required when more detail is known in respect of interventions proposed within the ETP, including their potential to interact with other plans and policies, where relevant mitigation measures have been identified.
Contingency arrangements for dealing with possible adverse effects	The ISA has proposed a series of monitoring indicators. It is anticipated that the monitoring programme will cover significant social, environmental and economic effects and which will involve measuring indicators that will enable the establishment of a causal link between the implementation of the ETP and the likely significant effects (both positive and negative) being monitored. This will allow identification at an early stage of unforeseen adverse effects and allow appropriate remedial action to be undertaken.

14. Cumulative, synergistic and indirect effects

14.1 Introduction

Under the SEA Regulations, there is a requirement to consider cumulative, synergistic and indirect effects of implementation of the ETP. Secondary and indirect effects are effects that are not a direct result of the ETP, but which occur away from the original effect or as the result of a complex pathway. Cumulative effects arise where several proposals or elements individually may or may not have significant effect but in-combination have a significant effect due to spatial crowding or temporal overlap. Synergistic effects are when two or more effects act together to create an effect greater than the simple sum of the effects when acting alone.

14.2 Likely cumulative effects

ISA Objectives which have the potential for cumulative effects have been identified from the analysis of plans and programmes, the baseline data, consultation responses and an examination of the identified key issues and cumulative, synergistic and indirect effects have also been considered during the ISA. These relate to air quality, carbon emissions, biodiversity, landscapes and townscapes, climate resilience, soil, agricultural resources and contaminated land, economic growth and health and well-being and equalities.

14.2.1 In plan cumulative effects

The results of the direct effects of the ETP proposals are discussed in Chapter 12. It is considered that the policy proposals can interact cumulatively across sustainability issues as shown in Table 13-1. The identification of these effects already takes into account the fact that recommendations to improve the sustainability performance of the ETP have been incorporated through iterative development between ISA team and Plan making team.

Table 14-1 - Anticipated cumulative, synergistic and indirect effects for ETP

Effects	Causes	Significance
Air pollution emissions	It is considered that the ETP will act to protect and enhance air quality and will have an overall cumulative beneficial effect. This beneficial effect will be derived through interventions that seek to reduce the volume of traffic, improve connectivity and put an emphasis on more sustainable modes (including active travel) which will lead to a reduction in air pollutant emissions.	Anticipated short to long term moderate beneficial effects. There will be likely some continuing emissions due to residual reliance on private cars (for example for those who are dependent upon cars due to not being able to adapt to other modes due to mobility issues) and enhanced services (including increased frequency) of road / rail
Carbon emissions	It is considered that the ETP will act to reduce carbon emissions from transport and contribute to meeting net zero targets and will have an overall cumulative beneficial effect. This will be derived through interventions that seek to reduce the volume of traffic, improve connectivity and put an emphasis on more sustainable modes (including active travel) which will lead to a reduction in vehicle emissions.	Anticipated short to long term moderate beneficial effects. There will be likely some continuing emissions due to residual reliance on private cars (for example for those who are car dependent due to not being able to adapt to other modes due to mobility issues) and enhanced services (including increased frequency) of road / rail
Biodiversity	Cumulative beneficial effects can be anticipated through interventions which put an emphasis on reducing emissions (thereby reducing pollution deposition), as well as place making and the development of active travel routes, that allows opportunities for planting (ideally of native species) and ultimately achieve biodiversity net gain. Disturbance to habitats (as well as 'road kill') would also be reduced through a general reduction in journeys and traffic congestion. However, adverse effects could also occur through development of infrastructure.	While effects in the short terms are likely to be a mix of slight adverse and slight beneficial, ultimately, if net biodiversity gain is achieved, then a more substantial beneficial effect can be anticipated.
Resilience to climate change, including flooding	While a range of aspects of the ETP will be neutral (for example increasing accessibility to the network), other aspects such as integration of the network may lead to cumulative adverse effects. Further development of the highway network is also likely to result in an increase in impermeable area and contribute to increased flood risk by increasing runoff. It is considered that overall the cumulative effect will be slight adverse (measures to incorporate SuDS will reduce effects), though there are also likely to be beneficial effects through increasing the self-sufficiency of local centres.	Overall mix of slight beneficial and slight adverse effect over the medium to long term as interventions are implemented.

Effects	Causes	Significance
Landscapes / townscapes	It is anticipated that interventions derived from the ETP will result in a mix of adverse and beneficial effects on landscapes and townscapes across the Plan Area. Beneficial effects could be derived from reduction in congestion, for example in town and village centres, as well as an emphasis on ETP Guiding Principals such as 'People Places' while adverse effects could be through the development of new infrastructure such as new highways and travel hubs. On the whole, the promotion of people and movement places could help provide opportunities to improve overall visual attractiveness of landscape / townscape through the re-use of previously developed land and potentially reduce the requirement for new infrastructure on greenfield sites.	Anticipated slight beneficial and adverse effects over the medium to long term as interventions are implemented.
Soil, agricultural resources and contaminated land	There will be a range of cumulative beneficial and adverse effects on soil, agricultural resources and contaminated land. For example, the development of the transport network provides an opportunity for positive effects relating to contaminated land (such as providing opportunities for remediation), but it may also provide an opportunity for further land to become contaminated and could potentially lead to the loss of soil / agricultural resources.	Anticipated slight beneficial and adverse effects over the medium to long term as interventions are implemented.
Economic growth	Making town centres more attractive via reducing congestion and enhancing public realm (such as set out in the ETP Guiding Principals) can help increase footfall and make these more attractive places to do business in. Economic benefits are also considered likely due to efficient network management and removal or alleviation of congestion hotspots etc. as this will make travel across the Plan Area and to surrounding areas more efficient, with more reliable timings. This will likely provide better and more efficient access to jobs (by allowing the same journey time to reach a greater distance). This can be facilitated by travel hubs, highway improvements and better connections and public transport services.	Anticipated major beneficial effects over the medium to long term as interventions are implemented.
Health and wellbeing and equalities.	On the whole, cumulatively, the ETP will act to promote health and well-being and equalities through providing greater access to services and employment opportunities, as well as greater opportunities for active travel. There is also an emphasis on low traffic neighbourhoods, reducing vehicle numbers and vehicle speeds. Improvements to air quality and a reduction in noise levels will also benefit health. Connections within and between communities will also be enhanced. This will be achieved by a range of mechanisms that will work together such as enhanced services, enhanced routes and reduced congestion.	Anticipated moderate beneficial effects over the medium to long term as interventions are implemented. Note though, that not all in society will benefit to the same extent and while recognition is made in ETP to help such groups / individuals, there remains an uncertainty of effect on elements of the population.
Promote greater transport connectivity and	*This will be updated when more rural aspects of the plan have been considered*	

Effects	Causes	Significance
accessibility for rural areas		

14.2.2 In combination cumulative effects with other plans and projects

The ISA has also considered other plans and projects that might lead to cumulative effects when combined with the ETP. Please also see Table 6-1 of the HRA Stage 1 and Stage 2 Report for assessment of in-combination effects in respect of European Sites.

Table 14-2 - Cumulative effects with other plans

Plan	Overview	Potential for cumulative effects with the Plan
Regional Development Strategy 2035	This Strategy 'Building a Better Future' provides a strategic long-term vision for the future development of Northern Ireland up to 2035. The eight aims are: 1. Support strong, sustainable growth for the benefit of all parts of Northern Ireland; 2. Strengthen Belfast as the regional economic driver and Derry/Londonderry as the principal city of the North West; 3. Support our towns, villages and rural communities to maximise their potential; 4. Promote development which improves the health and wellbeing of communities; 5. Improve connectivity to enhance the movement of people, goods, energy and information between places; 6. Protect and enhance the environment for its own sake; 7. Take actions to reduce our carbon footprint and facilitate adaption to climate change; and 8. Strengthen links between north and south, east and west, with Europe and rest of the world.	The ETP sets out objectives and interventions that will interact the aims of the Strategy. It is anticipated that cumulative effects will be a mix of beneficial and adverse depending upon the type / precise situation. For example, as a whole the ETP is anticipated to benefit the economy (Strategy Aim - Strengthen Belfast as the regional economic driver and Londonderry as the principal city of the North West), but as it will require new infrastructure there is a potential to adversely effect elements of the environment (Strategy Aim - Protect and enhance the environment for its own sake). It is to be noted that the ETP sets out an approach to further assessment that will address environmental effects.
Ensuring a Sustainable Transport Future: A New Approach to Regional Transportation	This plan compliments the Regional Development Strategy, containing high-level aims and strategic objectives to support the growth of the economy, enhance the quality of life for all and reduce the environmental impact of transport. It sets out the approach to regional transportation and is used to guide the strategic investment decisions up to 2035.	The ETP sets out objectives and interventions to support these that will interact with the aims of the Plan. It is anticipated that cumulative effects will be a mix of beneficial and adverse depending upon the type / precise situation. For example, as a whole the ETP is anticipated to benefit the economy (Plan Aim - Support the Growth of the Economy), but as it will require new infrastructure there is a potential to adversely effect elements of the environment (Plan Aim - Reduce the Environmental Impact of

Plan	Overview	Potential for cumulative effects with the Plan
		Transport). It is to be noted that the ETP sets out an approach to further assessment that will address environmental effects.
Regional Strategic Transport Plan (RSTP)	This plan is currently under development with the following strategic aims: ▪ Identify a vision and set of strategic objectives for the SRTN. ▪ Set out short, medium, and longer-term priorities for maintenance and capital improvements in the road, rail and inter-urban limited stop bus network, including park & ride, through to 2035. ▪ Identify a set of performance indicators and targets that can be used to measure progress against strategic objectives.	The ETP is expected support the RSTP, particularly in relation to strategic transport investment, connectivity, public transport and network resilience. Positive cumulative effects are anticipated for accessibility, economic growth, social inclusion and climate change mitigation. Potential adverse effects may arise from the construction of transport infrastructure, which could adversely affect elements of the environment. It is to be noted that the ETP sets out an approach to further assessment that will address environmental effects.
Draft Northern Ireland Climate Action Plan	The Draft Northern Ireland Climate Action Plan sets out the actions and policies required to meet NI's greenhouse gas emissions reduction targets established under the Climate Change Act (NI) 2022. The Plan identifies actions across a range of sectors including transport, energy, agriculture, industry and the built environment, with transport recognised as a key contributor to emissions. Measures include reducing reliance on private car use, increasing the use of sustainable transport modes, encouraging modal shift, supporting active travel and facilitating the transition to low-emission transport systems.	The ETP sets out objectives and interventions to support these that will interact with the aims of the Climate Action Plan through measures promoting modal shift, active travel and public transport. There is potential for positive cumulative effects in relation to climate change mitigation, air quality, health and sustainable transport. Potential adverse effects may arise from the construction of transport infrastructure, which could adversely affect elements of the environment. It is to be noted that the ETP sets out an approach to further assessment that will address environmental effects.
Antrim and Newtownabbey Local Development Plan (Draft Plan Strategy 2030, Local Policies Plan)	The aim of this document is to guide future development and land use in the area. It is intended to: ▪ Provide a plan framework that will support the economic and social needs of the borough up to 2030, taking into account regional strategies and policies, whilst providing for the delivery of sustainable development; ▪ Facilitate sustainable growth by co-ordinating public and private investments that will encourage development where is can be of most benefit to the wellbeing of the community; ▪ Allocate sufficient land to meet the needs of the Borough; ▪ Provide a plan-led framework for rational and consistent decision making;	The ETP sets out objectives and interventions to support these that will interact with the aims of the Plan. It is anticipated that cumulative effects will be a mix of beneficial and adverse depending upon the type / precise situation. For example, as a whole the ETP is anticipated to benefit the economy (Plan Strategic Policy – A place of economic opportunity), but as it will require new infrastructure there is a potential to adversely affect elements of the environment (Plan Objective – Promote biodiversity and conserve natural assets of our countryside, coast and loughs). It is to be noted that the ETP sets out an approach to further assessment that will address environmental effects.

Plan	Overview	Potential for cumulative effects with the Plan
	▪ Help deliver the spatial aspects of the Community Plan; and ▪ Provide an opportunity for all stakeholders and in particular residents to have a say about where and how development within the Borough should take place. There are a number of Strategic Policies, including 'Strategic Policy 3 Transportation and Infrastructure' which recognises that reliance on private car use must be reduced and support provided to those solely relying on public transport for mobility. The Council are committed to improving the accessibility and connectivity of transport, with a key aim of integrating transportation and land use.	
Antrim and Newtownabbey Local Development Plan, (Local Policies Plan)	The LPP which is under development, will set out development zonings and associated key site requirements and other site specific proposals and local policy designations required to deliver the Plan Vision, Strategic Objectives and Spatial Growth Strategy in the Plan Strategy as well as defining the limits for all our settlements.	The ETP may support the LPP through coordinated land use and transport planning. Positive cumulative effects are anticipated for accessibility, sustainable travel and economic growth. Potential adverse effects may arise from development on environmental receptors. It is to be noted that the ETP sets out an approach to further assessment that will address environmental effects.
Belfast Local Development Plan Plan Strategy 2035 (adopted May 2023)	This plan aims to guide future investment and development decisions to enable the sustainable spatial growth of the city up to 2035.The plan strategy specifically sets the strategic policy framework for the plan area as a whole across a range of topics. It sets out an ambitious but realistic vision for Belfast as well as the objectives and strategic policies required to deliver that vision. The overall LDP will: ▪ Provide a 15-year plan framework to support economic and social needs in the city, in line with regional strategies and policies, while providing the delivery of sustainable development; ▪ Facilitate growth by coordinating public and private investment to encourage development where it can be of most benefit to the wellbeing of the community; ▪ Allocate sufficient land to meet the needs of the city; and ▪ Provide more certainty for where development in Belfast should take place.	The ETP sets out objectives and interventions to support these that will interact with the aims of the Plan. It is anticipated that cumulative effects will be a mix of beneficial and adverse depending upon the type / precise situation. For example, as a whole the ETP is anticipated to benefit the economy (Plan Aim – Creating a vibrant economy), but as it will require new infrastructure there is a potential to adversely affect elements of the environment (Plan Objective – To protect enhance and link the natural environment and biodiversity by managing the location and design of new development). It is to be noted that the ETP sets out an approach to further assessment that will address environmental effects.

Plan	Overview	Potential for cumulative effects with the Plan
	There are a number of key themes for strategic policies within the plan, including 'building a smart connected and resilient place' which transportation falls under. The LDP aims to: ▪ Deliver sustainable patterns of development which reduce the need for motorised transport and prioritise active travel and travel by public transport in preference to the private car; ▪ Protect routes and land required for enhancing the existing transport network and delivering future transport schemes; and ▪ Facilitate active travel and a modal change to more sustainable modes of travel throughout the city.	
Belfast Local Policies Plan	The Local Policies Plan is currently being developed for adoption in September 2027, and will detail land use proposals regarding future development in Belfast in line with the Local Development Plan, Plan Strategy. This may include boundaries for specific areas of the city, such as the city centre, or through the specific designation of land for certain uses, such as housing or employment.	The Belfast LPP and ETP are expected to work together to support sustainable growth, regeneration and improved transport connectivity. Positive cumulative effects are anticipated for accessibility, sustainable travel and economic development, with potential adverse effects relating to local environmental impacts from new development and infrastructure. It is to be noted that the ETP sets out an approach to further assessment that will address environmental effects.
The Belfast Agenda	The first Community Plan – the Belfast Agenda – was created by a partnership of key city partners, residents and community organisations. The plan sets out the joint vision and long-term ambitions for Belfast's future, as well as outlining priorities for action over the next four years. To deliver the vision for 2035, five strategic outcomes have been set: ▪ Everyone in Belfast benefits from a thriving and prosperous economy; ▪ Belfast is a welcoming, safe, fair and inclusive city for all; ▪ Everyone in Belfast fulfils their potential; ▪ Everyone in Belfast experiences good health and wellbeing; and ▪ Belfast is a vibrant, attractive, connected and environmentally sustainable city. To help improve the associated outcomes, the following ambitions have been set to be achieved by 2035:	The Belfast Agenda and ETP share common objectives relating to economic growth, health, inclusion and connectivity. Positive cumulative effects are anticipated through improved transport accessibility, active travel opportunities and public transport provision, with potential adverse effects relating to local environmental impacts from new development and infrastructure. It is to be noted that the ETP sets out an approach to further assessment that will address environmental effects.

Plan	Overview	Potential for cumulative effects with the Plan
	▪ Our economy supports 46,000 additional jobs; ▪ Our city is home to an additional 66,000 people; ▪ There will be a 33% reduction in the life expectancy gap between the most and least deprived neighbourhoods; and ▪ Every young person leaving school has a destination that fulfils their potential.	
The Belfast City Centre Regeneration and Investment Strategy	The Belfast City Centre Regeneration and Investment Strategy outlines aims to grow and regenerate the city core and its surrounding areas to 2030. It recognises that a thriving city centre is vital to the prosperity of the whole city and the region as around two-thirds of all jobs in Belfast are located in and around the city centre. Eight policies for the city centre provide a vision for the eight areas of intervention considered most essential to Belfast's success. The policies address the universal elements of a thriving city centre as well as challenges and conditions that are unique to Belfast. The eight policies include: ▪ Increasing the employment population; ▪ Increasing the residential population; ▪ Managing the retail offer; ▪ Maximising the tourism opportunity; ▪ Creating a regional learning and innovation centre; ▪ Creating a green, walkable, cyclable centre; ▪ Connect to the city around; and ▪ Shared space and social impact.	The Strategy and ETP share aims to promote accessibility and sustainable movement within Belfast City Centre. Positive cumulative effects are anticipated for economic growth, public realm, active travel and public transport, with potential adverse effects relating to local environmental impacts from new development and infrastructure. It is to be noted that the ETP sets out an approach to further assessment that will address environmental effects.
Ards and North Down Local Development Plan Preferred Option Paper (March 2019)	The Local Development Plan (LDP) will apply regional policies at the local level and inform the general public, statutory authorities, developers and other interested bodies of the policy framework and land use proposals that will guide development decisions within our Borough up to 2030. ▪ The purpose of our Local Development Plan is to: ▪ provide a 15-year plan framework to support the economic and social needs of the Borough, in line with regional strategies and policies, while providing for the delivery of sustainable development;	Positive cumulative effects are anticipated through improved integration of transport and land use planning, supporting sustainable growth and accessibility. Potential environmental impacts associated with development and infrastructure may result in adverse effects. It is to be noted that the ETP sets out an approach to further assessment that will address environmental effects.

Plan	Overview	Potential for cumulative effects with the Plan
	▪ facilitate sustainable growth by co-ordinating public and private investment to encourage development where it can be of most benefit to the wellbeing of the community; ▪ allocate sufficient land to meet society's needs; ▪ provide an opportunity for all stakeholders, including the public, to have a say about where and how development within their local area should take place; ▪ provide a plan-led framework for rational and consistent decision-making for the public, private and community sectors, and those affected by development proposals; and ▪ deliver the spatial aspects of The Big Plan – the Council's Community Plan. Until the Ards and North Down Local Development Plan is published (Plan Strategy expected in Autumn 2027) planning decisions will continue to be made in the context of the existing development plans and planning policies (Ards and Down Area Plan 2015).	
Ards and Down Area Plan 2015	The aim of the plan is to provide a planning framework which is in broad conformity with the Regional Development Strategy in facilitating sustainable growth and a high quality of development in Ards Borough and Down District throughout the Plan period, whilst protecting and where appropriate, enhancing the natural and man-made environment of the Plan area. There are a number of plan objectives, including: ▪ To facilitate sustainable growth and development throughout the Plan area in accordance with the sustainability related strategic objectives of the Regional Development Plan; ▪ To promote Newtownards and Downpatrick as main towns within Northern Ireland and to strengthen their role as the principal administrative, trade, employment and residential centres within the Plan area; ▪ To allocate land for additional housing development over the Plan period in accordance with the strategic objectives and guidelines contained in the Regional Development Strategy relating to	The objectives of the Area Plan broadly align with those of the ETP, particularly in relation to sustainable development and transport integration. Positive cumulative effects are anticipated for accessibility, sustainable transport and economic development, with potential adverse effects relating to local environmental impacts from new development and infrastructure. It is to be noted that the ETP sets out an approach to further assessment that will address environmental effects.

Plan	Overview	Potential for cumulative effects with the Plan
	managing future housing growth, the distribution of housing and the drive for greater housing provision within existing urban areas; ▪ To facilitate appropriate development within existing urban areas that will promote urban renaissance, create ease of access to services and community facilities, and to maximise the use of existing infrastructure; ▪ To promote compact urban forms that respect the individual character and identity of settlements, avoid urban sprawl and conserve the countryside; ▪ To facilitate economic development and the creation of employment, taking into account the Government Strategy on Anti-Poverty and Social Exclusion in Northern Ireland; ▪ To facilitate integration between land-use planning and transportation in order to reduce congestion and the need for car journeys and to encourage a shift to more sustainable modes of transport, in particular walking and cycling; ▪ To promote vital and viable town centres; ▪ To protect and enhance the character, quality and biodiversity of natural and man-made environments; and ▪ To facilitate the promotion of equality of opportunity and good relations between persons of different religious belief, political opinion and racial group.	
Lisburn and Castlereagh Local Development Plan 2032 Plan Strategy (September 2023)	The Plan Strategy provides the strategic policy framework across a range of areas such as housing, employment, tourism and infrastructure. It's vision is to respond to the needs of the community in providing a sustainable economy, society and environment. It will support a thriving, vibrant and connected place in which people live, work, visit and invest; and an attractive, green and place of quality, which will enhance the wellbeing and quality of life for all. ▪ The six objectives of the LDP are: 1. Quality Place 2. A Thriving Place 3. A Vibrant Place 4. An Attractive Place	The ETP sets out objectives and interventions to support those that will interact with the aims of the Plan. It is anticipated that cumulative effects will be a mix of beneficial and adverse depending upon the type / precise situation. For example, as a whole the ETP is anticipated to benefit the economy (Plan Objective – Support a thriving and diverse economy with a sufficient supply of land and in locations for a range of employment uses facilitating the creation of new jobs and to encourage existing and new businesses to invest with confidence), but as it will require new infrastructure there is a potential to adversely effect elements of the environment (Plan Objective – Protect our historic and natural environment recognising their contribution to sustainable communities,

Plan	Overview	Potential for cumulative effects with the Plan
	5. A Green Place 6. A Connected Place ▪ Under the sixth objective, supporting sustainable transport and other infrastructure is a key theme with 10 aims to achieve this.	economic growth, sustainable transport and health and well-being). It is to be noted that the ETP sets out an approach to further assessment that will address environmental effects.
Lisburn and Castlereagh Local Development Plan 2032 Local Policies Plan	This is the final document making up the Local Development plan, and is expected to be complete by Autumn/Winter of 2028. Its purpose is to set out local policies and site specific proposals in relation to the development and use of land in its district.	Positive cumulative effects are anticipated through coordinated delivery of land use and transport infrastructure, supporting sustainable growth, accessibility and economic development. Potential adverse effects may arise in relation to local environmental impacts from new development and infrastructure. It is to be noted that the ETP sets out an approach to further assessment that will address environmental effects.
Castlereagh Urban Integrated Development Framework, 2014	The Castlereagh Urban Integrated Development Framework is a joint project undertaken on behalf of Castlereagh Borough Council and the Department for Social Development. The project focuses on the three main urban centres within the borough of Castlereagh - Carryduff, Forestside and Dundonald. It sets out a long term, high level, inspiring vision up to the year 2022. The framework focuses on opportunities for the areas, including transportation improvements, new transportation interventions and access improvements.	The Framework supports improvements to accessibility, connectivity and regeneration which align with ETP objectives. Positive cumulative effects are anticipated for accessibility, town centre vitality and sustainable transport provision. Potential adverse effects may arise in relation to local environmental impacts from new development and infrastructure. It is to be noted that the ETP sets out an approach to further assessment that will address environmental effects.
Mid and East Antrim Local Development Plan 2030 Plan Strategy (adopted October 2023)	The LDP aims to provide sufficient land to meet anticipated needs for housing, employment and services; all supported by adequate infrastructure, over the Plan period. It will also seek to ensure that all new development is of high quality and located in suitable places, which themselves should be enhanced by development. It has a range of economic, social and environmental strategic objectives. These include protecting strategically important transportation assets, including disused transport routes, and, where possible, facilitating enhanced connectivity within Mid and East Antrim and between the borough and other centres. The objectives also seek to promote active travel by increasing opportunities for walking and cycling, while protecting existing active travel routes and networks. In addition, they aim to focus significant new development in accessible	The ETP sets out objectives and interventions to support these that will interact with the aims of the Plan. It is anticipated that cumulative effects will be a mix of beneficial and adverse depending upon the type / precise situation. For example, the ETP as a whole is anticipated to deliver economic benefits by supporting the Plan Objective to provide a generous supply and choice of sites for business and employment uses, thereby promoting sustainable economic growth in Mid and East Antrim and meeting the locational needs of particular sectors, including new and emerging industries. However, implementation of the ETP may require new infrastructure, which has the potential to adversely affect elements of the environment. Consequently, there may be tensions with the Plan Objective to protect, conserve

Plan	Overview	Potential for cumulative effects with the Plan
	locations, particularly those served by public transport, and to promote integration between transport infrastructure and new development. This is intended to reduce the need to travel and lessen dependency on private car use. .	and, where possible, enhance environmental quality, biodiversity, and the natural processes that underpin the delivery of ecosystem services in Mid and East Antrim. It is to be noted that the ETP sets out an approach to further assessment that will address environmental effects.
Active Travel Network Delivery Plan	This plan aims to set out a well-planned and joined up network f routes that will promote and facilitate an increase in walking, cycling and wheeling. This includes high level plans for Urban networks, inter-urban routes and corridors, and links to existing and proposed Greenways and National Cycle Network. The plan applies to rural and urban areas across Northern Ireland.	The ETP sets out objectives and interventions to support these that will interact with the aims of the Plan. Positive cumulative effects are anticipated through increased walking, wheeling and cycling, improved health outcomes, reduced emissions and enhanced connectivity. Potential adverse effects may arise in relation to local environmental impacts from new development and infrastructure. It is to be noted that the ETP sets out an approach to further assessment that will address environmental effects.
Draft Marine Plan for Northern Ireland (2018)	While not formally adopted[72], the Marine Plane will inform and guides the regulation, management, use and protection of the Northern Ireland marine area. The draft Plan is divided in two parts, one for the inshore region and one for the offshore region and it is intended that Public Authorities taking decisions which affect or might affect the marine area utilise the Marine Plan to ensure sustainable development and management of the marine area.	The draft Marine Plan is accompanied by a Sustainability Appraisal[73] which includes assessment of Marine Plan Policy and consideration of cumulative effects. The Marine Plan SA reports negligible effects against 'land and sea interactions', 'ports, harbours and shipping' across the full range of SEA topics. Indeed the Marine Plan SA reports only Negligible or No effects across the SA suite of objectives. Therefore the potential for cumulative effects to arise with the ETP is reduced. The Marine Plan SA goes on to note in Section 5.5 that the Marine Plan supports, complements or otherwise takes into account a wide range of existing plans, policies and strategies and that the Marine Plan will therefore not result in any cumulative effects.

[72] https://www.daera-ni.gov.uk/articles/marine-plan-northern-ireland#toc-2

[73] https://www.daera-ni.gov.uk/sites/default/files/publications/daera/Volume%202%20of%20SA%20Report%20March%202018%20%281%29.PDF

15. Monitoring

Monitoring helps to examine the effects predicted through the SEA process against the actual effects of the options outlined in the ETP when they are implemented and allows for immediate actions to be taken should issues arise. It is also a requirement of the SEA Regulations (The Environmental Assessment of Plans and Programmes Regulations 2004) to describe the measures envisaged concerning how significant effects of implementing the ETP will be monitored. Section 17 (1) notes "*the responsible authority shall monitor the significant environmental effects of the implementation of each plan or programme with the purpose of identifying unforeseen adverse effects at an early stage and being able to undertake appropriate remedial action*". As ODPM Guidance advises, it is not necessary to monitor everything, or monitor an effect indefinitely, but rather monitoring needs to be focused on significant environmental effects.

Monitoring should therefore focus upon significant effects (adverse or beneficial) that are likely to breach international, national or local legislation, recognised guidelines or standards or that may give rise to irreversible damage, with a view to identifying trends before such damage is caused, and significant effects where there was uncertainty in the assessment and where monitoring would enable preventative or mitigation measures to be undertaken.

Monitoring can be integral to compiling baseline information for future plans and programmes (or in this instance to future iterations of the ETP or to help inform decision making in terms of the ETP Delivery Plan), as well as to preparing information which will be needed for further assessment such as EIA's, HRA's, HIA's, EqIA's etc. of projects. Monitoring and evaluation of progress towards objectives and targets can form a crucial part of the feedback mechanism. Feedback from the monitoring process helps to provide more relevant information that can be used to pinpoint specific performance issues and significant effects, and ultimately lead to more informed decision-making.

The following table then outlines potential monitoring indicators linked to each ISA objective. It is anticipated that significant adverse effects can be addressed for the most part through best practice construction techniques and close adherence to environmental protection measures. Nevertheless, it would be beneficial to monitor certain aspects commencing at the initial scheme design phase (i.e. prior to any EIA being undertaken) and informed by the design process.

Note that any further assessment process such as EIA may also identify further monitoring that may be important to undertake at an appropriate time.

It is to be further noted that monitoring does not necessarily need to be undertaken by the responsible authority, rather information used in monitoring can be provided by other bodies. Indeed, due to typical budgetary or resource issues, it is often considered that the most effective monitoring programme utilises information that is already being collected, either by the responsible authority itself or by other bodies with whom information can be shared, rather than proposing the collection of new datasets.

The monitoring of ETP performance will focus on the achievement of the Plan objectives. A series of Key Performance Indictors (KPIs) have been defined which align with the intended outputs of each objective. These include some measures relating to aspects including air quality, carbon emissions and health. Specific measures have been identified for monitoring, with targets defined and an outline approach set out for their monitoring. It is anticipated that the requisite datasets will be gathered at appropriate intervals with the designated KPIs monitored and reported annually.

15.1 Proposed monitoring programme

At this stage, as the ETP is a high-level strategic document and will need to be monitored throughout. Upon completion of the document, a full list of measurement indicators will be set out. This will also include connections to the ISA objectives, direction of change, partner organisations, datasets to be utilised and the frequency of monitoring. This will not be an exhaustive list, but will focus on those areas where significant adverse effects are anticipated.

This section will be updated upon completion of the ETP document.

16. Summary and Conclusions

The ISA process has been undertaken in parallel to the development of the ETP and set out to try and understand the sustainability key issues and opportunities related to transport planning in the east of Northern Ireland and ensure that this understanding was reflected in the ETP. A key element of this process was the identification of a series of Objectives against which the ETP would be tested during its development.

This resulted in an iterative approach that has been thorough and comprehensive and continuous dialogue took place between the ISA team and the Plan development team. It is considered that this has resulted in an enhanced incorporation of sustainability considerations as the draft ETP evolved up to and including the current draft consultation version, particularly in terms of providing clarity of approaches and commitment to undertaking further environmental, health and equalities assessment as the need arises.

This section will be further expanded upon as the remaining Council areas are considered.

Appendix A. ISA Scoping Consultation Responses

Table 1-1 - ISA Scoping Consultation Responses

Consultation Body	Response	How addressed in ISA
DAERA - NIEA	DAERA notes from appendix A of the ISA Scoping Report that plans involving transport have been included within the assessment of policies and that the Belfast Cycling Network (2021) has been listed. It has been stated that the ISA framework should consider including objectives relating to the provision of active travel throughout the area. DAERA welcomes this inclusion and suggests that proposed active travel routes could serve to facilitate both the Belfast Cycling network and the Eastern Transport Plan. Similarly, should the responsible authority become aware of other similar transport plans in the surrounding council areas that these be included within the Eastern Transport Plan.	Noted
	We note from page 13 of the scoping report that '*The HRA of the ETP is being undertaken separately from the ISA and the key output will be the HRA Screening Report'*. So far DAERA has not received a Habitats Regulation Assessment (HRA) screening document, we look forward to commenting on this when it is submitted. Please note following the decision of the United Kingdom to leave the European Union, the collective term of "Natura 2000" sites the network of European protected sites are now known as "National Site Network" sites within the United Kingdom, which includes Northern Ireland	The HRA Stage 1 Screening, and Stage 2 Appropriate Assessment will be published alongside the Draft plan (as a standalone document) and will be issued to DAERA as part of the consultation process.
DAERA – Natural Environment Division	NED welcomes the inclusion of the biodiversity objectives in the ISA, as noted in Table 6-1. We would suggest that the terms 'valuable ecological networks' and 'ecosystem resilience' are defined and expanded upon within the ER to provide clarity. We particularly welcome the inclusion of Biodiversity Net Gain within the objectives and the creation and enhancement of new habitat associated with developments. NED would remind the responsible authority that any new habitat created should use native species of planting in any such scheme.	Clarity on definitions of 'valuable ecological networks' and 'ecosystem resilience' added to Table 6-1 of the ISA Report.
	Within the column 'Implications / Opportunities for the ETP' we note that '*enhancement of the green infrastructure through, for example, footpaths, cycle lanes and other public rights of ways*' has been included. NED would like this statement clarified in the ER as it is unclear if this refers to enhancement of existing green infrastructure along pathways or incorporation of green infrastructure within new developments, or both.	Text clarified within Implications and Opportunities table of the ISA report.
	NED notes that the responsible authority are preparing a HRA screening document and we look forward to commenting on this at a future date	The HRA Stage 1 Screening, and Stage 2 Appropriate Assessment (if required) will be published alongside the Draft plan (as a standalone document) and will be issued to DAERA as part of the consultation process.
	The following plans and policies have been provided and have been recommended for inclusion: ▪ The Wildlife (NI) Order 1985 (as amended) ▪ Wildlife and Natural Environment Act (NI) 2011	The additional plans and policies provided have been considered as part of the review of Plans and Policies (appendix B) and have

Consultation Body	Response	How addressed in ISA
	▪ The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended) ▪ The Environment (NI) Order 2002 ▪ The Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 2017 ▪ The Strategic Planning Policy Statement (SPPS) for Northern Ireland ▪ Planning Policy Statements (PPS – in particular PPS2). It should be noted that the PPS's will be superseded by Local Development Plans when they are adopted ▪ Biodiversity Strategy for NI to 2020 https://www.daerani.gov.uk/publications/biodiversity-strategy-northern-ireland-2020-0 ▪ Draft Environment Strategy https://www.daera-ni.gov.uk/consultations/esnipublic-discussion-document ▪ The Draft NI peatland policy: https://www.daera-ni.gov.uk/consultations/nipeatland-strategy-consultation ▪ The Draft Green Growth Strategy Consultation on the draft Green Growth Strategy for Northern Ireland | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)Northern Ireland Energy Strategy 2050 Northern Ireland Energy Strategy 2050 | Department for the Economy (economy-ni.gov.uk)	been used to update the ISA Framework, where required.
	Information sources to define the current state of the environment were provided as follows: 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 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 Protected sites and priority habitats: www.daera-ni.gov.uk/services/natural-environment-map-viewer Natural environment datasets: www.daera-ni.gov.uk/articles/download-digital-datasets	The sources of information provided have been used to update the baseline information contained in Appendix B, Appendix C and Table 6-1 of the main ISA Report 'Key Issues, Implications and Opportunities for the ETP'. The ISA Framework has been updated to reflect, where required.
	Appropriate Assessments should refer to the status of habitats and species in the relevant reports available on the JNCC website as follows: UK Article 17 report for the Habitats Directive https://jncc.gov.uk/our-work/article-17-habitats-directive-report-2019/ and the UK Article 12 report for the Birds Directive https://jncc.gov.uk/ourwork/european-reporting/#birds-directive-reporting	The HRA, prepared as a standalone Report, provides details on the status of the habitats and species as set out in the provided reports.
	The Integrated Sustainability Appraisal (ISA) (incorporating the SEA) should consider all issues in relation to the aquatic environment during all aspects / phases in relation to the implementation of Eastern Transport Plan	The assessments, provided in Appendix E, clearly set out the

Consultation Body	Response	How addressed in ISA
DAERA – Water Management Unit	(ETP). Impacts that should be considered include, (but may not limited to), those relating to water quality, water quantity, hydromorphology. Assessment should consider all potential impacts both direct and indirect. After consideration, the ISA should clearly state whether, or not, any potential impacts to the aquatic environment have been identified and the nature of those impacts.	potential impacts of schemes on the water environment. This includes direct and indirect effects and the significance of effect, pre and post mitigation.
	Plans, programmes and legislation recommended to be considered: ▪ River basin Management Plans: https://www.daerani.gov.uk/consultations/consultation-draft-3rd-cycle-river-basin-management-plan-2021- 2027 ▪ Irish River Basin Management Plans (for consideration of transboundary impacts where required) ▪ Water | NetRegs | Environmental guidance for your business in Northern Ireland & Scotland	The additional plans and policies provided have been considered as part of the review of Plans and Policies (appendix B) and have been used to update the ISA Framework, where required.
	Baseline sources were provided as follows: ▪ Northern Ireland Environmental Statistics Reports: https://www.daerani.gov.uk/articles/northern-ireland-environmental-statistics-report ▪ Significant Water Management Issues to inform the development of the third cycle River Basin Management Plan (2021-2027) consultation document: Planning for the third cycle River Basin Management Plan 2021-2027 - Consultation on Significant Water Management Issues December 2019 | Department of Agriculture, Environment and Rural Affairs ▪ Water Information Request Web Viewer and NIEA Catchment Data Map Viewer DAERA Map Viewers | Department of Agriculture, Environment and Rural Affairs	The sources of information provided have been used to update the baseline information contained in Appendix B, Appendix C and Table 6-1 of the main ISA Report 'Key Issues, Implications and Opportunities for the ETP'. The ISA Framework has been updated to reflect, where required.
	Mitigation Where adverse impacts on the aquatic environment are identified during the ISA process, and the nature of those potential impacts clearly identified, relevant and appropriate mitigation measures should be proposed. Mitigation measures must be proportionate to those risks identified	Proportionate mitigation has been set out for identified adverse effects within the assessment tables, provided within Appendix E
	Monitoring Monitoring regimes should be identified (including where feasible, consideration of the monitoring body, frequency of monitoring, appropriate analysis, and reporting) to ensure both the efficacy of those mitigation measures and identify any unforeseen impacts to the aquatic environment that may arise from implementation of the ETP. Monitoring should be subject to review at each reporting stage to reflect new data. The ISA should contain a commitment to actions should the monitoring regime identify adverse impacts during plan implementation despite the mitigation measures proposed	Monitoring regimes for the identified significant effects, both adverse and beneficial, have been set out within Chapter 13 of the main ISA Report.

Consultation Body	Response	How addressed in ISA
DAERA – Air Quality and Biodiversity Unit	AQBU welcomes the objectives to support biodiversity and improve air quality	Noted
	Further information about the link between air quality and biodiversity loss can be found on the Air Pollution Information System (APIS) Air Pollution Information System | Air Pollution Information System This tool provides information on the impacts of air pollutants, such as NOx, ammonia emissions and the associated Nitrogen deposition on sensitive habitats and species. The map feature within APIS enables detailed information to be provided on the Critical Levels/Loads for each qualifying feature and background levels of these pollutants: APIS app | Air Pollution Information System APIS now includes air quality information for Ireland's protected sites which can be used in an assessment on any transboundary effects from the Plan	Additional information added to Appendix C.2
	Aerial emissions from traffic/industrial/energy processes (NOx) and livestock developments (ammonia) contribute to nitrogen deposition on sensitive habitats. Consideration should be given to construction and traffic related activities associated with the delivery of projects within the Plan and if they might trigger a significant air quality effect on nearby sensitive habitats or species. Activities within 200m of sensitive habitats to air pollution should be assessed for potential effects from NOx and dust.	Effects of traffic related impacts, including nitrogen deposition, on sensitive habitats will be considered within the biodiversity ISA objective as provided within the assessment tables (Appendix E). The ISA considers both construction and operational impacts. Assessments are appropriate to the level of detail available about the scheme.
DAERA – Marine Planning Team	Chapter 2 - Geographical and Temporal Scope Paragraph 2.3 recognises the potential for affects outside the immediate boundary of the ETP area. It is recommended the potential implications on the Northern Ireland marine area including its uses, activities and marine environment should also be a focus for the ISA, not just bordering council areas.	Chapter 3.1 of the main ISA report updated to reference consideration of impacts on the adjacent marine environment within the geographical scope of the assessment. Consideration of impacts on the marine area and its uses/activities undertaken within the assessments, provided within Appendix E. NI Marine Plan included within the in-combination cumulative effects with other plans and policies assessment (chapter 12.2.2).
	Chapter 4 - Relevant Plans, Programmes and Environmental Protection Objectives MPT welcome the inclusion of the Marine and Coastal Access Act 2009 in Appendix A. It is recommended consideration is given to the	The additional plans and policies provided have been considered

Consultation Body	Response	How addressed in ISA
	relationship of the ETP with other marine policy and legislation, including the following and their environmental objectives: ▪ UK Marine Policy Statement 2011; ▪ Marine Act (Northern Ireland) 2013; ▪ Draft Marine Plan for Northern Ireland 2018; ▪ Integrated Coastal Zone Management Strategy for Northern Ireland 2006-2026; and ▪ UK Marine Strategy Regulations (2010)	as part of the review of Plans and Policies (appendix B) and have been used to update the ISA Framework, where required.
	In relation to the Adaption to Climate Change and Flooding theme outlined in section 4.1; it is recommended this should recognise coastal change and should align with the issues for consideration within the UK Marine Policy Statement (section 2.6.8.4 – 2.6.8.6) and the policy tests outlined in the Coastal Processes policy in the draft Marine Plan for Northern Ireland. Under the Water Resources theme it is recommended the following is added: ▪ help to meet objectives of the UK Marine Strategy and the UK Marine Strategy Regulations 2010; and ▪ protect and improve the quality of coastal and marine waters.	Noted – baseline provided on current status of coastal and marine water bodies and coastal processes. ISA Decision Aid Questions under ISA Objective 9 'Protect and enhance the water environment' updated in line with the recommendations
	Chapter 5 - Baseline Information It is recommended the section on Data Analysis (5.3) should include data on: ▪ Seascapes, not just landscape and townscape; and ▪ water quality should be extended to include data on coastal and transitional waters from both a WFD and UK Marine Strategy perspective and marine waters from a UK Marine Strategy perspective. ▪ Coastal Change / Coastal Processes	The sources of information provided have been used to update the baseline information contained in Appendix B, Appendix C and Table 6-1 of the main ISA Report 'Key Issues, Implications and Opportunities for the ETP'. The SEA Framework has been updated to reflect, where required.
	Appendix B should include and take into account the following within its Baseline and Contextual Information and be reflected in the explanatory text and anticipated future trends: ▪ For Coastal Change / Processes the outputs from the joint DAERA / DFI Ministerial Coastal Forum, including the Coastal Vulnerability Assessment; the Baseline Study and Gap Analysis of Coastal Risk Management for Northern Ireland, and the Northern Ireland Coastal Observatory. ▪ For Landscape, the Northern Ireland Regional Seascape Character Assessment 2014. Figure C.5 should include the relevant seascape character areas. ▪ For Water Quality and Resources, the UK Marine Strategy, which sets out the framework for the achievement of good environmental status in marine and coastal waters. This is particularly important in	The sources of information provided have been used to update the baseline information contained in Appendix B, Appendix C and Table 6-1 of the main ISA Report 'Key Issues, Implications and Opportunities for the ETP'. The SEA Framework has been updated to reflect, where required.

Consultation Body	Response	How addressed in ISA
	relation to those elements not covered by the Water Framework Directive Regulations, including issues such as the impacts on marine noise and litter and certain aspects of biodiversity. Both the Water Framework and Marine Strategy Regulations apply in coastal waters out to one nautical mile. Figure C.6 should include bathing waters and shellfish waters protected areas.	
	Chapter 6 - Key Sustainability Issues Further consideration of the above recommendations should be given in assessing the potential key issues, implications and opportunities, and ISA objective in Table 6-1	Table 6-1 of the main ISA Report 'Key Issues, Implications and Opportunities for the ETP' has been updated to reflect recommendations as necessary.
	Chapter 7 - SEA Framework The following recommendations have been provided for the SEA Framework: **Objective 3** – the assessment aid questions for Increase resilience of the transport network to the effects of a changing climate such as extreme weather events should include questions that consider coastal change / erosion and reflect policy tests in UK Marine Policy Statement, such as: Will the ETP … ▪ Lead to development that is resilient to risk of coastal change and not have an unacceptable impact on coastal change?; ▪ Result in inappropriate development in areas of highest vulnerability to coastal change?; and ▪ Result in development that is safe over its lifetime and not cause or exacerbate coastal erosion risk elsewhere? **Objective 8** – should include a reference to seascapes and be amended to: Protect and enhance the character and quality of landscapes, seascapes, townscapes and visual amenity. The assessment aid question should be amended to: Will the ETP … ▪ Conserve, protect and enhance natural environmental assets (e.g. seascapes, parks and greenspaces, woodland/forests etc)? ▪ Affect the intrinsic character or setting of seascapes or local landscapes or townscapes through changes in views or indirectly through changes in tranquillity, light pollution and traffic? **Objective 9** – the assessment aid questions for Protect and enhance the water environment should include: Will the ETP …. ▪ Protect coastal and transitional water quality in line with WFD and UK Marine Strategy requirements? ▪ Provide opportunity to improve / achieve good environmental status?	ISA Objective 3, 8 and 9 updated in line with recommendations
	Conclusion	The additional decision aid questions added to the ISA

Consultation Body	Response	How addressed in ISA
	The SEA Environmental Report would benefit from stating if there are any likely effects or no likely effects on the marine environment, its uses and activities including the marine biodiversity, historic, seascape, coastal processes and water environments. Taking account of the above advice will enable the subsequent Environmental Report to consider and assess likely effects on the marine area of Northern Ireland and its environment.	framework (objectives 3, 8 and 9) will support the assessment of potential effects on the marine area of NI and its environment
DAERA Marine Conservation Branch	We welcome the inclusion of The Marine and Coastal Access Act 2009, Wildlife (Northern Ireland) Order 1985, Strategic Planning Policy Statement for Northern Ireland 2015 and The Climate Change Act (Northern Ireland) 2022	Noted
	Advise consideration of the following plans, policies and legislation: ▪ The Marine Strategy Regulations 2010: *UK Marine Strategy Part 1 (Marine Strategy Part One: UK updated assessment and Good Environmental Status), UK Marine Strategy Part 2 (updated UK Marine Strategy Part Two) and Overview of UK Marine Strategy Part 3 (UK Marine Strategy Part Three: Programme of Measures - Defra - Citizen Space).* ▪ Marine Policy Statement 2011: *10164_Marine Statement_Cov.indd* ▪ The draft Marine Plan for Northern Ireland (consultation 2018) ▪ Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995: The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 ▪ Wildlife and Natural Environment Act (Northern Ireland) 2011: Wildlife and Natural Environment Act (Northern Ireland) 2011 • Marine Act (Northern Ireland) 2013: *Marine Act (Northern Ireland) 2013* • An Integrated Coastal Zone Management Strategy for Northern Ireland 2006-2026 • Northern Ireland Regional Seascape Character Assessment 2014: *Northern Ireland Regional Seascape Character Assessment | Department of Agriculture, Environment and Rural Affairs*	The additional plans and policies provided have been considered as part of the review of Plans and Policies (appendix B) and have been used to update the ISA Framework, where required.
	In Section 3.1- Environmental role, we advise ensuring that natural heritage includes marine and intertidal habitats and species. In addition, ensure pollution incorporates marine litter	Section 2.1 of the ISA Report sets out the three sustainable development themes of the Regional Development Strategy (RDS). The ISA of the ETP considers proximity to and potential impacts on all habitats, including marine and intertidal habitats and the effects of marine litter.

Consultation Body	Response	How addressed in ISA
	In Table 3-1 - ETP Preparation activities with the ISA and HRA process under D), we advise that for marine related aspects of the HRA consultation should be sought from DAERA M&FD	Noted – Table 4-1 of the ISA Report updated to reflect. Consultation on the marine related aspects of the HRA will be sought from the DAERA Marine and Fisheries Division.
	In Section 3.3, we welcome consideration of SPAs, SACs and Ramsar sites however, advise inclusion of the East Coast Marine pSPA	Noted, the HRA will consider potential LSE on the East Coast Marine pSPA.
	In Section 4.1- Environmental themes – Adaptation to changing climate and flooding, we advise also considering coastal erosion	Environmental themes, under Chapter 5.3 of the ISA Report, updated to include coastal erosion.
	In Section 4.1- Environmental themes – Adaptation to changing climate and flooding, regarding '*Prepare for extreme whether events and sea level rise'* we advise adding '*increased periods of storminess'*	Environmental themes, under Chapter 5.3 of the ISA Report, updated to include '*increased periods of storminess'*.
	In Section 4.1- Environmental themes – Adaptation to changing climate and flooding, regarding *'Avoid development in floodplains when possible'*, we advise adding *'Avoid development in areas known to be at risk of coastal erosion.'*	Environmental themes, under Chapter 5.3 of the ISA Report, updated to in line with recommendation.
	In Section 4.1- Environmental themes – BFF, we advise considering Northern Ireland Priority Species. In addition, we advise incorporating blue infrastructure and ensuring marine habitats and species are considered.	Environmental themes, under Chapter 5.3 of the ISA Report, updated to in line with recommendations.
	In Section 4.1- Environmental themes – Landscape and Townscape, we welcome the consideration of 'Seascape'	Noted
	In Table 6-1, BFF and Geodiversity, we advise the East Coast Marine pSPA needs to be considered. In addition, we advise incorporating blue infrastructure and ensuring marine habitats and species are considered. Furthermore, we welcome the consideration of Invasive non-native species	Table 6-1 of the ISA Report and assessments updated to consider the East Coast Marine pSPA, marine habitats and blue infrastructure.

Consultation Body	Response	How addressed in ISA
	In Table 6-1, Landscapes and Townscapes, we advise considering the following Regional Seascape Character Areas (RSCA): ▪ Belfast Harbour RSCA ▪ Belfast Lough RSCA ▪ Strangford Lough RSCA ▪ Ards Peninsula RSCA ▪ Larne Lough RSCA ▪ The Gobbins RSCA ▪ Southern Glens Coast RSCA	Table 6-1 of the ISA Report and assessments updated to consider impact on seven RSCAs.
	In Table 7-1 No.3, we advise also considering coastal erosion e.g. 'minimise the risk of coastal erosion by avoiding development within areas known to be at risk from coastal erosion.	Decision Aid Question added to ISA Objective 3 - Increase resilience of the transport network to the effects of a changing climate such as extreme weather events
	In Table 7-1 No.4, we advise considering Northern Ireland Priority Species, MCZs and ensuring marine habitats and species are incorporated.	ISA Objective 4 updated to reflect recommendations
	In Table 7-1 No.8, we advise including seascape	ISA Objective 8 updated to reflect recommendation
	In Appendix B, we advise for Northern Ireland the East Coast Marine pSPA and Carlingford Marine pSPA needs to be considered. With the East Coast Marine pSPA being specific to the ETP.	Noted – pSPAs included in baseline (Appendix C), associated Figures (Appendix D) and considered in both the ISA and HRA.
	In Appendix C - Section C.2 and C.5 we advise the East Coast Marine pSPA needs to be considered	Appendix C and D of the ISA Report updated to reflect
	In Table 3-1- ETP Preparation activities with the ISA and HRA process under A) '*Confirm identification of all international sites within and up to 20 km around the ETP area'* and in Section 3.3, we advise using the following marine mammal screening distances where development is in close proximity to the marine environment: ▪ all SACs within 100km of the project should be screened for Grey seals (Halichoerus grypus) ▪ all SACs within 50km should be screened for Harbour seals (*Phoca vitulina*)	Noted, the HRA Report has used the screening distances as recommended.

Consultation Body	Response	How addressed in ISA
	▪ all SACs within 100km should be screened for Harbour porpoise *(Phocoena phocoena)*	
	In Appendix B, we advise information on coastal geomorphology can be found on the Northern Ireland Coastal Viewer Maps | Northern Ireland Coastal Observatory	Baseline (Appendix B) updated to include information on NI's coastal geomorphology
	In Appendix B, we advise information on marine heritage can be viewed on the DEARA Marine map Viewer Northern Ireland Marine Map Viewer	Baseline (Appendix B) updated to include information on marine Heritage assets
Department for Communities (DfC) Historic Environment Division (HED)	4.1 Environmental Themes – Cultural Heritage HED advise that the first objective be reordered to better reflect the wording within SPPS in approach to heritage assets, i.e. "Protect, conserve and enhance heritage assets (designated and undesignated) and those of cultural note, including archaeology and historic landscapes." We suggest the term heritage assets would be more consistent with wider sectoral and policy terminology. We also suggest the third bullet might be amended to better reflect the potential for sustainable re-use of heritage assets. i.e. "Sympathetic design and re-use of heritage assets where appropriate……etc"	Cultural heritage themes (Chapter 5.3 of the ISA Report) updated to reflect recommendations
	Table 6-1 Key Issues, Implications and Opportunities for the ETP – Cultural Heritage Section (and associated sections in Appendices document) HED advise that there are some inconsistencies with figures in the associated Appendices document and some inaccuracy in interpretation of the evidence base. The figure for scheduled quoted here is actually the total number of assets recorded on the NISMR, - the correct figure is located in the appendices which also articulates a helpful breakdown of assets by council area. – Similarly HED flag that the map in the appendices document (page 150) shows the entirety of the SMR in the region rather than solely scheduled monuments as implied by the label. HED advise that some aspects of heritage have not been afforded consideration in the context of the appendices – including designations such as Areas of Significant Archaeological Interest (ASAI), Areas of Townscape and Village Character (ATC/AVC). It would also be appropriate given the specific relevance of industrial heritage sited to further explore or articulate this resource in the appendices document. It would also be appropriate to consider the heritage not in formal records including historic boundaries such as townland boundaries, or historic paths and routeways and the potential cultural and amenity value that these hold in relation to enhancing the transport plan. In relation to World Heritage HED highlight the current presence of Gracehill Moravian Settlement on the tentative list of sites as part of a transnational bid for World Heritage status. We advise that in key issues and implications the consideration of potential opportunities and impacts in relation to industrial heritage in particular would be of relevance, given that this includes features such as disused historic railways, routeways, and canals and towpaths. We would also suggest use of the word	Table 6-1 (cultural heritage section) of the ISA Report, ISA Objective No.7, Appendix C.5 and associated figure reviewed and updated to reflect recommendations

Consultation Body	Response	How addressed in ISA
	enhanced rather than improved in relation to setting. In terms of the ISA objective we again advise rewording to ensure consistency across the document and with existing regional policy in the Strategic Planning Policy Statement for Northern Ireland 2015 (SPPS), i.e. “Protect, conserve and enhance……..”	
	Table 7-1 ISA Objectives 7 HED again advise rewording to align with SPPS – “Protect, conserve and enhance “ We note and welcome the reference to Industrial Heritage and to Conservation Areas in the context of the Assessment Aid Questions but again advise that it would be appropriate to consider these types of asset in more depth both in the appendices and in Table 6-1. Given that many heritage assets have been forgotten, lost or are yet to be found it would be appropriate to consider an assessment question as to whether the ETP will help identify heritage assets toward better understanding and protecting them. Also whether the ETP will enable sympathetic and sustainable re-use of heritage assets. The reuse of associated historic buildings and structures, such as railway stations, signal houses, mills, vernacular buildings and stores also offer potential to provide ancillary services, e.g. shelters, bike stores, cafes etc breathing new life into redundant or At Risk structures. Within town centres, utilizing and conserving historic alleyways, towpaths, and historic materials e.g. cobbles, granite kerbstones, etc can enhance the character, appearance and experience of the district’s places toward achieving the plan objectives.	Recommended Decision Aid Questions added to ISA Objective No.7
	Appendix A – Assessment of Policies National Level – HED advise that it would be appropriate to consider the Historic Monuments and Archaeological Objects (NI) Order 1995 in relation to the ISA We further advise that the Planning Act (NI) 2011 also provides for the Listing of Buildings of Special Architectural & Historic Interest and for the designation of Conservation Areas	The additional plans and policies provided have been considered as part of the review of Plans and Policies (appendix B) and have been used to update the ISA Framework, where required.
	Appendix B Baseline and Contextual Information – Historic Environment Section HED refer here to our previous comments in relation to Table 6-1 of the Scoping Report. We advise that our Historic Environment Digital Datasets (Historic Environment Digital Datasets | Department for Communities) and Historic Environment Map Viewer (Historic Environment Map Viewer | Department for Communities) will be of relevance in understanding and addressing highlighted gaps or inaccuracies in misinterpretation of evidence. We suggest some amendment to explanatory text – e.g. “Scheduled monument status is afforded to archaeological sites deemed of national/regional importance in the Northern Ireland context. The identification, designation and monitoring of sites is undertaken by Historic Environment Division.” Footnotes relating to the criteria for designation (Ref p.85 p.88) should be updated to the following link: Criteria for the Scheduling of Historic Monuments and the Listing of Buildings of Special Architectural or Historic Interest, with associated procedures | Department for Communities (communities-ni.gov.uk)	Appendix C.5 of the ISA Report and associated Figure (D.4) updated to reflect additional datasets provided

Consultation Body	Response	How addressed in ISA
	Defence Heritage – reference to the Historic Buildings and Ancient Monuments Act 1983 is not relevant to this strategy. We advise a specific section in relation to Industrial Heritage in the context of this table would be appropriate and that ASAI, AVC and ATC all merit exploration here	Historic Buildings and Ancient Monuments Act 1983 removed from Appendix B of the ISA Report
	At scoping stage HED would also normally expect to see a more clear consideration of the relationship between SEA topics, and would highlight the inter-relationship with the historic environment topic across a range of topic areas including but not limited to, landscape, biodiversity and the natural environment, water-resources and so on	A cumulative assessment as per the SEA Regulations that considers ther inter-relationships between the SEA topics has been undertaken and is presented in Chapter 12 of the ISA report.
	As well as our evidence bases HED would encourage close reference to the following guidance: ▪ Conservation Principles guidance | Department for Communities ▪ heritage-guidance-on-sustainability-appraisal-and-strategic-environmental-assessment-for-the-historic-environment.pdf ▪ Guidance on Setting and the Historic Environment | Department for Communities	The additional guidance documents have been considered as part of the review of Plans and Policies (appendix B) of the ISA Report
	HED considers that the forthcoming environmental report should recognize the potential for transboundary implications in relation to the historic environment and landscape. Some assets such as railways, bridges and canals are transboundary in themselves while very many assets either side of the border will share common landscape character and interweaving views and settings	Noted

Appendix B. Assessment of Policies

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
INTERNATIONAL / EUROPEAN		
Convention on Biological Diversity 2010	Sets out a conservation plan to protect global biodiversity, and an international treaty to establish a fair and equitable system to enable nations to co-operate in accessing and sharing the benefits of genetic resources. The new global vision is “By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential to all people”.	Ensure protection of biodiversity objective within ISA framework.
Kumming-Montreal Global Biodiversity Framework 2023	The Kunming-Montreal Global Biodiversity Framework, building on the Strategic Plan for Biodiversity 2011–2020, its achievements, gaps, and lessons learned, and the experience and achievements of other relevant multilateral environmental agreements, sets out an ambitious plan to implement broad-based action to bring about a transformation in our societies’ relationship with biodiversity by 2030, in line with the 2030 Agenda for Sustainable Development and its Sustainable Development Goals, and ensure that, by 2050, the shared vision of living in harmony with nature is fulfilled. The vision of the Framework is a world of living in harmony with nature where “by 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.” The mission of the Framework for the period up to 2030, towards the 2050 vision is: To take urgent action to halt and reverse biodiversity loss to put nature on a path to recovery for the benefit of people and planet by conserving and sustainably using biodiversity and by ensuring the fair and equitable sharing of benefits from the use of genetic resources, while providing the necessary means of implementation. The Framework has four long-term goals for 2050 related to the 2050 Vision for biodiversity. GOAL A: The integrity, connectivity and resilience of all ecosystems are maintained, enhanced, or restored, substantially increasing the area of natural ecosystems by 2050; human induced extinction of known threatened species is halted, and, by 2050, the extinction rate and risk of all species are reduced tenfold and the abundance of native wild species is increased to healthy and resilient levels; and the genetic diversity within populations of wild and domesticated species, is maintained, safeguarding their adaptive potential. GOAL B: Biodiversity is sustainably used and managed and nature’s contributions to people, including ecosystem functions and services, are valued, maintained and enhanced, with those currently in decline being restored, supporting the achievement of sustainable development for the benefit of present and future generations by 2050. GOAL C: The monetary and non-monetary benefits from the utilization of genetic resources and digital sequence information on genetic resources, and of traditional knowledge associated with genetic resources, as applicable, are shared fairly and equitably, including, as appropriate with indigenous peoples and local communities, and substantially increased	Ensure the ISA framework takes into account the goals and targets set out in this framework.

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	by 2050, while ensuring traditional knowledge associated with genetic resources is appropriately protected, thereby contributing to the conservation and sustainable use of biodiversity, in accordance with internationally agreed access and benefit-sharing instruments. GOAL D: Adequate means of implementation, including financial resources, capacity-building, technical and scientific cooperation, and access to and transfer of technology to fully implement the Kunming-Montreal Global Biodiversity Framework are secured and equitably accessible to all Parties, especially developing country Parties, in particular the least developed countries and small island developing States, as well as countries with economies in transition, progressively closing the biodiversity finance gap of $700 billion per year, and aligning financial flows with the Kunming-Montreal Global Biodiversity Framework and the 2050 Vision for biodiversity. The Framework has 23 action-oriented global targets for urgent action over the decade to 2030. The actions set out in each target need to be initiated immediately and completed by 2030. Together, the results will enable achievement towards the outcome-oriented goals for 2050. Actions to reach these targets should be implemented consistently and in harmony with the Convention on Biological Diversity and its Protocols, and other relevant international obligations, taking into account national circumstances, priorities and socioeconomic conditions.	
Berne Convention	The principal aims of the Convention are to ensure conservation and protection of wild plant and animal species and their natural habitats (listed in Appendices I and II of the Convention), to increase cooperation between contracting parties, and to regulate the exploitation of those species (including migratory species) listed in Appendix 3. To this end the Convention imposes legal obligations on contracting parties, protecting over 500 wild plant species and more than 1000 wild animal species.	Ensure protection of biodiversity objective within ISA framework.
Ramsar Convention	The Convention covers all aspects of wetland conservation and wise use. The Convention has three main 'pillars' of activity: the designation of wetlands of international importance as Ramsar sites; the promotion of the wise-use of all wetlands in the territory of each country; and international co-operation with other countries to further the wise-use of wetlands and their resources	Ensure protection of biodiversity objective within ISA framework. HRA Screening will assess whether full Appropriate Assessment is necessary.
Bonn Convention	Contracting Parties work together to conserve migratory species and their habitats by providing strict protection for endangered migratory species (listed in Appendix 1 of the Convention), concluding multilateral Agreements for the conservation and management of migratory species which require or would benefit from international cooperation (listed in Appendix 2), and by undertaking cooperative research activities.	Ensure protection of biodiversity objective within ISA framework.
EU Biodiversity Strategy to 2020	2050 vision:	Ensure protection of biodiversity objective within ISA framework.

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	By 2050, European Union biodiversity and the ecosystem services it provides — its natural capital — are protected, valued and appropriately restored for biodiversity's intrinsic value and for their essential contribution to human wellbeing and economic prosperity, and so that catastrophic changes caused by the loss of biodiversity are avoided. 2020 headline target: Halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible, while stepping up the EU contribution to averting global biodiversity loss.	
Habitats Directive (92/43/EEC)	Aims to protect wild plants, animals and habitats. Directive created a network of protected areas called Natura 2000 sites, including Special Areas of Conservation (SACs) – supporting rare, endangered or vulnerable natural habitats, plants and animals (other than birds), and Special Protection Areas (SPAs) – supporting significant numbers of wild birds and their habitats.	Ensure protection of biodiversity objective within ISA framework. HRA Screening will assess whether full Appropriate Assessment is necessary.
Birds Directive (2009/147/EC)	Europe is home to more than 500 wild bird species. But at least 32 % of the EU's bird species are currently not in a good conservation status. The Birds Directive aims to protect all of the 500 wild bird species naturally occurring in the European Union. Habitat loss and degradation are the most serious threats to the conservation of wild birds. The Directive therefore places great emphasis on the protection of habitats for endangered and migratory species. It establishes a network of Special Protection Areas (SPAs) including all the most suitable territories for these species. Since 1994, all SPAs are included in the Natura 2000 ecological network, set up under the Habitats Directive 92/43/EEC.	Ensure protection of biodiversity objective within ISA framework. HRA Screening will assess whether full Appropriate Assessment is necessary.
Water Framework Directive (2000/60/EC)	Looks at the ecological health of surface water bodies as well as traditional chemical standards. In particular it will help deal with, amongst others diffuse pollution, habitat, ecology, hydromorphology, barriers to fish movement, water quality, flow and sediment. Successful implementation will help to protect all elements of the water cycle and enhance the quality of our groundwater, rivers, lakes, estuaries and seas.	Ensure protection of surface water quality forms part of ISA framework.
Groundwater Directive (2006/118/EC)	Establishes a regime which sets underground water quality standards and introduces measures to prevent or limit inputs of pollutants into groundwater. Establishes quality criteria taking account of local characteristics. Member States have to establish standards at the most appropriate level and take into account local or regional conditions. It requires groundwater quality standards to be established by the end of 2008; pollution trend studies to be carried out by using existing data and mandatory WFD data; pollution trends to be reversed so that environmental objectives are achieved by 2015; measures to prevent or limit inputs of pollutants into groundwater; reviews of technical provisions of the directive to be carried out in 2013 and every six years thereafter; compliance with good chemical status criteria. This directive was replaced by the WFD at the end of 2013.	Ensure protection of groundwater quality forms part of the ISA framework.

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
Air Quality Directive (2008/50/EC)	Merges most existing air quality legislation into a single directive that sets standards and target dates for reducing concentrations of fine particles, which together with coarser particles known as PM_{10} already subject to legislation, are among the most dangerous pollutants for human health. Under the directive Member States are required to reduce exposure to $PM_{2.5}$ in urban areas by an average of 20% by 2020 based on 2010 levels. It obliges them to bring exposure levels below 20 micrograms/m^3 by 2015 in these areas. Throughout their territory Member States will need to respect the $PM_{2.5}$ limit value set at 25 micrograms/m^3.	Ensure protection of air quality objective within the ISA framework.
Ambient Air Quality and Cleaner Air for Europe Directive (2008/50/EC)	This Directive includes the following key elements: ▪ The merging of most of existing legislation into a single directive (except for the fourth daughter directive) with no change to existing air quality objectives* ▪ New air quality objectives for PM2.5 (fine particles) including the limit value and exposure related objectives – exposure concentration obligation and exposure reduction target ▪ The possibility to discount natural sources of pollution when assessing compliance against limit values ▪ The possibility for time extensions of three years (PM10) or up to five years (NO2, benzene) for complying with limit values, based on conditions and the assessment by the European Commission.	Ensure protection of air quality objective within the ISA framework.
Clean Air Programme for Europe 2013	This programme contains measures to ensure that existing targets are met in the short term, and new air quality objectives for the period up to 2030. The package also includes support measures to help cut air pollution, with a focus on improving air quality in cities, supporting research and innovation, and promoting international cooperation. By 2030, and compared to business as usual, the clean air policy package is estimated to: ▪ avoid 58 000 premature deaths across Europe, ▪ save 123 000 km^2 of ecosystems from nitrogen pollution (more than half the area of Romania), ▪ save 56 000 km^2 protected Natura 2000 areas (more than the entire area of Croatia) from nitrogen pollution, ▪ save 19 000 km^2 forest ecosystems from acidification.	Ensure protection of air quality objective within the ISA framework.
EU Thematic Strategy on Air Quality (2005)	This thematic strategy on air pollution establishes interim objectives for air pollution in the EU and proposes appropriate measures for achieving them. It recommended that legislation be modernised, be better focused on the most serious pollutants and that more is done to integrate environmental concerns into other policies and programmes.	Ensure air quality objective within the ISA framework.
National Emissions Ceilings Directive (2001/81/EC)	This directive seeks to reduce emissions of those pollutants that cause acidification, eutrophication and ground-level ozone in order to protect the environment and human health. Its long-term objective is to ensure that pollutant levels remain below their critical loads and critical levels these being the amounts of pollutants below which, significant adverse effects do not occur. The following interim environmental objectives have been set against a 1990 base:	Ensure protection of air quality objective within the ISA framework.

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	▪ Acidification: areas where critical loads are exceeded to be reduced by at least 50%; ▪ Ground-level ozone (health): load above critical level for human health to be reduced by two-thirds and load in any area not to exceed a specified absolute limit; and ▪ Ground-level ozone (vegetation): load above critical level for vegetation to be reduced by one-third and load in any area not to exceed a specified absolute limit.	
UN Framework Convention on Climate Change 1992, Kyoto Protocol 1997, Paris Agreement 2015 etc.	A series of international agreements setting targets and legally binding agreements for industrialised countries to cut their greenhouse gas emissions. The Paris Agreement is the latest international agreement and its overarching goal is to hold "the increase in the global average temperature to well below 2°C above pre-industrial levels" and pursue efforts "to limit the temperature increase to 1.5°C above pre-industrial levels." Note is also made of the UK Nationally Determined Contribution that commits to reducing greenhouse gases by 68% by 2030 compared to 1990 levels.	Ensure reduction of greenhouse gas emissions objective within the ISA framework.
Seventh EU Environmental Action Plan 2013-2020	This action plan will be guiding European environment policy until 2020. In order to give more long-term direction it sets out a vision beyond that, of where it wants the Union to be by 2050: "In 2050, we live well, within the planet's ecological limits. Our prosperity and healthy environment stem from an innovative, circular economy where nothing is wasted and where natural resources are managed sustainably, and biodiversity is protected, valued and restored in ways that enhance our society's resilience. Our low-carbon growth has long been decoupled from resource use, setting the pace for a safe and sustainable global society." It identifies three key objectives: ▪ to protect, conserve and enhance the Union's natural capital ▪ to turn the Union into a resource-efficient, green, and competitive low-carbon economy ▪ to safeguard the Union's citizens from environment-related pressures and risks to health and wellbeing. Other key aspects include the need for full integration of environmental requirements and considerations into other policies and to make EU cities more sustainable.	Ensure that issues such as carbon minimisation, biodiversity, waste reduction and managing natural resources sustainably are addressed via the ISA.
Renewable Energy Directive (2009/28/EC)	The Renewable Energy Directive establishes an overall policy for the production and promotion of energy from renewable sources in the EU. It requires the EU to fulfil at least 20% of its total energy needs with renewables by 2020 – to be achieved through the attainment of individual national targets. All EU countries must also ensure that at least 10% of their transport fuels come from renewable sources by 2020.	Ensure promotion of alternative / renewable technologies for energy production when developing transport interventions. Ensure promotion of active

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
		travel is considered in ISA
Energy Efficiency Directive (2012/27/EU)	The 2012 Energy Efficiency Directive establishes a set of binding measures to help the EU reach its 20% energy efficiency target by 2020. Under the Directive, all EU countries are required to use energy more efficiently at all stages of the energy chain from its production to its final consumption. On 30 November 2016 the Commission proposed an update to the Energy Efficiency Directive including a new 30% energy efficiency target for 2030, and measures to update the Directive to make sure the new target is met.	Ensure promotion of alternative / renewable technologies for energy production when developing transport interventions. Ensure promotion of active travel is considered in ISA
EU Strategy on Adaptation to Climate Change	The EU strategy on adaptation to climate change aims at making Europe more climate-resilient. Taking a coherent approach by complementing the activities of Member States, it supports action by promoting greater coordination and information-sharing and by ensuring that adaptation considerations are addressed in all relevant EU policies.	Ensure an objective relating to extreme weather resilience is included within the ISA framework.
Road map to a Single European Transport Area 2011	The European Commission adopted a roadmap of 40 concrete initiatives to build a competitive transport system that will increase mobility, remove major barriers in key areas and fuel growth and employment. At the same time, the proposals aimed to dramatically reduce Europe's dependence on imported oil and cut carbon emissions in transport by 60% by 2050. By 2050, key goals will include: ▪ No more conventionally-fuelled cars in cities. ▪ 40% use of sustainable low carbon fuels in aviation; at least 40% cut in shipping emissions. ▪ A 50% shift of medium distance intercity passenger and freight journeys from road to rail and waterborne transport. ▪ All of which will contribute to a 60% cut in transport emissions by the middle of the century.	Ensure an objective relating to reduction in transport emissions is included in the ISA framework and that the issue of alternative / enabling technologies is considered.
Floods Directive (2007/60/EC)	Concerns the assessment and management of flood risk and requires Member States to assess if all water courses and coast lines are at risk from flooding, to map the flood extent and assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk. Also reinforces the rights of the public to access this information and to have a say in the planning process.	Ensure an objective covering flooding is considered within the ISA framework.

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
European Thematic Strategy for Soil Protection (2006)	The overall objective of this strategy is protection and sustainable use of soil, based on the following guiding principles: 1. Preventing further soil degradation and preserving its functions: 2. when soil is used and its functions are exploited, action has to be taken on soil use and management patterns, and 3. when soil acts as a sink/receptor of the effects of human activities or environmental phenomena, action has to be taken at source. 4. Restoring degraded soils to a level of functionality consistent at least with current and intended use, thus also considering the cost implications of the restoration of soil.	Ensure that protection of soil resources is included as an objective within the ISA framework
European Landscape Convention	Promotes landscape protection, management and planning, and European co-operation on landscape issues. The Convention recognizes that the landscape is shaped by natural and cultural influences. Highlights the importance of developing landscape policies dedicated to the protection, management and creation of landscapes, and establishing procedures for the general public and other stakeholders to participate in policy creation and implementation.	Ensure a landscape objective is included in the ISA framework.
Convention for the Protection of the Architectural Heritage of Europe (1985)	Reinforces and promotes policies for the conservation and enhancement of Europe's heritage.	Ensure protection of historic environment objective within ISA framework.
European Convention on the Protection of the Archaeological Heritage (1992)	Updates the previous 1969 Convention and makes conservation and enhancement of archaeological heritage a goal of urban and regional planning policies. It is concerned in particular with arrangements to be made for co-operation among archaeologists and town and regional planners in order to ensure optimum conservation of archaeological heritage. Sets guidelines for funding excavation and research work and publication of findings. Also deals with public access and educational actions to develop public awareness of the value of archaeological heritage.	Ensure protection of historic environment objective within ISA framework.
World Heritage Convention 1972	This convention noted that the cultural heritage and the natural heritage are increasingly threatened with destruction not only by the traditional causes of decay, but also by changing social and economic conditions which aggravate the situation with even more formidable phenomena of damage or destruction and considered that deterioration or disappearance of any item of the cultural or natural heritage constitutes a harmful impoverishment of the heritage of all the nations of the world.	Ensure protection of historic environment objective within ISA framework.
Aarhus Convention 2001	The Aarhus Convention is a multilateral environmental agreement through which the opportunities for citizens to access environmental information are increased and transparent and reliable regulation procedure is secured. It encourages access to information, public participation and access to justice.	The ISA will be consulted upon and open to scrutiny as per

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
		the requirement of the relevant regulations.
WHO Guidelines for Community Noise 1999	The World Health Organisation (WHO) publication entitled 'Guidelines for Community Noise' (1999), provides guidance with regard to recommended internal and external noise levels for various building uses, outlining the potential health impacts associated with noise. Specifically, the document recommends internal and external noise levels that would provide an acoustic environment that is conducive to uninterrupted speech and sleep.	Ensure that the health and well-being of people is addressed through an objective in the ISA framework and that noise issues are considered.
WHO Night Noise Guidelines for Europe 2009	The World Health Organisation (WHO) Night Noise Guidelines for Europe (NNG) 2009 are health-based guidelines and are to be considered an extension and update to the WHO Guidelines for Community Noise 1999. WHO NNG provides evidence based policy advice to member states in the development of future legislation and policy action in the area of control and surveillance of night noise exposure.	Ensure that the health and well-being of people is addressed through an objective in the ISA framework and that noise issues are considered.
Environmental noise guidelines for the European Region	The WHO Regional Office for Europe has developed these guidelines, based on the growing understanding of the negative health impacts of exposure to environmental noise. The main purpose of these guidelines is to provide recommendations for protecting human health from exposure to environmental noise originating from various sources: transportation (road traffic, railway and aircraft) noise, wind turbine noise and leisure noise. They provide robust public health advice underpinned by evidence, which is essential to drive policy action that will protect communities from the adverse effects of noise. The guidelines are published by the WHO Regional Office for Europe.	Ensure potential health impacts associated with noises are considered in the ISA framework.
Environmental Noise Directive (2002/49/EC)	This Directive relates to the assessment and management of environmental noise and is the main EU instrument to identify noise pollution levels and to trigger the necessary action both at Member State and at EU level. To pursue its stated aims, the Environmental Noise Directive focuses on three action areas: • the determination of exposure to environmental noise • ensuring that information on environmental noise and its effects is made available to the public • preventing and reducing environmental noise where necessary and preserving environmental noise quality where it is good The Directive applies to noise to which humans are exposed, particularly in built-up areas, in public parks or other quiet areas in an agglomeration, in quiet areas in open country, near schools, hospitals and other noise-sensitive buildings and areas. It does not apply to noise that is caused by the exposed person himself, noise from domestic	Ensure that the health and well-being of people is addressed through an objective in the ISA framework and that noise issues are considered.

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	activities, noise created by neighbours, noise at workplaces or noise inside means of transport or due to military activities in military areas. The Directive requires Member States to prepare and publish, every 5 years, noise maps and noise management action plans for: ▪ agglomerations with more than 100,000 inhabitants ▪ major roads (more than 3 million vehicles a year) ▪ major railways (more than 30.000 trains a year) ▪ major airports (more than 50.000 movements a year, including small aircrafts and helicopters)	
Waste Framework Directive (75/442/EEC)	The original aim of the Waste Framework Directive was to lay the basis to turn the EU into a recycling society and contained 5 key steps in the waste hierarchy concept: ▪ Prevention ▪ Reuse ▪ Recycle ▪ Recovery ▪ Disposal The revised Waste Directive introduces new provisions aimed at boosting waste prevention and recycling as part of the waste hierarchy and clarifies key concepts such as the definition of waste, recovery and disposal.	Ensure that the issue of the prudent use of natural resources and waste reduction are considered in the ISA framework through an Objective.
Towards Social Investment for Growth and Cohesion 2014 - 2020	This document, alongside a series of Staff Working Documents, form the Social Investment Package. This outlines a policy framework for redirecting Member States policies where needed towards social investment throughout life, with a view to ensuring the adequate and sustainability of budgets for social policies and for the government and private sector as a whole.	No implications. Informative only.
NATIONAL		
Environmental Protection Act 1990	This act brings in a system of integrated pollution control for the disposal of wastes to land, water and air. There are three parts of the Act. These are: Part I- establishes integrated pollution control and gives Local Authorities new powers to control air pollution from a range of prescribed processes; Part II- improves the rules on waste disposal; and Part III- covers statutory nuisances and clean air.	Ensure that prevention and minimisation of pollution to air and water is considered in the ISA objective.
Environment Bill Policy Statement 2020	The Government's Environment Bill Policy Statement introduces new incentives, actions and planning tools to drive further improvements for nature. The Bill introduces a mandatory requirement for Biodiversity Net Gain in the planning system, to ensure that new developments contribute to the recovery of biodiversity and this requirement	The ISA framework will need to consider need for improvements to

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	can also create new green spaces for local communities to enjoy. It also adds a new concept of Local Nature Recovery Strategies. The Environment Bill sets a new environmental governance framework as the UK leaves the European Union's environmental policy and legislative structures. The Bill will put the environment at the centre of policy making. It will make sure that we have a cleaner, greener and more resilient country for the next generation. It will place a legal duty on ministers of the crown in relation to five environmental principles listed in section 16(5) of the bill: ▪ The principle that environmental protection should be integrated into the making of policies ▪ The principle of preventative action to avert environmental damage ▪ The precautionary principle, so far as relating to the environment ▪ The principle that environmental damage should as a priority be rectified at source	nature and recovery of biodiversity.
Draft Environment Strategy	Northern Ireland's first Environment Strategy will form the basis for a coherent and effective set of interventions that can deliver real improvements in the quality of the environment and thereby: improve the health and well-being of all who live and work in Northern Ireland; create opportunities to develop Northern Ireland's economy; elevate Northern Ireland to an environmental leader; and enable us to play our part in protecting the global environment for many decades to come. The Environment Strategy forms part of the Executive's wider Green Growth agenda and, for the most part, is intended to be a high-level, Executive-endorsed strategy that will sit alongside both new and existing strategies. There are six Strategic Environmental Outcomes (SEOs) for the Environment Strategy, each with a set of actions, targets and desired outcomes: 1. Excellent Air, Water, Land & Neighbourhood Quality; 2. Healthy & Accessible Environment & Landscapes Everyone Can Connect With & Enjoy; 3. Thriving, Resilient & Connected Nature & Wildlife; 4. Sustainable Production & Consumption On Land & At Sea; 5. Zero Waste & Highly Developed Circular Economy; and 6. Fair Contribution To UK Net Zero GHG Emissions & Improved Climate Resilience & Adaptability.	The ISA framework will need to consider need for improvements to nature and recovery of biodiversity.
The Environment Improvement Plan for Northern Ireland 2023	The Plan is the first five year review of the 25 year Environment plan and sets out the plan to deliver it. The Plan uses the ten goals set out in the 25-year Environment plan and sets out progress made against these, the targets and commitments for each and the plan to continue to deliver these targets and the overarching goals. Northern Irelands Plan, which was due to be published July 2023, will set out how DAERA, and other NI departments, intend to take to improve the natural environment, including measures needed to meet its long-term and interim targets.	Ensure the protection and enhancement of biodiversity aligns with the targets and commitments of the plan, and is included in

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	The preparation and publication of an EIP is a statutory duty placed upon the Department of Agriculture, Environment and Rural Affairs (DAERA) by Schedule 2 to the Environment Act 2021 (the Act).	an objective within the ISA.
Environmental Principles Policy Statement for Northern Ireland 2026	The purpose of the Northern Ireland Environmental Principles Policy Statement (NI EPPS) is to ensure that environmental protection and sustainable improvement are placed at the heart of government decision-making across all Government departments. The NI EPPS guides officials on how to interpret and apply five core environmental principles proportionately: 1. Integration Principle: Embedding environmental protection into the making of all public policies. 2. Prevention Principle: Taking proactive, preventative action to avert environmental damage. 3. Precautionary Principle: Ensuring a lack of full scientific certainty is not used as an excuse to postpone cost-effective measures when there is a threat of serious harm. 4. Rectification at Source: Prioritizing the cleanup or repair of environmental damage directly where it occurred. 5. Polluter Pays Principle: Ensuring that those who cause environmental damage bear the financial cost of remediation or containment	Ensure that the Objectives and Decision Aid Questions of the ISA are reflective of the five principles.
Wildlife and Countryside Act 1981	An Act prohibiting and limiting actions involving wild animals, and the primary piece of legislation for wildlife protection in the UK. Prohibitions include taking, injuring, killing and disturbing. It is also an offence to disturb places used for shelter and protection. The Act [inter alia] prohibits certain methods of killing or taking wild animals; amends the law relating to protection of certain mammals; restricts the introduction of certain animals and plants; amends the Endangered Species (Import and Export) Act 1976; amends the law relating to nature conservation, the countryside and National Parks; and amends the law relating to public rights of way.	Ensure biodiversity is covered by objectives within ISA framework.
The Wildlife (Northern Ireland) Order 1985 (as amended)	The Act establishes the protection of birds, other animals and other wildlife including wild plants and new species introductions. Specific details include methods for killing or taking birds or animals, protecting nests and eggs and the power to grant licenses. Amendments to the 1985 order are made with respect to birds, enabling licences to be granted for killing wild birds and animals whilst increasing protection for birds more generally.	Ensure biodiversity is covered by objectives within ISA framework through an Objective.
Wildlife and Natural Environment Act (NI) 2011	This Act amends the Wildlife (NI) Order 1985 and the Environment (NI) Order 2002 and adds new provisions to protect a greater range of plants, animals, birds and to increase protection to Areas of Special Scientific Interest. It introduces new statutory duties upon government departments and public bodies to take action to further the conservation of biodiversity. Sections 4 to 28 of the Act relate to amendments to the Wildlife (Northern Ireland) Order 1985. Sections 29 to 34 relate to amendments to the Environment (Northern Ireland) Order 2002.	Ensure biodiversity is covered by objectives within ISA framework through an Objective.
The Conservation (Natural Habitats, etc) Regulations	These regulations transpose the Habitats Directive in relation to Northern Ireland. They provide for the protection of sites in the UK that support habitats and species in need of conservation across Europe and full protection of	Ensure biodiversity is covered by objectives

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
(Northern Ireland) 1995 (as amended)	species of European importance whether occurring within designated sites or not. The regulations include the power to grant protected species licences.	within ISA framework through an Objective.
Countryside and Rights of Way Act 2000 (CROW Act)	This Act contains five Parts and 16 Schedules and provides for public access on foot to certain types of land, amends the law relating to public rights of way, increases measures for the management and protection for Sites of Special Scientific Interest (SSSI) and strengthens wildlife enforcement legislation, and provides for better management of Areas of Outstanding Natural Beauty (AONB). The Act is compliant with the provisions of the European Convention on Human Rights, requiring consultation where the rights of the individual may be affected by these measures.	Ensure that public access to countryside and the protection of designated features are considered within the ISA framework.
National Pollinator Strategy 2014-2024	It is recognised that Pollinators face many pressures which have led to declines in numbers, and a reduction in the diversity of species to be found in many parts of the country. As a response, DEFRA developed the National Pollinator Strategy, which over the years 2014-2024 aims to build a solid foundation to bring about the best possible conditions for bees and other insects to flourish. This will fulfil the vision of the Strategy which is to see pollinators thrive so that they can carry out their essential service to people of pollinating flowers and crops, while providing other benefits for native plants, the wider environment, food production and all of us.	Ensure the protection of biodiversity within the ISA framework.
UK Biodiversity Plan (1994)	This document represents the first United Kingdom biodiversity action plan. It contains three sections: ▪ Section 1 – describes the UKs biological resources and their global importance as well as the range of biodiversity within the UK from a historical and geological importance ▪ Section 2- describes the UK's strategy and programmes and examines threats, problems and opportunities of biodiversity. ▪ Section 3- draws the components of the action plan together and provides a forward work programme.	Ensure the protection and enhancement of biodiversity is included as an objective within the ISA framework.
UK Post-2010 Biodiversity Framework (2012)	This is a Framework that covers the period from 2011 to 2020 and was developed in response to two main drivers: the Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020 and its 5 strategic goals and 20 'Aichi Biodiversity Targets', published in October 2010; and the EU Biodiversity Strategy (EUBS), released in May 2011. The Framework shows how the work of the four UK countries joins up with work at a UK level to achieve the 'Aichi Biodiversity Targets' and the aims of the EU biodiversity strategy. It identifies the activities required to complement the country biodiversity strategies, and where work in the country strategies contributes to international obligations. In total, 23 areas of work have been identified where all the countries have agreed that they want to contribute to, and benefit from, a continued UK focus, and an Implementation Plan was published in November 2013.	Ensure the protection and enhancement of biodiversity is included as an objective within the ISA framework.

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UK Biodiversity Framework (UKBF) 2024	This renewed UKBF refreshes the "broad enabling structure" of the 2012 framework in the context of the new commitments by: ▪ Setting out the shared objectives for co-operation and collaboration between the four countries of the UK; ▪ Establishing a governance structure for overseeing and achieving the shared objectives. The UK is committed to taking positive action and is party to Multilateral Environmental Agreements such as the Convention on Biological Diversity (CBD), the United Nations Framework Convention on Climate Change, and the Convention on International Trade in Endangered Species. The Kunming Montreal Global Biodiversity Framework, agreed at the COP 15 sets out its purpose as 'aiming to catalyze, enable and galvanize urgent and transformative action by Governments, and subnational and local authorities, with the involvement of all of society, to halt and reverse biodiversity loss, to achieve the outcomes it sets out in its Vision, Mission, Goals and Targets…' (Convention on Biological Diversity 2022). This UK Biodiversity Framework sets out four objectives for cross-UK work relating to biodiversity policy and supporting evidence: 1. To contribute to informing and developing the UK's position in international agreements and policy making. 2. To coordinate collective achievement of the UK's international obligations. 3. To enable and support country input to reporting required under the UK's international obligations. 4. To inform each other of domestic policy developments and collaborate to achieve shared aims where there is benefit in doing so at a UK level.	Ensure the protection and enhancement of biodiversity is included as an objective within the ISA framework.
UK National Biodiversity Strategy and Action Plan (NBSAP) 2025	NBSAPs are the main instrument for planning the implementation of the Convention on Biological Diversity (CBD) at the national level. The UK NBSAP for 2030 draws on the commitments made by the UK, the UK Overseas Territories, and Crown Dependencies to summarise and emphasise our collective ambition and determination to work together to address biodiversity loss. The UK NBSAP commits the UK to achieving all 23 of the Kunming-Montreal Global Biodiversity Framework targets at home. that include actions that need to be initiated immediately and completed by 2030. The UK submitted a set of 23 National Targets to the CBD on 1st August 2024. These sit alongside the NBSAP and include a subset of country-level commitments to illustrate the actions by which the GBF will be delivered in the UK.	Ensure the protection of biodiversity is included as an objective within the ISA framework.
Valuing Nature: A Biodiversity Strategy for Northern Ireland to 2020	The Strategy sets out how Northern Ireland plans to meet its international obligations and local targets to protect biodiversity and ensure that the environment can continue to support our people and economy. It builds upon the previous Biodiversity Strategy but adopts the modern and internationally agreed approach that emphasises the management of biological systems to deliver the materials and services upon which people depend – the ecosystem services approach. The aim of the Strategy is to manage natural and man-modified systems to deliver a multitude of outputs which support society and the economy. High-level challenges to be answered by the Strategy are as follows:	Ensure the protection and enhancement of biodiversity is included as an objective within the ISA framework.

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	▪ Valuing the environment in the broadest context ▪ Reducing the impact of climate change ▪ Obtaining adequate resources for biodiversity projects from a wide range of sources ▪ Encouraging ecosystems scale protection measures ▪ Enhancing data gathering and management ▪ Tackling invasive species ▪ Engaging society more fully to halt biodiversity loss	
Biodiversity Strategy for NI to 2020	This Strategy sets out how Northern Ireland plans to meet its international obligations and local targets to protect biodiversity and ensure that the environment can continue to support people and the economy. It builds upon the first Biodiversity Strategy published in 2002 but adopts the modern and internationally agreed approach that emphasises the management of biological systems to deliver the materials and services upon which people depend – the ecosystem services approach. A number of high-level challenges have been identified which will require particular attention: ▪ valuing the environment in the broadest context; ▪ reducing the impact of climate change; ▪ obtaining adequate resources for biodiversity projects from a wide range of sources; ▪ encouraging ecosystem scale protection measures; ▪ enhancing data gathering and management; ▪ tackling invasive species; and ▪ engaging society more fully to halt biodiversity loss.	Ensure the protection and enhancement of biodiversity is included as an objective within the ISA framework.
Climate Change Act 2008 and its 2050 Target Amendment Order, 2019	The Act aims to improve carbon management, helping the transition towards a low-carbon economy in the UK and to demonstrate UK leadership internationally. Key provisions of the Act include: ▪ a legally binding target of at least an 80% cut in greenhouse gas emissions by 2050 and a reduction in emissions of at least 34% by 2020 (both against 1990 baseline). Note the 2050 target has now been amended to Net Zero ▪ a carbon budgeting system that caps emissions over five-year periods; ▪ creation of the Committee on Climate Change; ▪ further measures to reduce emissions, including measures on biofuels; ▪ a requirement for the Government to report at least every five years on the risks to the UK of climate change, and to publish a programme setting out how these will be addressed.	Ensure that climate change resilience is addressed within the ISA framework. through the inclusion of an appropriate objective. Note also the amended Target of Net Zero by 2050.

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	The Act also introduces powers for Government to require public bodies and statutory undertakers to carry out their own risk assessment and make plans to address those risks	
Climate Change Risk Assessment 2017	The Government published the UK Climate Change Risk Assessment (CCRA) in January 2017, the second assessment of its kind in the UK, following from the 2012 assessment. It sets out the main priorities for adaptation in the UK under the key themes identified in the CCRA 2017 Synthesis Report. It describes the policy context, and action already in place to tackle some of the risks in each area as well as highlights the constraints of the CCRA analysis and provides advice on how to take account of the uncertainty within the analysis. Note consideration of CCRA3, due to be laid before parliament by January 2022 should be taken once available.	Ensure that climate change resilience is addressed within the ISA framework. through the inclusion of an appropriate objective.
UK Climate Change Risk Assessment 2017 Synthesis report: priorities for the next five years	This report outlines the UK Government's views on the main issues raised in the Climate Change Risk Assessment (CCRA) Evidence Report (an independent analysis funded by UK Government and Devolved Governments), to highlight actions already in place to manage the risks identified in the CCRA, and to outline UK Government plans for the future. This report sets out the main priorities for adaptation in the UK under five key topics identified in the CCRA Evidence Report: Natural environment and natural assets; Infrastructure; People and the built environment; Business and industry and international dimensions and describes the policy context in each area.	The ISA framework should consider objectives that would promote an improved resilience to climate change.
UK Climate Change Risk Assessment 2022	The assessment is the third five-year assessment of the risks of climate change on the UK as required by the Climate Change Act 2008. The risk assessment considers 61 UK-wide climate risks and opportunities cutting across multiple sectors of the economy and identifies the following eight priority risk areas for urgent action in the next two years: ▪ risks to the viability and diversity of terrestrial and freshwater habitats and species from multiple hazards ▪ risks to soil health from increased flooding and drought ▪ risks to natural carbon stores and sequestration from multiple hazards ▪ risks to crops, livestock and commercial trees from multiple climate hazards ▪ risks to supply of food, goods and vital services due to climate-related collapse of supply chains and distribution networks ▪ risks to people and the economy from climate-related failure of the power system ▪ risks to human health, wellbeing and productivity from increased exposure to heat in homes and other buildings ▪ multiple risks to the UK from climate change impacts overseas	The ISA framework should consider objectives that would promote an improved resilience to climate change.

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Low Carbon Transition Plan 2009	This White Paper sets out the UK's first ever comprehensive low carbon transition plan to 2020. This plan states it will deliver emission cuts of 18% on 2008 levels by 2020 (and over a one third reduction on 1990 levels). Key steps include: ▪ Getting 40% of our electricity from low carbon sources by 2020 ▪ Helping make the UK a centre of green industry by supporting the development and use of clean technologies, including up to £120 million investment in offshore wind and an additional £60 million to cement the UK's position as a global leader in marine energy. Transforming transport by cutting average carbon dioxide emissions from new cars across the EU by 40% on 2007 levels, supporting the largest demonstration project in the world for new electric cars, and sourcing 10% of UK transport energy from sustainable renewable sources by 2020	Ensure that reduction of Carbon, with a particular emphasis on road transport is included as an Objective within the ISA framework. Ensure that reducing the need to travel by car is included as an Objective within the ISA framework.
Decarbonising Transport: Setting the Challenge 2020	Setting the Challenge is a policy and baselining report, establishing the groundwork from which a latter 2020 Transport Decarbonisation Plan (TDP) will work. It is not a plan in itself. The TDP was planned to be published ahead of the 2020 United Nations Framework Convention on Climate Change Conference in November 2020. No word has been given on a delayed release date, given the postponement of the conference to November 2021 due to the Coronavirus pandemic. Regardless, it is intended that the TDP will put forward a credible implementation plan for how ambitious greenhouse gas and decarbonisation targets will be met across the whole UK transport network. Setting the Challenge therefore investigates the role of transport in carbon and other greenhouse gas emissions, and gives the current position of each transport mode, in terms of emission levels, compared to historical emissions, describes related current governmental aims and targets, and lists current policies aiming to deliver planned targets and future work. The priorities for the Government, further distilled in the ministerial foreword, appear to be as follows: ▪ Public transport and active travel will be the natural first choice for our daily activities. We will use our cars less and be able to rely on a convenient, cost-effective and coherent public transport network. ▪ From motorcycles to HGVs, all road vehicles will be zero emission. Technological advances, including new modes of transport and mobility innovation, will change the way vehicles are used. ▪ Our goods will be delivered through an integrated, efficient and sustainable delivery system. ▪ Clean, place-based solutions will meet the needs of local people. Changes and leadership at a local level will make an important contribution to reducing national GHG emissions. ▪ The UK will be an internationally recognised leader in environmentally sustainable, low carbon technology and innovation in transport.	Ensure that reduction of Carbon, with a particular emphasis on road transport is included as an Objective within the ISA framework. Ensure that reducing the need to travel by car is included as an Objective within the ISA framework.

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	▪ We will lead the development of sustainable biofuels, hybrid and electric aircraft to lessen and remove the impact of aviation on the environment and by 2050, zero emission ships will be commonplace globally.	
Carbon Plan: Delivering our low carbon future 2011	This plan sets out how the UK will achieve decarbonisation within the framework of energy policy: to make the transition to a low carbon economy while maintaining energy security, and minimising costs to consumers, particularly those in poorer households. It outlines the progress so far in terms of emissions as well the future vision in order to cut emissions by 80% by 2050.	Ensure that reduction of Carbon, with a particular emphasis on road transport is included as an Objective within the ISA framework. Ensure that the prudent use of natural resources (including energy) is included as an Objective within the ISA framework.
UKCP18	The UK Climate Projections (UKCP) provides the most up-to-date assessment of how the UK climate may change in the future. UKCP18 provides a new set of climate projections and tools to access climate data. The major innovations in UKCP18 include the use of new observations of weather and climate, inclusion of a more recent generation of climate models from around the world and the results from latest Met Office global and regional climate models. The projections can then be used to inform guidance such as the Environment Agency's guidance on flood risk assessment.	The ISA framework should consider objectives that would promote an improved resilience to climate change.
Planning Practice Guidance – Climate Change 2019	Advises how planning can identify suitable mitigation and adaptation measures in plan-making and the planning application process to address the potential impacts of climate change.	Ensure that climate change resilience is addressed within the ISA framework through the inclusion of an appropriate objective.
Clean Growth Strategy 2017	The Clean Growth Strategy deals specifically with the challenge of trying to grow the UKs economy whilst reducing its emissions. This issue is dealt with across multiple strategies, and several sectors have a large role to play. This strategy details the approach of each sector and sets out key policies for each. The guiding principles of the Clean Growth Strategy are to, through nurturing low carbon technologies, processes, and systems:	ISA needs to recognise the importance of reducing emissions – including Carbon and all other GHG, as well as the full range of air

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	▪ meeting the UK's domestic commitments at the lowest possible net cost to UK taxpayers, consumers, and businesses; and ▪ maximising the social and economic benefits for the UK from this transition. The key policies to achieve this are sorted into the following categories: ▪ accelerating clean growth; ▪ improving business and industry efficiency (25% of emissions); ▪ improving our homes (13% of emissions); ▪ accelerating the shift to low carbon transport (24% of emissions); ▪ delivering clean, smart, flexible power (21% of emissions); ▪ enhancing the benefits and value of our natural resources (15% of emissions); ▪ leading in the public sector (2% of emissions); and ▪ government leadership in driving clean growth. Regarding transport, the primary aim described in detail is a pathway to, by 2032, achieve a 32% reduction in carbon emissions compared to 1990, by: ▪ accelerating uptake of ULEVs; ▪ developing a more efficient and low carbon freight system; ▪ a cleaner public transport system; ▪ a reduction in the number of shorter journeys made by car; and ▪ a near doubling of sustainable bioenergy used in the transport sector.	pollutants. This strategy sets out ways in which this can be achieved.
The Draft Green Growth Strategy	This draft Strategy establishes NIs Green Growth vision and principles and sets out our commitments to tackling the climate crisis. A detailed Climate Action Plan is currently being developed, which will set out what will be done to deliver this. This strategy provides the overarching framework that brings together existing strategies and policies of government that supports the delivery of climate action, for example, the Energy Strategy. Ten executive commitments have been set out within this strategy: 1. Embedding Green Growth – ensure that Green Growth is central to all policy and budgetary decisions by introducing a statutory Green Growth test and making Green Growth a budgetary priority 2. Legislating for Change - introduce legislation for reducing greenhouse gas emissions consistent with the UK's ambition to achieve net zero by 2050 and, to deliver upon this, we will develop clear targets and pathways in a Climate Action Plan from 2022 3. A Fair Transition - ensure that the transition made will be a "Just Transition", fair for all citizens, and will establish a Just Transition Commission in 2022	ISA needs to recognise the importance of reducing emissions – including Carbon and all other GHG.

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	4. People First - put citizens at the heart of the Green Growth policy development and delivery by ensuring ongoing engagement with young people and other key groups, including a Citizen Assembly Panel 5. Supporting Behavioural Change - promote behavioural change by providing low carbon options, infrastructure, timely information, advice and support to citizens and businesses to enable them to make informed choices on the transition to a low emissions economy 6. Evidence Based Decision Making - ensure decisions and actions associated with the transition to low emissions, green jobs and a clean environment are underpinned by robust and timely evidence and science 7. Investing in Green Growth - transform the economy by working proactively with businesses, communities and all parts of government to maximise funding and investment opportunities for Green Growth and promote innovation, skills, research and technology 8. Leading by Example - provide public sector leadership by delivering a government estate and fleet with net zero operational carbon emissions and ensure a Green Growth aligned procurement strategy for all government spend 9. Working with Others - commit to ensure all government departments and the wider public sector work together to maximise decarbonisation efforts, and will work in partnership with neighbours across UK regions and the Republic of Ireland 10. Measuring Progress - ensure sound governance and reporting arrangements for the delivery of the Green Growth Strategy and Climate Action Plan by recommending that the Assembly establish a Standing Committee on Climate Action and agree a monitoring framework for measuring progress.	
The Road to Zero, 2018	The Road to Zero strategy is a broad governmental "next steps" policy that outlines an ambition to decarbonise transport, and to strengthen the UK's offering in design and manufacturing of zero emission vehicles, and the role of zero emission road vehicles in the government's Industrial Strategy. The strategy is aligned to other national polices mentioned in this section. The policy sets targets for 50-70% of new car sales, and up to 40% of new van sales to be ultra-low emission by 2030. To support this, emphasis is given to several key policies: ▪ reducing emissions from the vehicles already on our roads; ▪ driving the uptake of the cleanest vehicles; ▪ reducing emissions from heavy goods vehicles (HGVs) and road freight; ▪ putting the UK at the forefront of the design and manufacturing of zero emission vehicles; and ▪ supporting the development of one of the best electric vehicle infrastructure networks in the world ▪ supporting local actions. The strategy sets out in detail the challenges brought about by the emissions of road transport, and the specifics of how different types of road transport produce these emissions. The strategy also acknowledges the difficulty in	ISA needs to recognise the importance of reducing emissions – including Carbon and all other GHG. This policy sets out ways in which this can be achieved.

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	maintaining a required level of road use for vital travel, commerce, and services, whilst restricting vehicle choice. Given the significant consequences of failing to act to reduce emissions, the report strikes a balance to prioritise reductions in emissions and maintain economic growth. Although the strategy refers to changes in travel modes for certain types of journeys, the emphasis of the report lies with maintaining a required level of road travel, with reductions in emissions achieved through encouraging a high proportion of low-emission vehicles on the roads.	
Northern Ireland Energy strategy	The Energy Strategy sets out a roadmap to achieve the highest levels of energy efficiency by 2050 as part of wider action to address climate change. It sets out two targets to drive these changes: 1. Energy Efficiency: Deliver energy savings of 25% from buildings and industry by 2030; and 2. Renewables: Meet at least 70% of electricity consumption from a diverse mix of renewable sources by 2030. This figure currently stands at 42%. The Energy Strategy also focus on Green Energy. Currently energy accounts for almost 60% of Northern Ireland's greenhouse gas emissions. The Energy Strategy aims to: ▪ Reduce energy-related emissions by 56% by 2030 relative to 1990 levels in line with the Climate Change Committee's (CCC) Carbon Budge Energy; ▪ Grow Northern Ireland's economy and supporting the 10X Economic Vision; ▪ Double the size of Northern Ireland's low carbon and renewable energy economy to more than £2bn turnover; and ▪ Bring together the skills, technologies and behaviours needed to advance the vision of net zero carbon and affordable energy by 2050.	ISA needs to recognise the importance of improving energy efficiency and increasing sustainable energy consumption.
National Infrastructure Strategy 2020	The National Infrastructure Strategy sets out the government's plans to transform the UK's infrastructure networks. It is based around three central objectives: economic recovery; levelling up and strengthening the Union; and meeting the UK's net zero emissions target by 2050. This will be enabled by clear support for private investment and through a comprehensive set of reforms to the way infrastructure is delivered. This Strategy sets out early actions that the government will take to build the infrastructure needed to achieve net zero, improve air quality, create a greener urban environment, and minimise the impact of flooding.	The ISA framework should consider including objectives that address the reduction of greenhouse gas emissions, as well as objectives that promote the transformation to an energy-efficient low carbon economy.
National Infrastructure Assessment 2018	The Assessment analyses the UK's long-term economic infrastructure needs, outlining a strategic vision over the next 30 years and setting out recommendations for how identified needs should be met. The Assessment provides a long term strategy for how to adapt the UK's infrastructure to deal with the pressures of climate change.	Ensure that climate change resilience is addressed within the

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		ISA framework through the inclusion of an appropriate objective.
The Second National Infrastructure Assessment 2023	The National Infrastructure Commission is required to carry out an overall assessment of the UK's infrastructure Requirements every five years. This is the second Assessment and covers all economic infrastructure sectors, setting out recommendations for transport, energy, water and wastewater, flood resilience, digital connectivity, and solid waste. It takes a 30 year view of the infrastructure needs within UK government competence and identifies the policies and funding to meet them.	The ISA framework should consider including objectives that address the reduction of greenhouse gas emissions, as well as objectives that promote the transformation to an energy-efficient low carbon economy.
The Ten Point Plan for a Green Industrial Revolution (2020)	The Ten Point Plan demonstrates the UK's progress towards reaching the legally binding obligation of reaching Net Zero greenhouse gas emissions by 2050, as in the last 30 years emissions have been cut by 43%. The cumulative effect of the Plan will be to reduce UK emissions by 180 Mt CO2 e between 2023 and 2032. Key components of the Plan are: ▪ Investment in renewables such as offshore wind and hydrogen; ▪ Investment in new and advanced nuclear power; ▪ Carbon removal through investment in CCUS and wildlife protection; and ▪ Demand reduction through shifts in transport and improving the efficiency of buildings.	The ISA framework should consider including objectives that address the reduction of greenhouse gas emissions, as well as objectives that promote the transformation to an energy-efficient low carbon economy.
Climate Change – The UK Programme 2006: Tomorrow's Climate Today's Challenge (House of Commons Environmental Audit Committee, 2006)	Although the 2000 Climate Change Programme helped put the UK on track, and even beyond, to meet the Kyoto greenhouse gas reduction commitment, this 2006 programme contains further commitments to help to achieve the national goal of reducing carbon dioxide to 60% below 1990 levels by 2050 (this has now been increased to 80% following the Climate Change Act (2008)). The Programme therefore sets out the Strategy for both international and national action. This Programme is based on a number of principles: ▪ The need to take a balanced approach with all sectors and all parts of the UK playing their part. ▪ The need to safeguard, and where possible enhance, the UK's competitiveness, encourage technological innovation, promote social inclusion and reduce harm to health. ▪ The need to focus on flexible and cost-effective policy options which will work together to form an integrated package.	The ISA framework should consider an objective relating to the reduction of greenhouse gas emissions.

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	▪ The need to take a long-term view, looking to targets beyond the first Kyoto commitment period and considering the need for the UK to adapt to the impacts of climate change. ▪ The need for the Programme to be kept under review. The Programme sets out the measures to reduce greenhouse gas emissions in six broad sectors: energy supply, business, transport, domestic, agriculture, forestry and land management and public and local government. The progress towards achieving UK and international climate change objectives has been (and will continue to be) monitored and reviewed. The UK Climate Change Programme: Annual Report to Parliament 2007 describes the steps taken to achieve the long-term goals and indicates the progress against objectives. Taking the results of the EU Emissions Trading Scheme into account, greenhouse gas emissions in 2005 were 19.1 per cent below base year levels and carbon dioxide emissions in 2006 were about 11 per cent below 1990 levels.	
Stern Review of the Economics of Climate Change (Stern, 2007)	The review examines the evidence on the economic impacts of climate change and explores the economics of stabilising greenhouse gases in the atmosphere. The second part of the review considers the complex policy challenges involved in managing the transition to a low-carbon economy and in ensuring that societies are able to adapt to the consequences of climate change. The document clearly identifies that adaptation is the only available response for impacts that will occur over the next few decades.	The ISA framework should consider an objective relating to the reduction of greenhouse gas emissions.
Air Pollution: Action in a Changing Climate (Defra, 2010)	The key messages from this document are: ▪ There is a link between air pollution and climate change as these originate from similar activities, for example transport and electricity generation. These links should be considered when managing policy. ▪ The UK's commitment to build a low carbon economy by 2050 will reduce air pollution but choices made to achieve this will impact upon the extent of air quality improvements. ▪ Air quality/climate change co-benefits could be achieved by promoting actions such as low-carbon vehicles. ▪ However, benefits for climate change may have negative impacts on air pollution and vice versa which need to be taken into consideration. Action will be required at international, national, regional and local levels to ensure that policies regarding air pollution and climate change are aligned to maximise co-benefits	The ISA framework should consider including objectives which seek to limit air pollution and reduce the impacts of air pollution on climate change.
The National Emission Ceilings Regulations 2018	These Regulations implement in the United Kingdom Directive 2016/2284/EU of the European Parliament and the Council relating to national emission ceilings or certain atmospheric pollutants. The Regulations require the Secretary of State to prepare an annual inventory of emissions of certain pollutants and to ensure in each year from 2020 until 2029 anthropogenic emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter occurring within the United Kingdom do not exceed the national emission reduction commitments.	The ISA framework should consider including objectives which seek to limit air pollution.

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Building a Low-Carbon Economy – The UK's Contribution to Tackling Climate Change (Committee on Climate Change, 2008) and the Fourth Carbon Budget: Reducing Emissions Through the 2020s (CCC, 2010)	This report from the Committee on Climate Change, the Government's independent advisor, explains why the UK should aim for an 80% reduction in CO2 emissions by 2050 and how that is attainable, and recommends the first three budgets that will define the path to 2022. In addition, the Fourth Carbon Budget report outlines the emission targets for the 2023-2027 time period. Both reports make recommendations on how these targets could be reached while cutting carbon emissions across a range of sectors.	The ISA framework should consider including objectives that address climate change and the reduction of carbon emissions, as well as objectives that promote the transformation to a low carbon economy.
BIS Climate Change Adaptation Plan 2011	BIS's Climate Change Adaptation Plan sets out how BIS will begin to address the challenges of the impacts of climate change. The report outlines five aims: ▪ Engaging with stakeholders in order to ensure the research on risks and opportunities of climate change is ▪ communicated as it becomes available. ▪ Addressing initial priority actions to sectors such as retail and construction and resilience and promote adaptation to ▪ climate change along with low carbon technology and reducing emissions. ▪ Encouraging green innovation. Increasing the supply of Science, Technology, Engineering and Mathematics (STEM) skills at all levels and developing mechanisms for transferring them to new industrial contexts to ensure there are more people with the necessary environmental expertise.	The ISA framework should consider including objectives that would promote an improved resilience of energy infrastructure to climate change.
Industrial Decarbonisation Strategy 2021	The aim of this strategy is to show how the UK can have a thriving industrial sector aligned with the net zero target, without pushing emissions and business abroad, and how government will act to support this. This strategy is part of a series of publications from government, which combined show how the net zero transition will take place across the whole UK economy. The strategy aims to: ▪ show how the UK can have a thriving industrial sector aligned with the net zero target, without pushing emissions and business abroad ▪ show how and when government will act to support this, while sharing the costs and risks fairly between industry, its customers and the taxpayer ▪ start a conversation with industry, its workforce, customers and communities about the future of industry in a net zero world.	The ISA framework should consider including objectives that address the reduction of carbon emissions, as well as objectives that promote the transformation to a low carbon industrial sector.

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Net Zero Strategy: Build Back Greener	The strategy builds on the approach set out in the 10-point plan for a green industrial revolution, to keep on track for UK carbon budgets, the 2030 Nationally Determined Contribution, and net zero by 2050. It includes: ▪ the decarbonisation pathways to net zero by 2050, including illustrative scenarios; and ▪ policies and proposals to reduce emissions for each sector cross-cutting action to support the transition.	The ISA framework should consider including objectives that address the reduction of greenhouse gas emissions, as well as objectives that promote the transformation to an energy-efficient low carbon economy.
Health Impact Assessment in Strategic Environmental Assessment (2001)	This is a review of Health Impact Assessment concepts, methods and practices to support the development of a protocol on Strategic Environmental Assessment which adequately covers health impacts. It discusses how decisions taken outside of the health sector can affect the health of individuals and populations by modifying their physical and social environment, and how this in turn affects social and economic development. It describes methods, procedures and practices to carry out health impact assessments of policies, plans and projects, highlighting the similarities with and opportunities for integrating health impact assessment within strategic environmental assessments, and other forms of impact assessment under use. It also draws attention to the opportunities for achieving health benefits and avoiding health costs by considering health impacts early in the planning process. It is aimed at inspiring policy makers to include health considerations early in their planning process by showing how different perspectives can feasibly be incorporated into everyday decisions.	The ISA framework needs to consider health impacts and needs to note all elements of this document.
A Children's Environment and Health Strategy for the United Kingdom (2009)	This document provides an overview of current activities in the UK. Following a public consultation process, recommendations will be made on the measures necessary to improve children's and young people's environmental health in the UK as well as encouraging a coherent cross-government approach. This strategy aims to build on and complement policies and activities already undertaken by government departments, devolved administrations, local and regional authorities and the National Health Service (NHS). Some areas for improvement highlighted in this strategy include: ▪ counteracting the increased number of overweight and obese children and young adults, coupled with improving the amount of physical activity they undertake; and ▪ addressing concerns regarding the number of children whose asthma is affected by air pollution and the effects of air pollution on the long-term lung function of children.	The ISA framework needs to consider all vulnerable groups, including children.
Inclusive Transport Strategy 2018	The DfT's Inclusive Transport Strategy outlines the Government's plans to achieve equal access for disabled people across the transport network. The strategy details work already undertaken and sets out rights for disabled travellers	No implications. Informative only.

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	going forwards, as well as efforts that will be made to raise awareness of issued surrounding physical access, access to information, and training for staff on the transport network. The primary ambition listed is for "disabled people to have the same access to transport as everyone else, and to be able to travel confidently, easily, and without extra cost." This is framed by the target to achieve equal access by 2030, with assistance where physical infrastructure remains a barrier. The strategy also puts forward various funding streams and updated to guidance with the intention of upgrading physical infrastructure across the country, and monitoring programmes to track delivery of the strategy.	
A connected society – A strategy for tackling loneliness, 2018	This strategy notes the importance on local transport links and infrastructure in supporting social networks and facilitating interaction, key elements in combating loneliness.	No implications. Informative only.
Protection of Military Remains Act 1986	The Protection of Military Remains Act 1986 prohibits entering and tampering with wrecked military vessels or aircraft. All military aircraft is automatically protected under this legislation, but vessels need to be designated individually. The Act enabled the government to establish controlled sites around wrecks in UK water or protected places for those in international water. The legislation is administered by the Ministry of Defence.	Ensure historic environment objective within ISA framework.
The Protection of Wrecks Act 1973	The Protection of Wrecks Act 1973 allows the Government to designate a restricted area around the site of a vessel lying on or in the seabed in UK territorial waters if they are satisfied that, on account of the historical, archaeological or artistic importance of the vessel, or its contents or former contents, the site ought to be protected from unauthorised interference. More information on Marine Heritage can be viewed on the DAERA Marine Mapviewer: https://gis.daera-ni.gov.uk/arcgis/apps/webappviewer/index.html?id=e44a8e27333241bfa2faf4a387fd99d7	Ensure historic environment objective within ISA framework.
Planning (Listed Buildings and Conservation Areas) Act 1990	Governs special controls in respect of buildings and areas of special architectural or historic interest. Any alteration, extension or demolition of a listed building in a way that affects its character as a building of special interest requires Listed Building Consent.	Ensure protection of listed buildings within ISA framework.
Ancient Monuments and Archaeological Areas Act 1979	Under the Act a monument which has been scheduled is protected against any disturbance including unlicensed metal detecting. Permission must be obtained for any work which might affect a monument above or below ground. Historic England gives advice to the Government on each application. In assessing an application, the Secretary of State will try to ensure any works on protected sites are beneficial to the site or are essential for its long-term sustainability.	Ensure protection of ancient monuments and archaeological areas within ISA framework.
Government Heritage Statement 2017	This heritage statement sets out how the government will support the heritage sector and help it to protect and care for our heritage and historic environment in the coming years, in order to maximise the economic and social impact of heritage and to ensure that everyone can enjoy and benefit from it.	Ensure historic environment objective within ISA framework.

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
Historic Monuments and Archaeological Objects (NI) Order 1995	This order is a legislative framework which allows for Monuments to be protected by taking them into State Care or by Scheduling, and also places restrictions on searching for archaeological material. Scheduled Monument Consent from the Department of Communities is required for any changes to a Scheduled Historic Monument. This includes any works resulting in the demolition, destruction, or disturbance of, or any damage to a scheduled monument.	Ensure historic environment objective within ISA framework.
Enterprise and Regulatory Reform Act 2013	Given Royal Assent in April 2013, this legislation includes four heritage protection reforms aimed at improving efficiency without affecting protection. Some of them were promoted in the draft Heritage Protection Bill in 2008 that failed to enter Parliament through lack of time. They were also recommendations of the Penfold Review of non-planning consents.	The ISA framework should consider including objectives relating to the protection of the historic environment. It should also be assessed how new infrastructure would avoid adverse impacts on cultural heritage features and resources.
Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007	This Air Quality Strategy sets out air quality objectives and policy options to further improve air quality in the UK from today into the long term. As well as direct benefits to public health, these options are intended to provide important benefits to quality of life and help to protect our environment.	Ensure the inclusion of an air quality objective within the ISA framework
Air Quality Standards Regulations 2010 as amended by The Air Quality (Amendment of Domestic Regulations) (EU Exit) Regulations 2019	These regulations set legally binding limits for concentrations in outdoor air of major air pollutants that impact public health such as particulate matter (PM10 and PM2.5) and nitrogen dioxide (NO2). As well as having direct effects, these pollutants can combine in the atmosphere to form ozone, a harmful air pollutant (and potent greenhouse gas) which can be transported great distances by weather systems. It also incorporates the 4th air quality daughter directive that sets targets for levels in outdoor air of certain toxic heavy metals and polycyclic aromatic hydrocarbons.	Ensure the inclusion of an air quality objective within the ISA framework.
Clean Air Strategy, 2019	The Clean Air Strategy explains how the UK Government will tackle all sources of air pollution, sets out policy direction, and outlines measures that will drive the move to zero emission transport modes. The strategy links into other national level policies, outlining the same targets and strategies across multiple documents. The strategy includes numerous aims and goals, many drawn from other policy documents, that are collated in brief in the executive summary. These are framed in the following topics: ▪ protecting the nation's health; ▪ protecting the environment;	Ensure the inclusion of an air quality objective within the ISA framework.

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	▪ securing clean growth and innovation; ▪ action to reduce emissions from transport; ▪ action to reduce emissions at home; ▪ action to reduce emissions from farming; ▪ action to reduce emissions from industry; and ▪ leadership at all levels. The Clean Air Strategy effectively summarises government policy with an impact on air quality from multiple different areas. Multiple government initiatives are listed where action has been taken by central government. Of particular importance, and reinforced by the Clean Air Strategy, is the adoption of challenging and enforceable local Air Quality Strategies.	
Air Quality Plan for Nitrogen Dioxide in the UK, 2017	Jointly produced by the DfT and DEFRA, this national plan determines an approach for areas with the worst levels of traffic-related air pollution to mitigate the effects. It sets out the framework for Clean Air Zones, allowing for targeted action to improve air quality in the "shortest possible time" as required by legal obligations to meet NO2 concentration thresholds. The document also sets out plans for ending the sale of new, conventional petrol and diesel cars and vans by 2040. The plan argues that NO2 accumulation is a local issue, as the pollutants do not disperse widely like greenhouse gasses. In line with this local approach, the plan sets out support to local authorities, including: ▪ setting up a £255 million Implementation Fund; ▪ establishing a Clean Air Fund; and ▪ providing £100m for retrofitting and new low emission buses. The plan outlines the introduction of several new funding streams that local authorities can utilise to finance measures to reduce NO2 emissions.	Ensure the inclusion of an air quality objective within the ISA framework.
Carbon Plan: Delivering our low carbon future 2011	This plan sets out how the UK will achieve decarbonisation within the framework of energy policy: to make the transition to a low carbon economy while maintaining energy security, and minimising costs to consumers, particularly those in poorer households. It outlines the progress so far in terms of emissions as well the future vision in order to cut emissions by 80% by 2050.	Ensure that reduction of Carbon, with a particular emphasis on road transport is included as an Objective within the ISA framework. Ensure that the prudent use of natural resources (including energy) is included as

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
		an Objective within the ISA framework.
The Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017	These regulations transpose the water framework directive, to provide for the monitoring, assessment and improvement of the condition of waterbodies in order to meet the objectives of the Water Framework Directive.	The ISA framework should consider including objectives which seek to reduce impacts to the water environment.
Water Resources Act 1991	This Act aims to prevent and minimise pollution of water. The policing of this act is the responsibility of the Environment Agency and Natural Resources Wales. Under the act it is an offence to cause or knowingly permit any poisonous, noxious or polluting material, or any solid waste to enter any controlled water. Silt and soil from eroded areas are included in the definition of polluting material. If eroded soil is found to be polluting a water body or watercourse, the Environment Agency may prevent or clear up the pollution, and recover the damages from the landowner or responsible person.	The ISA framework should consider including objectives which seek to reduce impacts to the water environment.
UK Peatland Strategy 2018	The UK Peatland Strategy aims to drive and co-ordinate action across the UK, supported by country level plans that will establish a course for peatland conservation and management at a more detailed level. This strategy recognises there are different peatlands and types of pressures within the UK and seeks to provide common goals across the four devolved administrations of England, Northern Ireland, Scotland and Wales. The Strategy has the 2040 vision of 'Our peatlands are protected, enhanced, sustainably managed and are recognised for their intrinsic value and the public benefits they provide' and the 2040 target of 'Two million hectares of peatland in good condition, under restoration or being sustainably managed by 2040'.	The ISA framework should consider including objectives which seek to protect and reduce the impacts to peatlands.
The Draft NI Peatland Policy	The aim of this strategy is to provide a framework for both conserving intact peatlands and the peatland restoration programme. The vision of the strategy is to protect, enhance and manage sustainably peatland habitats, which are recognised for their intrinsic value and of the benefits they provide – for wildlife, people and climate. It sets out five strategic objectives and 24 supporting actions: ▪ Peatland Conservation, Restoration & Management; ▪ Peatland Policies; ▪ Capacity Building & Research; ▪ Knowledge Sharing, Communication & Access; and ▪ Governance, Implementation & Funding.	The ISA framework should consider including objectives which seek to reduce the impacts to peatlands.
Flood Risk Management Plans	The flood risk management plans highlight the flood hazards and risks in the 20 most significant flood risk areas in Northern Ireland from flooding from rivers, the sea, surface water and reservoirs. The plans identify the measures	Ensure that flood and coastal erosion risk is

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	that will be undertaken over the next six years and they set out how the relevant authorities will work together and with communities to reduce the flood risks. FRMPs are a requirement of the Water Environment (Floods Directive) Regulations (Northern Ireland) 2009.	included as an objective within the ISA framework.
River Basin Management Plans	River Basin Management Plans are published for each River Basin District within Northern Ireland. The identify where the water environment is in good or excellent condition and set out objectives for improvement or prevention of deterioration. As required by the regulations, the Plans are to be reviewed and updated every 6 years. River Basin Management is a key element in implementing the Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017, taking an integrated approach to the protection, improvement and sustainable use of the water environment. It applies to groundwater and to all surface water bodies, including rivers, lakes, transitional (estuarine) and coastal waters out to one nautical mile. In 2015 the second set of Plans were published.	The ISA framework should include objectives for the improvement of water quality. The plans set out objectives to do this.
Irish River Basin Management Plan 2022 - 2027	This plan, which is part of the Water Action Plan 2024, sets out the measures that are necessary to protect and restore water quality in Ireland. The overall aim of the plan is to ensure that natural waters are sustainably managed and that freshwater resources are protected to maintain and improve Ireland's water environment. The objectives for the plans include: ▪ to prevent the deterioration of water bodies and to protect, enhance and restore them with the aim of achieving at least good status; and ▪ to achieve compliance with the water standards and objectives for designated protected areas.	The ISA framework should include objectives for the improvement of water quality. The plan sets out priorities to do this.
Drainage (Environmental Impact Assessment) Regulations (Northern Ireland) 2017	These regulations transpose European Council Directive 2014/52/EU dealing with the assessment of effects of certain public and private projects on the environment, in respect of certain drainage works and drainage schemes.	The ISA framework should consider including objectives which seek to reduce impacts to the water environment.
Fisheries Act 2020	The Fisheries Act will enable the UK to control who fishes in their waters through a new foreign vessel licencing regime and ends the current automatic rights for EU vessels to fish in UK waters. Underpinning the Act is a commitment to sustainability, ensuring that fish and aquaculture activities are environmentally sustainable in the long term. The UK Government and Devolved Administrations are required to develop new fisheries management plans for managing fisheries to benefit the fishing industry and the marine environment.	The ISA framework should give particular regard to sustainable management of fisheries. Such development has the potential to cause detriment to the quality of marine habitat during

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
		construction, operation and decommissioning phases.
Resource Security Action Plan 2012	This document was developed in response to private sector concerns about the availability of some raw materials. It details how the government recognises these issues, provides a framework for business action to address resource risks, and sets out a high-level actions to build on the developing partnership between government and businesses to address resource concerns.	Ensure that waste minimisation and resource efficiency are included as an Objective within the ISA framework.
Northern Ireland Regional Seascape Character Assessment 2014	The aim of this study was to provide a strategic understanding of different areas of regional seascape character along the entire Northern Ireland coast, to contribute to the aims of the European Landscape Convention through promoting the protection, management and planning of the seascape, and to support European cooperation on landscape issues. The objectives of the study were to: ▪ Identify and map the different regional seascape character areas; ▪ Describe the key features and characteristics of each seascape character area; and ▪ Relate the description of each seascape character area to its neighbouring terrestrial landscape character areas (as described in the Northern Ireland Landscape Character Assessment, 2000) and take account of boundaries identified in relation to neighbouring seascape areas for the British and Irish coastline. ▪ The description and mapping of regional seascape character can provide practical tools and evidence to assist in responding to the increasing demands being placed upon the related marine and terrestrial environments. Data relating to coastal geomorphology can be viewed on the DAERA NI Coastal Maps: https://experience.arcgis.com/experience/b8454f3d62164518817e4c581b5555c8/page/Map-Viewers/	Ensure that the seascape character of effected coastline is considered within the ISA framework.
The Marine Strategy Regulations 2010	These regulations establish a high-level legal framework that ensure all obligations which the Marine Strategy Framework Directive (2008/56/EC) placed on the UK are assigned to a competent authority, and ensures they are given the necessary powers to carry out their roles. The Directive requires the UK to take necessary measures to achieve or maintain a good environmental status in the marine environment by 2020.	Elements of infrastructure will likely be situated in coastal areas and the regulations are therefore of relevance

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
		to the planning process. The ISA framework should establish objectives which align with the obligations to maintain the good environmental status of the marine and coastal environment.
Marine Strategy Part One: UK updated assessment and Good Environmental Status	This report reflects on the progress towards achieving Good Environmental Status (GES) within the UK, and includes updated objectives and targets which will be used to define and determine progress towards GES over the next 6 years. The updated objectives cover a range of species and environmental issues including eutrophication, contaminants, marine litter and underwater noise.	Ensure consideration of environmental impacts to marine environments affected by the project within the ISA framework.
Marine Strategy Part Two: UK updated monitoring programmes (2022)	This report sets out the proposed monitoring programmes to use to provide the evidence to support the 2024 assessment of progress towards achieving GES within the UK Marine Strategy area as required by legislation.	The ISA framework should consider the obligations to maintain the good environmental status of the marine and coastal environment.
UK Marine Strategy Part Three: Programme of Measures	This document sets out the UK's programme of measures that will help to achieve or maintain Good Environmental Status (GES) as defined in the UK's Marine Strategy Part One. It provides summaries of the measures for each of the 11 Descriptors of GES including the current status, agreed targets and indicators, proposed approach for the Descriptor, proposed measures, the degree of coordination with other countries and how the measures could impact on the waters of neighbouring Member States, the contribution of the proposed measures towards the achievement of GES and the related environmental targets by 2020, details of whether any exceptions apply and gaps and issues relating to each Descriptor. This part of the marine strategy was published in 2015 and is undergoing consultation to set out proposals to update this.	Measures to achieve or maintain GES should be considered in objectives relating to the marine and coastal environment within the ISA framework.
Marine and Coastal Access Act 2009	The Act introduces a new system of marine management. This includes a new marine planning system, which makes provision for a statement of the Government's general policies, and the general policies of each of the	Elements of infrastructure will likely be situated in coastal

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	devolved administrations, for the marine environment, and also for marine plans which will set out in more detail what is to happen in the different parts of the areas to which they relate. Key areas of the Act include: ▪ Sets up a new Marine Management Organisation under which many of the existing, diverse areas of marine regulation would be centralised; ▪ streamlines the existing marine licensing system and provides powers to create a joined-up marine planning policy; ▪ introduces new measures to reform fisheries management; ▪ provides a framework for establishing marine conservation zones; and ▪ enables the creation of a walkable route around the English and Welsh coast.	areas and the Act is therefore of relevance to the planning process. The ISA framework should establish objectives which align with the aims of the Act and protect the marine and coastal environment.
Integrated Coastal Zone Management Strategy for Northern Ireland 2006-2026	This strategy sets out long-term objectives for achieving sustainable coastal management in Northern Ireland, through improvements to existing management systems, the development of new management systems and identifying and dealing with potential areas of conflict. It aims to establish sustainable levels of economic and social activity in our coastal areas while protecting the coastal environment.	Elements of infrastructure will likely be situated in coastal areas. The ISA framework should establish objectives which align with the aims of the strategy and protect the marine and coastal environment.
Draft Marine Plan for Northern Ireland (2018)	The Marine Plan combines the plans for both the inshore and offshore regions into one document, contributing to the delivery of national and regional policy objectives. It will continue to evolve as the effectiveness of its policies are monitored and reviewed and the evidence base develops. The vision for the Marine plan is 'A healthy marine area which is managed sustainably for the economic, environmental and social prosperity of present and future generations.' The objectives of this plan are as follows: ▪ To promote the sustainable development of productive activities, which support employment at all skill levels while fully considering the requirements of other marine interests; ▪ To help realise the potential of energy resources and energy storage within the marine area, while fully considering the requirements of other marine interests; ▪ To promote the development of vibrant, accessible and sustainable coastal communities;	Ensure that the socio-economic and environmental factors within the water environment are considered during the planning process. The ISA framework should establish objectives which align with the Plan objectives.

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	▪ To promote the marine resource, its recreational value and its wider economic, environmental and social benefits to all; ▪ To promote the preservation and enjoyment of marine related heritage assets ▪ To promote a healthy, resilient and adaptable marine ecosystem and an ecologically coherent network of Marine Protected Areas; ▪ To contribute towards climate change mitigation and adaptation measures; and ▪ To continue to develop a sound marine evidence base in a co-ordinated manner, to increase understanding and to support the development, monitoring and review of marine plans.	
Northern Ireland Marine Protected Areas (MPAs) Strategy Review 2025	A review of the NI Marine Protected Areas Strategy occurred which was first published in 2014 and consultation on the Marine Protected Areas Strategy for the Northern Ireland Inshore Area 2024-2030 occurred in 2024. The first MPA Strategy set out what action the Department intended to take by 2020 to contribute to the delivery of an ecologically coherent MPA network in the North East Atlantic. The review seeks to maximise co-benefits that a well-managed MPA network can provide, such as improved wider biodiversity and protected nursery grounds for commercial fish species, and societal benefits, including improved water quality and opportunities for recreation, eco-tourism, improved health and increased ocean literacy.	The ISA should consider objectives which focus on the protection of the marine environment.
Northern Ireland Blue Carbon Action Plan Review 2025	The development of the Blue Carbon Action Plan took place in tandem with a review of the Marine Protected Areas (MPA) Strategy for the Northern Ireland inshore region (within 12 nautical miles of the coast). The concurrent review of the 2014 MPA Strategy offered a timely opportunity to consider the protection and restoration of blue carbon habitats within the existing MPA network, where appropriate. The Blue Carbon Action Plan for Northern reflects the need to embed nature-based projects in plans and policies to meet the Net Zero target.	The ISA should consider objectives which focus on the protection of the marine environment and climate.
Marine Act (Northern Ireland) 2013	This Act provides marine plans in relation to the Northern Ireland inshore region, to provide for marine conservation zones within this region and to make further provision in relation to marine licensing for certain electricity works in that region. It promotes the Uks aim of establishing an ecologically coherent network of Marine Protected Areas, so that marine biodiversity is protected, and international and European commitments are met.	Ensure that the biodiversity and the water environment are considered within the ISA objectives.
UK Marine Policy Statement 2011	This Marine Policy Statement (MPS) is the framework for preparing Marine Plans and taking decisions affecting the marine environment. It facilitates and supports the formulation of Marine plans, ensuring that marine resources are used in a sustainable way in line with the high level marine objectives: 1. Achieving a sustainable marine economy 2. Ensuring a strong, healthy and just society 3. Living within environmental limits	Ensure that the water environment is considered within the ISA objectives.

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	4. Promoting good governance 5. Using sound science responsibly The UK vision for the marine environment is for 'clean, healthy, safe, productive and biologically diverse oceans and seas', which the objectives set out broad outcomes to achieve.	
The Waterways (Environmental Impact Assessment) Regulations (Northern Ireland) 2019	These regulations implement the requirements of the Council Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment, in respect of canal schemes and certain marina works.	Ensure an objective covering water quality of waterways is considered within the ISA framework.
The Floods and Water (Amendment etc.) (EU Exit) Regulations 2019	The Regulations ensure that the existing floods and water regime will continue to operate effectively following the UK's exit from the European Union.	Ensure an objective covering flooding is considered within the ISA framework.
Enabling the Transition to a Green Economy: Government and business working together (HM Government, 2011)	This report outlines the Government's vision for the future green economy where value and growth are maximized across the whole economy and natural assets are exploited sustainably. Moreover, the report sets out a range of commitments for developing the green economy, the main objectives of which include: ▪ Developing a green policy framework. ▪ Promote the UK as a global leader in green exports and encourage green inward investment. ▪ Provide accessible advice and support for businesses. ▪ Ensure the skills system responds to the demand for skills. ▪ Support the development of greener products, services, and technologies. ▪ Encourage investment in infrastructure and ensure that infrastructure supports the green economy. ▪ Build UK-based supply chains. ▪ Procure products that meet cost-effective sustainability standards. ▪ Help businesses understand the value of and their impact on the natural environment	The ISA framework should consider including objectives that promote the development of resource efficiency. Objectives that encourage protection of the natural environment are also important. Note this report has been effectively replaced by the 'Ten Point Plan'.
DfT Outcome Delivery Plan: 2020-2021	The DfT Outcome Delivery Plan: 2020-2021 provides a summary of the DfT's objectives and its plans to achieve them, specifically following the COVID-19 pandemic. Increasing the efficient delivery of major programmes is fundamental to supporting job creation, driving economic growth and recovery from COVID-19. This delivery plan sets out in detail how we will continue to deliver the priority outcomes, measure our success, and ensure we continuously improve:	Note made of primary topic to make transport safe, secure and sustainable

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	▪ Improve connectivity across the UK and grow the economy by enhancing the transport network, on time and on budget. ▪ Build confidence in the transport network as the country recovers from COVID-19 and improve transport users' experience, ensuring that the network is safe, reliable, and inclusive. ▪ Tackle climate change and improve air quality by decarbonising transport (this outcome reflects DfT's contribution to the BEIS-led cross-cutting net zero outcome).	
UK Sustainable Development Strategy 2005	This strategy has four broad objectives: ▪ Sustainable consumption and production – working towards achieving more with less. ▪ Natural resource protection and environmental enhancement. ▪ From local to global, building sustainable communities. ▪ Climate change and energy. Our landscapes and seascapes are inseparable from our culture, bearing the imprints of generations of land use. Our physical and mental health is reliant on the quality of the environment. There must also be access to a variety of well-managed and maintained green spaces for leisure, sport, recreation and general public benefit to help people choose healthy lifestyles, in urban as well as rural areas.	Ensure the ISA framework considers the full range of sustainability issues.
The Path to Net Zero Energy: Secure, Affordable, Clean 2021	The aim of the strategy is to ensure that energy in Northern Ireland is secure, affordable and clean now and in future. The strategy sets the following three targets: ▪ Deliver energy efficiency savings of 25% from buildings and industry by 2030. ▪ Meet at least 70% of electricity consumption from a diverse mix of renewable sources by 2030. ▪ Double the size of Northern Ireland's low carbon and renewable energy economy to a turnover of more than £2B by 2030. The strategy centres around five key principles: ▪ Placing people at the heart of energy future ▪ Grow the green economy ▪ Do more with less ▪ Replace fossil fuels with renewable energy ▪ Create a flexible, resilient and integrated energy system	The ISA should consider energy efficiency within the framework.
UK Shared Framework for Sustainable Development;	This framework document sets out the common goals and challenges of the UK Government and devolved administrations of Scotland, Wales and Northern Ireland. Each devolved administration will have its own strategy document, but the framework demonstrates the commitment to work together on shared goals and challenges This	Ensure the ISA framework considers the full range of sustainability issues.

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One Future – Different Paths 2005	framework document sets out what those are and is an affirmation that the whole of the UK will work to common goals without compromising the strengths which our diversity of approach offers.	
National Infrastructure Plan (2014)	The National Infrastructure Plan (NIP) 2014 presents an overview of the government's policies, investments and record on infrastructure delivery since 2010. The document identifies that over 2,500 different projects or schemes have been delivered in this Parliament. It also details the government's approach to ensuring that the Top 40 priority investments remain on track to deliver, as well as providing the latest detail on the timing, funding and status of each of them. The plan consolidates and builds on the progress already made by providing the clarity and visibility that industry, the supply chain and investors need going forwards. In addition to the pipeline, the document provides information on the government's ongoing work to improve the planning, performance and delivery of infrastructure and addresses longer term challenges, for example by incorporating analysis of the financing requirements for our infrastructure.	The ISA framework needs to consider potential for cumulative effects with other developments.
The Agriculture Act 2020	The Agriculture Act underpins a new agricultural system based on the principle of public money for public goods. It includes the following: ▪ Powers to give financial assistance. Payments may encompass (but are not limited to) environmental protection, public access to the countryside and measures to safeguard livestock and plants. Provisions requiring the Secretary of State to report to Parliament on whether, or to what extent, provisions in free trade agreements (FTAs) that relate to agricultural products are consistent with the maintenance of UK statutory levels of protection in relation to human, animal and plant life or health; animal welfare; and the environment.	Ensure that a range of environmental objectives are considered in relation to the ISA framework.
Transport Act 2000	The aim of the Act is to give effect to the Government's strategy for an integrated transport policy set out in the White Paper "A New Deal for Transport: Better for Everyone" (Cm 3950) published in July 1998. This Act contains measures to create a more integrated transport system and provide for a public-private partnership for National Air Traffic Services Ltd ("NATS"). The Act aimed to improve quality in local passenger transport services such as helping limit traffic congestion and improving air quality as well introducing road user charges and workplace parking levies to help tackle congestion. The use of railways was promoted through the Strategic Rail Authority and makes provision for the better regulation of the railway industry.	No implications. Informative only.
Local Transport Act 2008	This act makes further provision in relation to local transport authorities, the provision and regulation of road transport services and the subsidising of passenger transport services. It looks at important areas of public transport such as local bus services and sets out proposals for a more consistent approach to local transport planning. It plans to reform the existing laws on road pricing schemes for local authorities who wish to have schemes in their areas.	No implications. Informative only.

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UK Renewable Energy Road Map 2013	The Renewable Energy Roadmap (the Roadmap) shows both strong growth in renewable electricity deployment over the last year and that the UK is on track to meet the first interim target on the way to the ambitious target of 15% renewable energy consumption by 2020. The 2012 update sets out the progress and changes delivered in the sector over the past year and set out the challenges and actions for the year ahead. In 2011, renewable energy accounted for 3.8% of energy consumption, up from 3.2% in 2010. The Roadmap expects it to increase to over 4% in line with the first interim target on the way to 2020. The 2013 update provides analysis on further achievements and changes that have taken place in 2013.	Note that this Road map, while not directly replaced has effectively been replaced by the 'Ten Point Plan'.
Localism Act 2011	The Act aims to shift power from central government to the hands of individuals, communities and councils. Moreover, the Act aims to push power downwards and outwards to the lowest possible level, including individuals, neighbourhoods, professionals and communities as well as local councils and other local institutions. The Localism Act includes five key measures that underpin the Government's approach to decentralisation: ▪ Community rights: which ensure that community organisations have a fair chance to bid to take over land. ▪ and buildings that are important to them. ▪ Neighbourhood planning: new rights will allow local communities to shape new development by coming together to prepare neighbourhood plans. ▪ Housing: councils will get a higher flexibility to manage their housing stock for meeting local demand. ▪ General power of competence: local authorities will have the legal capacity to do anything an individual could do that isn't specifically prohibited. ▪ Empowering cities and other local areas: public functions will be transferred to local authorities in order to improve local accountability or to promote economic growth.	The Act is of relevance to the planning process for transport development. Therefore, the ISA framework should seek to include objectives in alignment with the aims of the Act.
Northern Area Plan 2016	The Northern Area Plan 2016 is the development plan for the four legacy Council Areas of Ballymoney, Coleraine, Limavady and Moyle, which becomes the local development plan for the Council area until the Council adopts its own Local Development Plan. The purpose of this plan is to inform the general public, statutory authorities, developers and other interested parties of the policy framework and land use proposals that will be used to guide development decisions within the Plan area over the period of the Plan. The aim of the Plan is to provide a framework for development throughout the Northern Plan area, in general conformity with the principles and policies of the Regional Development Strategy, facilitating sustainable growth, meeting the needs of communities and protecting environmental attributes.	Ensure the ISA framework considers the ETPs capacity to support Local Development Plans / Area Plans and development in the wider area
	The objective of the planning system, consistent with Part 1, Section 1 of the Planning Act (Northern Ireland) 2011, is to secure the orderly and consistent development of land whilst furthering sustainable development and	Ensure the ISA framework considers the ETPs capacity to

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The Strategic Planning Policy Statement (SPPS) for Northern Ireland	improving well-being. This means the planning system should positively and proactively facilitate development that contributes to a more socially economically and environmentally sustainable Northern Ireland. The planning system sets out the following core planning principles: ▪ Improving Health and Well-being ▪ Creating and Enhancing Shared Space ▪ Supporting Sustainable Economic Growth ▪ Supporting Good Design and Positive Place Making ▪ Preserving and Improving the Built and Natural Environment Within this planning system are a set of Planning Policy Statements (PPS) covering a variety of areas, to be implemented within and replaced by LDPs when adopted: ▪ PPS 2: Natural Heritage ▪ PPS 3: Access, Movement and Parking (and Clarification) ▪ PPS 4: Planning and Economic Development ▪ PPS 6: Planning, Archaeology and The Built Heritage ▪ PPS 6 (Addendum): Areas of Townscape Character ▪ PPS 7: Quality Residential Environments ▪ PPS 7: (Addendum): Safeguarding the Character of Established Residential Areas ▪ PPS 8: Open Space, Sport and Outdoor Recreation ▪ PPS 13: Transportation and Land Use ▪ PPS 15 Revised: Planning and Flood Risk ▪ PPS 16: Tourism ▪ PPS 21: Sustainable Development in the Countryside ▪ PPS 23: Enabling Development	support strategic development.
	The Natural Heritage planning policy statement (PPS2) sets out the department of the Environment's planning policies for the conservation, protection and enhancement of Northern Ireland's natural heritage. It sets out the following objectives: ▪ to seek to conserve, enhance and restore the abundance, quality, diversity and distinctiveness of the region's natural heritage; ▪ to promote sustainable development; and	Ensure the ISA framework considers the ETPs capacity to support strategic development regarding natural heritage.

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	▪ to assist in meeting international, European, national and local responsibilities and obligations for natural heritage.	
NI Executive Sustainable Development Strategy (2010)	The aim of this strategy is to build a future characterised by economic prosperity, equality and social cohesion; strong, confident communities and a high-quality environment. The method will use the following six guiding principles, the first two highlighting the overreaching ambitions of the Strategy: ▪ Living within Environmental Limits ▪ Ensuring a Strong, Healthy, Just and Equal Society ▪ Achieving a Sustainable Economy ▪ Promoting Good Governance ▪ Using Sound Science Responsibly ▪ Promoting Opportunity and Innovation	Ensure the ISA framework considers the full range of sustainability issues.
Planning Act (NI) 2011	The overall aim of this Act is to create a planning system which is quicker, clearer and more accessible and with resources better matched to priorities. The reforms within the Act are comprehensive, impacting how development plans are drawn up, how development proposals and applications are managed and the way in which these functions are delivered. It also gives effect to the local government reform changes which will transfer the majority of planning functions and decision-making responsibilities for local development plans, development management plus planning enforcement to councils. Part 4, Chapter 1 of this Act also focuses on planning control of Listed buildings and conservation areas. The Department are obliged to compile lists of buildings of special architectural or historic interest, and the council may designate conservation areas within their individual district.	The SPPS will set out the policy framework for infrastructure projects as described by the Act. The ISA framework is being undertaken according to the requirements of the Act, and will consider Listing of Buildings of Special Architectural & Historic Interest and for the designation of Conservation Areas.
Planning and Land Compensation Act (Northern Ireland) 1971	This Act makes provisions in relation to the acquisition of land by public authorities in certain circumstances and as to the assumption to be made in assessing compensation for the compulsory acquisition of land. It amends the Planning Acts (Northern Ireland 1944 and 1965) and makes other provisions with respect to planning matters.	No implications. Informative only.
Planning for the Future of Transport – Time of Change	Planning for the Future of Transport – Time for Change outlines how the Department's priorities for the future of transport can be supported by the improved planning, management and development of the transport networks over the next 10 to 15 years.	No implications. Informative only.

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	The document does not represent a change to existing policy but is to act as a guide illustrating how the existing policies can support sustainable transport solutions when developing transport plans for local areas, and in the prioritisation of investment across the regional network. The key policy documents remain: the Regional Development Strategy 2035, the Strategic Planning Policy Statement, and Ensuring a Sustainable Transport Future (New Approach). The key issues highlighted in this document include: ▪ At present, NI's roads (in particular, Belfast), are very congested at peak times and dominated by the private car. ▪ Private car used for short journeys. ▪ NI rail network is limited. ▪ 17 areas in NI have been declared as Air Quality Management Areas (AQMAs) as a result of high concentrations of Nitrogen Dioxide (NO2). ▪ CO2 emissions have risen here for a third consecutive year ▪ 71% of trips made by private car. ▪ The document identified the failing of current approaches, that they work against change and can undervalue the benefits of walking and cycling schemes. Current challenges were highlighted: ▪ The planning system and Local development planning generating low density uses resulting in greater car use and dependency, ▪ The domination of cars both moving and parked, and street layouts unable to maintain the essential social or 'place' function. ▪ Inadequate provision for active travel and limited weight given to public transport in new developments Key aims to address these issues include: ▪ New, healthier ways of going about life post COVID – Working from home, spending more time outdoors ▪ Reducing NI's carbon output from transport ▪ Transport will contribute towards social, environmental and economic improvements so that; ▫ Businesses can have fast, reliable journey times, ▫ More destinations available for commuters via walking, bicycle or public transport ▫ Town centres and public transport vehicles are designed to highest accessibility standards ▫ People in rural areas have access to Electric Vehicle charging infrastructure and park and ride services ▫ Air quality in town and cities improved ▫ Communities and high streets reimagined	

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	▫ Journeys made by walking and cycling to be 'socially acceptable' Key Strategy to achieve these aims: ▪ Using existing policies and emerging technologies to facilitate carbon reduction. ▪ Proactive planning and design. ▪ Integrated land use and transport planning – securing short, medium and long term changes if work starts now. ▪ Substitute Trips, Shift Modes, Switch Fuels The document calls for a new mind-set, focussing on the delivery of sustainable transport goals within the policies and prioritises change. Through: ▪ Carbon reduction ▪ Proactive planning and design ▪ Integrated land use and transport planning A key requirement is that the Department must plan to reduce travel and to effect a change in travel behaviour, away from polluting and carbon intensive modes to cleaner and more healthy modes.	
Northern Ireland Changing Gear - A Bicycle Strategy for Northern Ireland, (2015)	The document identifies a number of objectives which have been set to guide the delivery of the bicycle strategy. These are: ▪ Making urban areas in Northern Ireland more accessible for people using the bicycle – improvements to cycling infrastructure will enable more people to access facilities in our urban centres by bicycle or by multi modal journeys. ▪ Improve opportunities for social interaction – 22% of households in Northern Ireland do not have access to a car/van. Improved cycling infrastructure enhances the travel opportunities for those who don't have access to a car/van. Perhaps more importantly, cycling is a social form of transport. It allows people to interact and engage with their surroundings, their community and their neighbours. This can help build a sense of community and contribute to personal wellbeing and social inclusion. ▪ Improvements in public health – increased levels of bicycle use have both direct (personal fitness) and indirect (improvements to air quality) benefits for public health. ▪ Increase safety for people using the bicycle – this includes reducing the proportion involved in collisions and increasing the 'feel safe' factor for people riding a bicycle	No implications. Informative only.

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	The Bicycle Strategy outlines a 3 Pillar Approach, based around Build (infrastructure, design, cycle parking and safety), Support (education and training, safety and security, legibility and mapping), and Promote (respect and understanding, marketing and flagship events and schemes).	
Exercise Explore Enjoy: A Strategic Plan for Greenways (2016)	The documents provide a vison for "A region where people have ready access to a safe traffic free environment for health, active travel and leisure". The strategy sets out the plans for a network of greenways, connecting towns and cities to the villages and countryside from east to west and north to south across all eleven councils. The document identifies 3 classifications of greenway routes that should be explored; ▪ Primary Greenway Network – to provide long distance connectivity; ▪ Secondary Greenway Network – to provide wider access to greenways; and, ▪ Community Paths – to provide doorstep opportunities to connect local communities to their local green space and neighbouring communities.	No implications. Informative only.
Northern Ireland Road Safety Strategy 2011-2020	Northern Ireland's Road Safety Strategy to 2020 outlines the key challenges to be addressed over its life. It highlights the main evidence, statistical analysis and research carried out and the consultation conducted to inform the Strategy. Its main targets are for reducing the number of people killed or seriously injured in road collision, and it recognises that increasing public transport's mode share is key to achieving these.	No implications. Informative only.
Clean Air Strategy for Northern Ireland – A Public Discussion Document (2020)	Efficient transport movements are vital to our economy and way of life, and yet road transport is one of our most significant sources of air pollution. This is reflected in the NICS Outcomes Delivery Plan indicator on air quality, which is based on levels of nitrogen dioxide at monitoring stations across Northern Ireland. While road transport is responsible for a range of pollutant emissions, those of greatest concern are in particular nitrogen oxides and particulate matter. High concentrations of nitrogen dioxide monitored at ground level in our towns and cities are largely due to vehicle exhaust emissions. The document outlines a number of measures which can be used to improve air quality. These consist of: ▪ Local Measures in Belfast: Belfast Rapid Transit, Belfast Transport Hub, Urban car parking restrictions, Belfast Multi-Modal Transport Model, Bicycle Strategy for NI, Ecar NI Ultra Low Emission Vehicles, Park & Ride, York Street Interchange, Fleet Improvements, Public Bike Hire Scheme ▪ Modal Shift – Public Transport: New Trains, Glider, integrated account based ticketing, real time passenger information, full integration of public transport journeys and fares ▪ Modal Shift – Cycling: BUILD a comprehensive network for the bicycle, SUPPORT people who choose to travel by bicycle and PROMOTE the bicycle as a mode of transport for everyday journeys	Ensure the inclusion of an air quality objective within the ISA framework.

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
Transport Assessment – Guidelines for Development Proposals in Northern Ireland (2006)	These guidelines define a Transport Assessment as a "comprehensive and consistent review of all the potential transport impacts of a proposed development or redevelopment, with an agreed plan to reduce any adverse consequences". They set outs a three staged process: ▪ Assessment of Travel Characteristics; ▪ Measures to influence travel to the site; and ▪ Assessment of Impacts.	The ISA framework should consider the range of potential transport impacts in development of Objectives and decision aiding questions.
Guidelines for Traffic Impact Assessments (1994)	The guidance document was published by the Chartered Institute for Highways and Transportation in 1994. The 2006 TA Guidelines outlined above reference these guidelines with regards to the treatment of traffic impacts associated with development proposals.	The ISA framework should consider the range of potential transport impacts in development of Objectives and decision aiding questions.
Development Control Advice Note 15	The purpose of this advice note is to give general guidelines to intending developers, their professional advisors and agents on the standards for vehicular access.	No implications. Informative only.
Sustainable Rail Blueprint	The Blueprint sets out 11 sustainable rail topics, across emissions, natural environment and social sustainability. Each topic is underpinned by a flagship goal, strategic aims and a routemap, which fully define what the industry needs to achieve. ▪ Emissions ▫ Net Zero Carbon Rail - A railway that's central to delivering a net zero economy by 2050. ▫ Clean Air - A railway that supports a positive impact on local air quality. ▫ A Quieter Railway - A railway that manages noise and vibration to protect the health and wellbeing of its colleagues, customers and local communities. ▪ Natural Environment ▫ Prepared for a Changing Climate - A railway that's resilient to extreme weather and prepared for a changing climate. ▫ A Railway for Nature - A railway that supports a thriving natural environment, for the benefit of people and wildlife. ▫ Zero Waste - A railway that uses resources efficiently and supports a collaborative circular economy. ▫ Protect & Conserve Water - A railway that uses water sustainably and supports improved water quality.	Ensure the ISA framework considers the full range of sustainability issues in relation to rail.

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
The Environment (2021 Act) (Commencement and Saving Provision) Order (Northern Ireland) 2022	The Order was made by the Department of Agriculture, Environment and Rural Affairs (DAERA) under the Environment Act 2021 and brings into operation provisions relating to Northern Ireland devolved matters. The key elements of the order are statutory duties on DAERA to publish an Environmental Improvement Plan (EIP), issue a policy statement on environmental principles, and the extension of the remit of the Office for Environmental Protection (OEP) to include Northern Ireland.	No implications. Informative only.
Sustainability for the Future - DAERA's Plan to 2050	The Plan states that its mission is to 'promote sustainable economic growth whilst restoring and enhancing our environment for the next generation. Supported by robust science as our evidence base, we will continue to ensure the competitive development of the agri-food, fishing and forestry sectors of the Northern Ireland economy, having regard for the need of the consumers, the welfare of animals and the conservation and enhancement of the environment.' 10 goals underpin the plans Strategic Priorities: 1. Sustainable farming and food 2. Thriving, Resilient rural economies and communities 3. Healthy seas and oceans 4. Pure air, clean rivers and a resilient water supply 5. Climate change 6. Safeguarding our natural wealth 7. Resource efficiency and waste reduction 8. Protecting the health of our animals and plants 9. Health and wellbeing for all 10. Exemplar organisation	Ensure the ISA framework considers the full range of sustainability issues.
The Environment (2021 Act) (Commencement and Saving Provision) Order (Northern Ireland) 2022, DAERA	This Order brings into force a range of environmental measures, including a new legal framework for environmental governance and accountability since the UK left the EU. It was approved by the Northern Ireland Assembly on 22 February 2022. The key elements of this framework are statutory duties on DAERA to publish an Environmental Improvement Plan (EIP), issue a policy statement on environmental principles, and the extension of the remit of the Office for Environmental Protection (OEP) to include Northern Ireland.	Ensure that a range of environmental objectives are considered in relation to the ISA framework.
Defra's 25 year Environment plan (25YEP)	Along with Defra's Industrial Strategy the plan sets out their approach to safeguarding the environment and future-proofing the economy. The goals of the plan are to: 1. Clean air. 2. Clean and plentiful water.	Ensure that a range of environmental objectives are

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	3. Thriving plants and wildlife. 4. A reduced risk of harm from environmental hazards such as flooding and drought. 5. Using resources from nature more sustainably and efficiently. 6. Enhanced beauty, heritage and engagement with the natural environment. And it will also manage pressures on the environment by: ▪ Mitigating and adapting to climate change. ▪ Minimising waste. ▪ Managing exposure to chemicals. ▪ Enhancing biosecurity	considered in relation to the ISA framework.
Defra's Environmental Improvement Plan (EIP) 2023	The Plan is the first five year review of the 25 year Environment plan and sets out the plan to deliver it. The Plan uses the ten goals set out in the 25-year Environment plan and sets out progress made against these, the targets and commitments for each and the plan to continue to deliver these targets and the overarching goals. Northern Irelands Plan, which was due to be published July 2023, will set out how DAERA, and other NI departments, intend to take to improve the natural environment, including measures needed to meet its long-term and interim targets.	Ensure that a range of environmental objectives are considered in relation to the ISA framework.
The Environment (Northern Ireland) Order 2002	This is the Order places obligations on individuals and organisations to protect and manage the environment. This includes reporting environmental incidents, obtaining permits, and complying with environmental standards.	Ensure that a range of environmental objectives are considered in relation to the ISA framework.
The Planning (General Permitted Development) (Amendment) Order (Northern Ireland) 2023	The order will amend the Planning (General Permitted Development) Order (Northern Ireland) 2015. The order will apply new permitted development rights for the installation of microgeneration equipment.	No implications. Informative only.
The Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 2017	The Regulations are concerned with general rules and administrative matters regarding the environmental impact assessment of the effects of certain public and private developments. This includes: ensuring that a number of that EIA development cannot be permitted without the consideration of environmental information; set out the matters that confirm that development is EIA development; ensure that, where the proposed development also requires a Habitats Regulations Assessment, the environmental impact assessment is coordinated with that assessment.	No implications. Informative only.

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
The Climate Change (Targeted Greenhouse Gases) Order 2023	The Order makes provision in respect of emissions for the purposes of carbon reporting under the Climate Change Act 2008. Nitrogen trifluoride (NF3) is added to the scope of greenhouse gas emissions that must be captured and sets the base year for NF3 as a targeted GHG.	The ISA framework should consider an objective relating to the reduction of greenhouse gas emissions.
The Climate Change Act (Northern Ireland) 2022	The Act sets a target of an at least 100% reduction in net zero greenhouse gas emissions by 2050 for Northern Ireland compared to baseline, along with interim targets including an at least 48% reduction in net emissions by 2030.	The ISA framework should consider an objective relating to the reduction of greenhouse gas emissions.
The Third National Adaptation Programme (NAP3) and the Fourth Strategy for Climate Adaptation Reporting	The Programme sets the actions that government and others will take to adapt to the impacts of climate change in the UK. The NAP3 sets out the key actions for 2023 to 2028 and forms part of the 5-yearly cycle of requirements laid down in the Climate Change Act 2008. The NAP3 includes the strategy for the fourth round of climate adaptation reporting under the Adaptation Reporting Power.	The ISA framework should consider an objective relating to the reduction of greenhouse gas emissions.
The Invasive Alien Species (Enforcement and Permitting) Order 2019	The Invasive Alien Species (Enforcement and Permitting) Order 2019 ensures an enforcement regime is in place to enforce the Principal EU Regulation (1143/2014) in England and Wales, which is designed to prevent, minimise or mitigate the adverse impact of the introduction and spread of invasive alien species.	Ensure that biodiversity and introduction of Invasive Alien Species is considered within the ISA framework.
National Parks and Access to Countryside Act 1949	The Act established powers to declare National Nature Reserves (NNRs); to notify sites of Sites of Special Scientific Interest (SSSI's) and for local authorities to establish Local Nature Reserves (LNRs). These provisions were strengthened by the Wildlife & Countryside Act 1981. An NNR is an area which is among the best examples of a particular habitat. NNRs are of national importance. They are in many cases owned and managed by the statutory authority, (for example English Nature), but not always. An NNR, unlike an SSSI, has to be managed appropriately to retain its special status.	Ensure protection of sites designated for nature conservation at the national and local level in the ISA framework.
Natural Environment and Rural Communities Act 2006	Section 40 of the Act is amended by the Environment Act 2021 which introduced a strengthened ‘biodiversity duty’. Public authorities who operate in England must consider what they can do to conserve and enhance biodiversity in England.	Ensure that biodiversity conservation is

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	This means that, as a public authority, you must: ▪ Consider what you can do to conserve and enhance biodiversity. ▪ Agree policies and specific objectives based on your consideration. ▪ Act to deliver your policies and achieve your objectives You must meet the biodiversity duty if you are a public authority, such as a: ▪ government department or public body ▪ local authority or local planning authority ▪ statutory undertaker – a business that has public authority duties for their land and delivers something of public importance	considered within the ISA framework.
Planning Practice Guidance – Natural Environment 2019	Explains key issues in implementing policy to protect and enhance the natural environment, including local requirements covering: <u>Agricultural land, soil and brownfield land of environmental value</u> A local planning authority must consult Natural England before granting planning permission for large-scale non-agricultural development on best and most versatile land that is not in accord with the development plan. Natural England has published guidance on development on agricultural land. <u>Green infrastructure</u> Green infrastructure opportunities and requirements need to be considered at the earliest stages of development proposals, as an integral part of development and infrastructure provision, and taking into account existing natural assets and the most suitable locations and types of new provision. <u>Biodiversity, geodiversity and ecosystems</u> Development plans and planning decisions have the potential to affect biodiversity or geodiversity outside as well as inside relevant designated areas. Planning authorities and neighbourhood planning bodies can work collaboratively with other partners, including Local Nature Partnerships, to develop and deliver a strategic approach to protecting and improving the natural environment based on local priorities and evidence. Equally, they need to consider the opportunities that individual development proposals may provide to conserve and enhance biodiversity and geodiversity, and contribute to habitat connectivity in the wider area (including as part of the Nature Recovery Network). As set out in the Government's 25 Year Environment Plan, the Nature Recovery Network is an expanding and increasingly-connected network of wildlife-rich habitat across England. It comprises a core network of designated sites of importance for biodiversity and adjoining areas that function as stepping stones or wildlife corridors, areas identified for new habitat creation and up to 25 nature recovery areas for targeted action. Defra, Natural England and other government bodies are working with national and local partnerships to deliver the Network, which includes	Ensure that natural environment is addressed within the ISA framework through the inclusion of an appropriate objective.

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	support for developing maps and advice to show where actions to improve and restore habitats would be most effective. Local ecological networks can make a significant contribution to developing the Nature Recovery Network. Guidance on ecosystems services (the benefits people obtain from ecosystems, such as food, water, flood and disease control and recreation) and using an ecosystems approach is available. This guidance can, where appropriate, inform plan-making and decision-making on planning applications. Information on biodiversity and geodiversity impacts and opportunities needs to inform all stages of development (including site selection and design, pre-application consultation and the application itself). An ecological survey will be necessary in advance of a planning application if the type and location of development could have a significant impact on biodiversity and existing information is lacking or inadequate. Pre-application discussions can help to scope whether this is the case and, if so, the survey work required. Plans, and particularly those containing strategic policies, can be used to set out a suitable approach to both biodiversity and wider environmental net gain, how it will be achieved, and which areas present the best opportunities to deliver gains. Such areas could include those identified in: natural capital plans; local biodiversity opportunity or ecological network maps; local green infrastructure strategies; strategic flood risk assessments; water cycle studies; air quality management plans; river basin management plans; and strategic protected species licensing areas. Consideration may also be given to local sites including where communities could benefit from improved access to nature. <u>Landscape</u> The National Planning Policy Framework is clear that plans should recognise the intrinsic character and beauty of the countryside, and that strategic policies should provide for the conservation and enhancement of landscapes. This can include nationally and locally-designated landscapes but also the wider countryside. Where landscapes have a particular local value, it is important for policies to identify their special characteristics and be supported by proportionate evidence. Policies may set out criteria against which proposals for development affecting these areas will be assessed. Plans can also include policies to avoid adverse impacts on landscapes and to set out necessary mitigation measures, such as appropriate design principles and visual screening, where necessary. The cumulative impacts of development on the landscape need to be considered carefully.	
Department for Communities 'Conservation Principles' Guidance	The Department for Communities (DfC) produced the 'Conservation Principles' guidance to set out a best practice conservation framework for all aspects of decision making affecting our historic environment. Part 1 'Conservation Principles' Guidance for the sustainable management of the historic environment in Northern Ireland' sets out the six key guiding conservation principles and explains how significance is central to conservation, how to assess it, and use it as a tool to manage change.	Ensure historic environment objective within ISA framework.

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	Part 2 'Applying the Conservation Principles' Guidance for the sustainable management of the historic environment in Northern Ireland' sets out the different types of changes impacting a heritage asset. It explains how the conservation principles can guide decision making for each change, to achieve best conservation outcomes.	
Historic Environment Division 'Guidance on Sustainability Appraisal and Strategic Environmental Assessment for the Historic Environment'	This guidance document provides information toward supporting those who are involved in assessing the effects of plans on Northern Ireland's historic environment, a valuable and finite resource, which comprises archaeological and architectural heritage representative of human interaction with the natural environment. Robust assessment of potential environmental impacts on this resource is vital to ensure that it is managed sustainably. The document offers advice on historic environment considerations during the Sustainability Appraisal and Strategic Environmental Assessment process, including examples of the baseline evidence which should be considered through the different stages of screening, scoping, assessment, and reporting. It also provides guidance on the implementation of historic environment legislation, the relevant policy in the Regional Development Strategy 2035 (RDS) and the Strategic Planning Policy Statement (SPPS).	Ensure historic environment objective within ISA framework.
Department for Communities 'Guidance on Setting and the Historic Environment'	This document sets out guidance on how DfC's Historic Environment Division (HED) develops advice to local councils, heritage consultants, and others on planning applications. It also covers land-use change that may have an impact upon the settings of heritage assets, and related designations such as Areas of Significant Archaeological Interest (ASAIs), Historic Parks, Gardens and Demesnes. The guidance includes a definition of 'setting', identifies those key aspects of setting which can contribute to the significance of a heritage asset, and outlines a three-stage process for assessing the impacts of change upon setting.	Ensure historic environment objective within ISA framework and consideration of setting within the ISA framework.
REGIONAL (ETP AREA)		
Regional Development Strategy (RDS) 2035	Provides strategic and long-term vision on the future development of Northern Ireland up to 2035.This includes regional guidance to provide policy direction in relation to the economy, society and environment and spatial framework guidance tailored to each component of the spatial planning framework. The RDS recognises Belfast as the heart of the wider metropolitan area and along with the Spatial Framework Guidance seeks to: ▪ Promote urban economic development at key locations throughout the Belfast metropolitan area by ensuring that sufficient land is available for jobs; ▪ Grow the population of the city of Belfast; ▪ Enhance the role of Belfast City Centre as the regional capital and focus of administration, commerce, specialised services and cultural amenities; ▪ Manage the movement of people within the Belfast metropolitan area; and	The ISA framework should consider including objectives relating to the protection of the environment and resilience to climate change.

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	▪ Protect and enhance the quality of the setting of the Belfast Metropolitan Urban Area (BMUA) and its environmental assets. The 8 eight main aims of the RDS are: ▪ Support strong, sustainable growth for the benefit of all parts of Northern Ireland; ▪ Strengthen Belfast as the regional economic driver and Londonderry/Derry as the principal city of the North West; ▪ Support our towns, villages and rural communities to maximise their potential; ▪ Promote development which improves the health and well-being of communities; ▪ Improve connectivity to enhance the movement of people, goods, energy and information between places; ▪ Protect and enhance the environment for its own sake; ▪ Take actions to reduce our carbon footprint and facilitate adaptation to climate change; and ▪ Strengthen links between north and south, east and west, with Europe and the rest of the world.	
Making Belfast an Active City – Belfast Cycling Network (2021)	This document sets out the objectives for a cycling network in Belfast as: ▪ To develop a comprehensive cycling network for commuter, amenity and recreational cycling through the expansion of cycling infrastructure and cycling facilities; ▪ To bring good quality cycle routes within the reach of most people in the city; ▪ To ensure a consistent quality in the design of safe infrastructure – providing dedicated infrastructure where there are large volumes of higher speed vehicles and shared facilities such as quiet streets where the volume and speed of motor traffic is low; ▪ To encourage cycling and promote safe cycling through increasing the amount of cycle parking, providing more cycling education programmes for both young people and adults, supporting events to promote cycling; ▪ To provide infrastructure and routes which are accessible to all regardless of age, gender, ethnicity or disability and which do not create hazards for vulnerable pedestrians.	The ISA framework should consider including objectives relating to the provision / support of active travel throughout the area
Belfast Cycling Network Delivery Plan 2022–31	The purpose of this Delivery Plan is to identify the key schemes throughout the city, with a particular focus on those areas where there is currently little separated or traffic-free infrastructure. It also identifies those schemes that link pieces of isolated infrastructure into a more coherent network of routes. The Plan highlights those schemes that could be deliverable in: ▪ Short term (16 routes by 2022-25) ▪ Medium term 22 routes by 2025-2028) ▪ Long term (15 routes by 2028-31)	The ISA framework should consider including objectives relating to the provision / support of active travel throughout the area

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	It also sets out strategic approaches to delivery. The timescale for delivery of each project will be refined as each project is designed, consulted upon and constructed. This network aims to provide safe and attractive space which will give people the freedom and confidence to cycle whether by providing segregated infrastructure on the public road, traffic-free paths through parks or quiet streets where motor traffic volumes are very low and the speed of traffic is appropriate to the quiet nature of the area. Over 50 individual schemes are planned for delivery including trialling new routes. Delivery of the Network was estimated to cost £100 million over a ten year period when the Belfast Cycling Network was published in June 2021. Progress will also be dependent on the level of annual funding available for active travel.	
Ensuring a Sustainable Transport Future (ESTF)	This approach builds on the RDS's aim to reduce car dependency and the need to travel by people living or working in town and city areas, focusing development in urban areas so that people live and work near services and facilities they require. It therefore aims to achieve the transportation vision through a set of strategic objectives: ▪ Support the Growth of the Economy ▫ Improve connectivity within the region ▫ Use road space and railways more efficiently ▫ Better maintain transport infrastructure ▫ Improve access in our towns and cities ▫ Improve access in rural areas ▫ Improve connections to key tourism sites ▪ Enhance the quality of life for all ▫ Improve Safety ▫ Enhance Social Inclusion ▫ Develop transport programmes focussed on the user ▪ Reduce the Environmental Impact of Transport ▫ Reduce Greenhouse gas emissions from transport ▫ Protect biodiversity ▫ Reduce water, noise and air pollution	Ensure that issues such as biodiversity, water, air and sustainably are addressed via the ISA.
Living with Water in Belfast Plan	In 2014, when it became clear that the drainage infrastructure across Belfast was unable to meet the requirements expected of it, the Northern Ireland Executive approved the development of a Strategic Drainage Infrastructure Plan (SDIP) for Belfast to: ▪ protect against flooding by managing the flow of water through a catchment from source to sea; ▪ enhance the environment through effective wastewater management and the provision of enhanced blue/green spaces to benefit local communities; and	Ensure that protection of water resources and climate change resilience are included as an objective within the SEA framework.

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	▪ grow the economy by providing the necessary capacity in our drainage and wastewater management systems to facilitate new development projects including house building. Key Aims of Living With Water in Belfast: 1. Reduce flood risk in compliance with the Floods Directive (Protect) 2. Maintain and achieve environmental compliance by improving the quality of water in the rivers and Belfast Lough (Enhance) 3. Support economic growth by enabling development (Grow) 4. Maintain essential drainage and wastewater assets 5. Adapt to climate change by providing increased resilience 6. Where possible, as part of the solutions, provide new and improved amenity benefits to the community; 7. Reduce the burden of operational costs relating to drainage and the provision of wastewater services; 8. Determine the most cost effective solutions through integrated investment planning.	
Regional Strategic Transport Network Transport Plan 2015	This Plan consists of proposals for the maintenance, management and development of the Regional Strategic Transport Network up to the end of 2015.The objectives of this plan are as follows: ▪ to support the Spatial Development Strategy in the RDS based on hubs, corridors and gateways; ▪ to develop and maintain the RSTN to enhance accessibility on an integrated basis for all users, including freight; ▪ to examine access to regional gateways and cross border links with an emphasis on improving connections from the 5 key transport and 4 link corridors; ▪ to contribute appropriately to the RTS targets; ▪ to conform to the relevant expenditure by mode envisaged in the RTS, or in a few cases present a case for a different approach; ▪ to set out plans for short, medium and longer-term proposals taking account of the RTS budget profile; ▪ to identify a set of targets, performance indicators and other outputs that can be used to measure progress against strategic objectives; and ▪ to provide input into local development plans prepared by DoE Planning Service	No implications. Informative only.
Belfast Urban Area Plan 2001 **Adopted Dec 1990**	The current development plan for the majority of the Belfast area is the Belfast Urban Area Plan (BUAP) 2001, including parts of the former district council areas of Castlereagh, Lisburn and Newtownabbey, Greenisland and Holywood. Although it was altered in 1996, the BUAP is now largely out of date and was to be formally superseded by the BMAP in September 2014. However, BMAP was quashed following a judgement in the court of appeal on 18 May 2017. This means that the BUAP 2001 remains the statutory development plan for most of the council's area.	Ensure the ISA framework considers the ETPs capacity to support Local Development Plans / Area Plans and

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	The Plan had the following principal aims: ▪ To maintain and strengthen Belfast's position as the regional centre for Northern Ireland; ▪ To create a physical environment and framework for social and economic activity which will ▪ Enhance the quality of urban living; and ▪ To facilitate an efficient, economic and orderly pattern of development. The objective of the transportation strategy was "to provide an effective, safe and convenient transport system for the Belfast Urban Area in and through which maximum economic, social and environmental terms is secured for the community as a whole within the financial resources available."	development in the wider area
Eastern Transport Plan – Transport Study (2020) [and supporting Annex's]	The Department for Infrastructure (DfI) has undertaken a Transport Study of the 5 Councils that make up the Eastern Transport Plan Area. The purpose of the Transport Study was to set out an objective evidence-based assessment of current and future transport issues in the context of the Councils' growth ambitions. The transport measures identified are in line with the Draft Programme for Government of the former NI Executive, current government policies and with the direction of the Councils' Community Plans and Preferred Option Papers. The Transport Study identified the following Transport Objectives: ▪ Objective 1 - Improving external linkages: Enhance accessibility by road and public transport from the City and Town centres to Londonderry, gateways and hubs to support greater levels of inward investment. ▪ Objective 2 - Improving public transport accessibility: Ensure an affordable and sustainable public transport accessibility to essential services for people living in the ETP area. ▪ Objective 3 - Improving active travel accessibility: Ensure there are attractive and safe active travel networks (walking and cycling) linking all residential, retail, leisure, culture, office and commercial uses within the urban areas of the ETP area. ▪ Objective 4 - Providing high quality public realm: Deliver high quality public realm in town, city and district centres with reduced vehicle dominance, to make them attractive, shared spaces to live and work and improve safety for active modes. ▪ Objective 5 - Improving City/Town centre accessibility: Enhance transport accessibility and manage traffic congestion to town, city and district centres to strengthen the ETP's role as the regional economic driver. ▪ Objective 6 - Improving public safety including air quality: Enhance safety for all modes of travel, reduce the number and severity of casualties and improve air quality. ▪ Objective 7 - Promoting sustainability and resilience: Ensure our transport systems are resilient to climate change and are well maintained.	For Information
Belfast Metropolitan Area Plan 2015	The Belfast Metropolitan Area Plan 2015 is a development plan prepared under the provisions of Part 3 of the Planning (Northern Ireland) Order 1991 by the Department of the Environment (DOE). The Plan covers the City	For Information

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	Council areas of Belfast and Lisburn and the Borough Council areas of Carrickfergus, Castlereagh, Newtownabbey and North Down. The purpose of the Plan is to inform the general public, statutory authorities, developers, and other interested bodies of the policy framework and land use proposals that will be used to guide development decisions within the BMA over the Plan period. The Plan will help to give effect to the RDS. The Plan will also: ▪ provide an essential framework for guiding investment by public, private and community sectors and help harness additional resources through collaboration in tackling problems; ▪ provide confidence and context for those wishing to develop, and those affected by, development proposals; ▪ establish a framework for positive co-ordination of public policies in joined-up Government at both regional and local levels; ▪ support the life of the local community and social and economic progress through Plan Proposals; and ▪ interpret at a local level, planning policies set out in PPSs.	
Belfast Region City Deal (BRCD)	The four pillars of the BRCD are: ▪ Investing in digital and innovation to drive productivity ▪ Boosting tourism and regeneration in the region ▪ Connecting people to opportunity and services through enhanced infrastructure ▪ Underpinning inclusive economic growth with a comprehensive employability and skills programme The infrastructure pillar is of relevance to the development of ETP, connecting people to opportunity and services through enhanced and sustainable infrastructure. Within this pillar are the following Belfast related projects are identified: **The Lagan Pedestrian and Cycle Bridge** will connect Belfast city centre with Ormeau Park, providing access to jobs, leisure space, services and opportunities for residents and visitors and contributing to the improved health and wellbeing of communities. **Belfast Rapid Transit Phase 2** – BRCD funding will support enabling investment for the extension of this public transport network which will support improved access to health, education, leisure and job facilities and improve economic return across the region.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
Belfast City Centre Regeneration Investment Strategy (2015)	The Belfast City Centre Regeneration and Investment Strategy (BCCRIS) outlines the vision and forms the blueprint for regeneration projects. Shaped by extensive engagement with stakeholders and adopted as the regeneration	Ensure the ISA framework considers the ETPs capacity to support Local Plans

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	policy for Belfast City Centre, this strategy sets out the collective ambition for the continued growth and regeneration of the city centre and its surrounding areas until 2030. The key aims of the strategy are to: ▪ increase the employment population ▪ increase the residential population ▪ manage the retail offering ▪ maximise tourism opportunities ▪ create a regional learning and innovation centre ▪ create a green centre, accessible to cyclists and walkers ▪ connect to the city around ▪ enhance shared space and social impact Some of the key strategic projects identified to shape the city centre: ▪ Five Special Action Areas ▪ Inner North West Masterplan ▪ The Linen Quarter Vision and Guidance ▪ Belfast East Bank Development Strategy ▪ Belfast Entries project ▪ City Centre Connectivity Study – A Bolder Vision ▪ Accelerating City Centre Living	and development in the wider area
A Bolder Vision	Developed collectively by Belfast City Council, the Department for Infrastructure and the Department for Communities, The Bolder vision is the City's vision to transform the centre of Belfast in line with ambitious targets set out in the Belfast Agenda for sustainable economic growth and to enhance wellbeing for all. The document sets out how a green, walkable, cyclable network of streets and places will improve health for all, revitalise the City's economy and restore a sense of collective pride in the centre of the City by the communities within and around it. The Bolder Vision is the continuation of a journey for the city instigated with the Belfast Agenda and recent policies and strategies focusing on the centre of Belfast in 2035. Following public consultation and stakeholder engagement, the Vision will be finalised and a Delivery Plan developed along with a programme for the interventions with the most beneficial outcomes for the city. It aligns to the underlying policy context of sustainable and inclusive economic growth, regeneration and accessibility for all that is set out in the Regional Development Strategy, the Belfast Agenda and the Belfast City Centre Regeneration and Investment Strategy; but it recognises that these policies and strategies do not go far	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	enough to achieve the fundamental change needed to deliver on the ambitions of the draft Programme for Government to improve wellbeing for all by tackling disadvantage and driving economic growth. The bolder vision sets 8 themes for change and four related visioning principles. It highlights car dominance in Belfast city centre, with the devotion of road space to inefficient and unsustainable means of transport, as significant contributors to poor air quality, severance and inequality of access faced by those living, working and visiting the centre of Belfast. It commits to make space for prioritising walking, cycling and public transport to halt significant congestion and improve air quality.	
Belfast City Centre Transport Framework	This report sets out a framework for the planning and delivery of transport infrastructure in and providing access to Belfast City Centre covering the period to 2020. Prepared by the Department for Infrastructure (the Department) in consultation with Belfast City Council (the Council) as the planning authority. The framework aims to ensure an integrated approach in the development of transport infrastructure and services supporting the regeneration of Belfast City Centre in line with wider strategic objectives as set out in the Programme for Government and supported by the Belfast Agenda. In this context, the framework presents a 'refresh' of the policies and schemes set out in the Eastern Transport Plan, published as a technical supplement to the Belfast Metropolitan Area Plan. This Framework set out a number of actions concerning transport infrastructure in Belfast City Centre to accommodate planned development and growth over the period to 2020. The document also undertook a Review of the implementation of ETP 2015 & BMAP.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
LOCAL – ANTRIM AND NEWTOWNABBEY COUNCIL		
Antrim Area Plan 1984-2001	The Antrim Area Plan 1984-2001 was adopted on 21 June 1989. It defines settlement development limits for Antrim, Randalstown, Crumlin, Templepatrick, Toome and Parkgate. It also contains land-use proposals for the towns and at Belfast International Airport. The plan indicated two phases of land for housing in Antrim. The first phase was released upon adoption of the plan and all second phase land has since been released.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
Local Development Plan – Preferred Options Paper	The purpose of this paper is to promote and debate on issues of strategic importance that will influence the shape of future development in the Antrim and Newtownabbey Borough up to 2030. It is a consultation document that considers key strategic planning issues arising in the Plan area and sets out a range of options as well as the council's preferred option or approach and reasoning for this. The following key themes were considered when preparing the paper: ▪ Facilitating Economic Development ▪ Meeting the Needs of Society ▪ Shaping our Environment	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
Local Development Plan 2030	The purpose of the LDP is to inform the public, statutory authorities, developers, and other interested parties of how our Borough should develop in the years ahead. The policies and proposals of the LDP will be used to determine planning applications. The LDP is intended to: ▪ Provide a plan framework that will support the economic and social needs of our Borough up to 2030, taking into account regional strategies and policies, whilst providing for the delivery of sustainable development ▪ Facilitate sustainable growth by co-ordinating public and private investment that will encourage development where it can be of most benefit to the wellbeing of our community ▪ Allocate sufficient land to meet the needs of our Borough ▪ Provide a plan-led framework for rational and consistent decision making ▪ Help deliver the spatial aspects of the Community Plan and; ▪ Provide an opportunity for all stakeholders and in particular our residents to have a say about where and how development within our Borough should take place	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
Draft Plan Strategy 2030	The draft Plan Strategy is one of two documents which will comprise the LDP for the Borough. It sets out how the Council considers the Antrim and Newtownabbey Borough will grow and develop up to 2030 and provides the following information: ▪ A Plan Visions for Antrim and Newtownabbey. ▪ A set of Strategic Objectives to deliver the Plan Vision based upon the theme of sustainable development and interlinked with the Community Plan Outcomes. ▪ A Spatial Growth Strategy setting out the approach to development across the Borough and indicating at a strategic level where growth will occur up to 2030. ▪ Strategic Policies, to implement the Strategic Objectives ▪ Detailed Management Policies which supplement the Strategic Policies that together will guide decisions in the development management process. ▪ Details of how the Council intends to monitor the Strategic Objectives of the Plan to ensure the Council is delivering what it set out to achieve.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
Local Policies Plan	This second document comprising the LDP sets out development zonings, associated key site requirements and other site specific proposals, and local policy designations required to deliver the Plan Vision, Strategic Objectives and Spatial Growth Strategy in the Plan Strategy as well as defining the limits for all Borough settlements.	Not yet published. For information only.
Statement of Community Involvement	The purpose of this Statement of Community Involvement (SCI) is to define how we will engage with the community in the delivery of our planning functions. It is set within the context of the Council's Corporate Plan1 and meets the	For Information.

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	requirements of the Planning Act (Northern Ireland) 2011 and the Planning (Statement of Community Involvement) Regulations (Northern Ireland) 2015. The Council's planning powers include: ▪ Developing a Local Development Plan which will set out what our Borough should look like and how land should be used and developed in the future; ▪ Receiving and making decisions on the majority of planning applications affecting the Borough; and ▪ Investigating alleged breaches of planning control and determining what enforcement action should be taken.	
Corporate Plan – Our Borough Your Vision 2019-2030	The Corporate Plan sets out a number of objectives in relation to Place, Prosperity and People, and highlights the borough's commitment to provide high quality, efficient and effective public services. Under the 'Prosperity' objective, the plan aims to have a world class infrastructure which supports the expansion of indigenous businesses, attracts investment and supports productivity, exports and business growth and acts as a centre of excellence for global companies. The 'Place' Objective also aims to have an efficient planning process that promotes positive development and sustainable growth.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
Economic Development Strategy 2018-2030	The Economic Strategy and action plan embraces a broad definition of economic development that understands the needs of the business in the Antrim and Newtownabbey Borough and supports them position for long term growth. Five areas of focus within the strategy are: ▪ Entrepreneurship & Business Support ▪ International Business ▪ Skills & Employability ▪ Local Wealth and Building ▪ Infrastructure Infrastructure in particular is sub divided into property, land and connectivity and quality place. Actions such as initiatives to enhance connectivity such as rail and road link improvements have therefore been set within the action plan.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
LOCAL – ARDS AND NORTH DOWN BOROUGH COUNCIL		
Planning Enforcement Strategy	This strategy provides a planning enforcement service which investigates complaints and provides expert advice on enforcement matters regarding the protection of communities, heritage and the natural environment from unauthorised developments. The purpose of the policy is to explain the key objectives of the enforcement of planning control at the council, to explain how breaches of planning control will be investigated and to set out the council's priorities for investigating breaches of planning control The key objectives for planning enforcement are:	No Implications. For information

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	▪ To bring unauthorised activity under control ▪ To remedy the undesirable effects of unauthorised development including the removal or cessation of unacceptable development ▪ To take legal action, where necessary, against those who ignore or flout planning legislation	
An Estate Strategy for Ards and North Down Borough Council for the period 2020-2025	This strategy which was developed to support a more strategic approach to corporate resource planning sets out three overreaching objectives: ▪ To support a refreshed focus on communities and people, economic regeneration and tourism, the quality of our environment and the core services provided by the Council and is partners. ▪ To generate capital and revenue efficiencies to support the delivery of corporate objectives and improved social outcomes. ▪ To create linkage between capital receipts and revenue efficiencies and the process of developing and prioritising capital investment programmes. The following principles have been set to underpin the strategy going forward: ▪ Whole Borough Approach – the council will adopt this approach to use assets in relation to the objectives of this strategy. ▪ Partnering to unlock value – using partnerships where appropriate to achieve the best outcomes for the community that the Council serves. ▪ Maximise efficiency – The council will look to minimise its own spend and maximise efficiency in achieving objectives. This includes the exploration and development of alternative models of delivery. ▪ Sustainable investment – all capital investment should be robustly challenged in advance through a staged business case process. This should demonstrate benefits in the context of the objectives set out in this strategy and balances this against long-term value for money. ▪ Strategic Investment – The council will prioritise potential asset investments on the basis of strategic alignment and greatest need, in the context of finite resources.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
Integrated Strategy 2018-2030	The Integrated Strategy for Tourism, Regeneration and Economic Development is a point of reference for all those contributing to the growth of the Borough's economy, the welcoming of visitors and the improvements of its urban and rural areas. It is built on an evidence base of research including the economic and environmental challenges faced at local and regional level. The strategy combines the Borough's three core strengths, sea, loughs and land, to convey a fresh approach to how they look after, develop, promote and celebrate Ards and North Down. The Strategy's integrated actions are assessed against the Borough's Community Plan (The Big Plan) outcomes and relates closely to the Council's Corporate Plan. The LDP will then have regard to the findings on the Integrated Strategy.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
Ards and Down Area Plan 2015	The Ards and Down Area Plan 2015 is a Development Plan prepared by Planning Service, an Agency within the Department of the Environment, under the provisions of Part III of the Planning (Northern Ireland) Order 1991. The purpose of the Plan is to inform the general public, statutory authorities, developers and other interested bodies of the policy framework and land use proposals that will be used to guide development decisions within Ards Borough and Down District over the Plan period 2000 -2015. The objectives of the plan: ▪ To facilitate sustainable patterns of growth and development throughout the Plan area in accordance with the sustainability related strategic objectives of the RDS; ▪ To promote Newtownards and Downpatrick as main towns within Northern Ireland and to strengthen their role as the principal administrative, trade, employment and residential centres within the Plan area; ▪ To allocate land for additional housing development over the Plan period in accordance with the strategic objectives and guidelines contained in the RDS relating to managing future housing growth, the distribution of housing and the drive for greater housing provision within existing urban areas; ▪ To facilitate appropriate development within existing urban areas that will promote urban renaissance, create ease of access to services and community facilities, and to maximise the use of existing infrastructure ▪ To promote compact urban forms that respect the individual character and identity of settlements, avoid urban sprawl and conserve the countryside; ▪ To facilitate development and the creation of employment, taking into account the Government Strategy on Anti-Poverty and Social Exclusion in Northern Ireland ▪ To facilitate integration between land-use planning and transportation in order to reduce congestion and the need for car journeys and to encourage a shift to more sustainable modes of transport, in particular walking and cycling; ▪ To promote vital and viable town centres ▪ To protect and enhance the character, quality and biodiversity of natural and man-made environments; and ▪ To facilitate the promotion of equality opportunity and good relations between persons of different religions belief, political opinion or racial group.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
Statement of Community Involvement	The purpose of this Statement of Community Involvement (SCI) is to set out how we shall engage with the community and key stakeholders in the delivery of planning functions. The Council's planning powers include: ▪ Preparation of a Local Development Plan (LDP) which shall set out what the Council area should look like and how land should be used and developed in the future; ▪ Making decisions on the majority of planning applications for the Borough; and ▪ investigation of alleged breaches of planning control and determining what enforcement action should be taken.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
Ards and North Down Borough Council **Local Development Plan 2030** **Preferred Options Paper**	The POP confirms that the LDP will seek to deliver the above shared vision guided by three Strategic Objectives referring directly to the economy, society and the environment, namely: ▪ Promoting economic vitality; ▪ Ensuring cohesive and safe communities; and supporting healthy lifestyles; and ▪ Protecting and enhancing the environment. The POP identifies five Overarching Principles that all development proposals must have regard to: ▪ Improving Health and Well-being; ▪ Creating and Enhancing Shared Space; ▪ Supporting Sustainable Economic Growth; ▪ Supporting Good Design and Positive Place Making; and, ▪ Preserving and Improving the Built and Natural Environment.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
Draft Plan Strategy	The draft Plan Strategy makes up one of two development plan documents comprising the LDP for the Borough. It sets out the Council's objectives in relation to the development and use of land in the Ards and North Down Borough and the strategic policies for the implementation of those objectives and other relevant matters. The Plan Strategy is based on both the information gathered and also the public and stakeholders responses to the POP.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
Corporate Plan 2020-2024	This plan focuses on progressing towards sustainable outcomes, improving services and functions as well as working in partnership with statutory bodies, businesses, the community sector and residents. The outcomes for all people in the Ards and North Down Borough are as follows: ▪ Fulfil their lifelong potential ▪ Enjoy good health and wellbeing ▪ Live in communities where they are respected, are safe and feel secure ▪ Benefit from a prosperous economy ▪ Feel pride from having access to a well-managed sustainable environment These outcomes aim to fulfil the vision of Ards and North Down being a vibrant, connected, healthy, safe and prosperous place to be.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
LOCAL – BELFAST CITY COUNCIL AREA		
Belfast City Local Development Plan	The Belfast City LDP 2035 will set out a clear vision for what type and scale of development should be encouraged and where it should be located. It will inform the policy framework and land use proposals that will implement the	Ensure the ISA framework considers the ETPs capacity to

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	strategic objectives of the Regional Development Strategy (RDS) and other regional planning policies, and will guide development decisions within Belfast up to 2035. The main objectives of the Belfast City LDP 2035 include: ▪ Provide a 15 year plan framework to support economic and social needs in the city, in line with regional strategies and policies, while providing the delivery of sustainable development; ▪ Facilitate growth by coordinating public and private investment to encourage development where it can be of most benefit to the wellbeing of the community; ▪ Allocate sufficient land to meet the needs of the city; ▪ Provide an opportunity for all stakeholders, including the public, to have a say about where and how development within the local area should take place; ▪ Provide a plan-led framework for rational and consistent decision making by the public, private and community sectors and those affected by development proposals; and ▪ Deliver the spatial aspects of The Belfast Agenda, the city's Community Plan.	support Local Plans and development in the wider area
Local Development Plan 2020-2035 – Preferred Options Paper	The Preferred Options Paper (POP) represents the first step in the preparation of the Belfast LDP 2035. The POP provides the basis for consulting with the public and stakeholders on a series of options for dealing with key issues within the plan area. It aims to stimulate public comment and provide interested parties with an opportunity to put forward their views and be part of the plan from the beginning of the process.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
Plan Strategy 2035	The Plan Strategy sets out the overall aspirations for the future development of Belfast and policies to be used in assessing planning applications. It consists of five parts: 1. Vision, aims and objectives: The four strategic aims of the LDP closely reflect the Belfast Agenda priorities. These aims are supported by a series of strategic objectives designed to help achieve the delivery of the overreaching vision of the district. 2. Strategic policies: Our strategic approach as set out in this plan provides a series of overarching plan policies that embodies the broad principles upon which the LDP is built. These will be used as a guide to assist developers to deliver development proposals that are in line with the strategic objectives of the city. 3. Spatial development strategy: Set out how the council will manage the spatial growth for the plan area. It reflects the unique role the city centre plays and also the roles of other areas across the city should play in helping achieve the plan's strategic aims. 4. Topic-based policies: This sets out a series of topic-based operational policies which help deal with the land use challenges which affect Belfast. These policies will form the basis for making decisions on planning applications,	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	and unless otherwise stated, all criteria used in each policy will apply to relevant proposals and should be considered holistically. 5. Delivery: The final section is concerned with the delivery of the topic-based policies providing details of how specific policies will be applied and proposals will be implemented. This will be supported by a detailed monitoring framework which will assess the effectiveness of the policies in achieving the plan's aims for the future.	
Statement of Community Involvement	The purpose of this statement is to set out the Council's policy for involving the community in the production of Belfast's LDP and the consideration of planning applications. It describes who, how and when the community will be invited to participate in the different stages of both LDP formulation and the determination of planning applications. The Vision of Participation of this document is: ▪ Everyone has an early and informed opportunity to express their views on the development of the area and that these representations are considered before decisions are made; and ▪ All groups in our community, regardless of religious belief, political opinion, racial group, age, sex, marital status, physical ability, sexual orientation, and those with and without dependents are enabled and empowered to participate.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
The Belfast Agenda	This is a community plan which identifies work to be focused on to develop energy and ability within people and communities in the city by 2035. Areas such as the economy, schools, the workforce, retail/leisure/cultural facilities and neighbourhoods are being considered to help make the city prosperous and satisfactory to all. The four main ambitions of the agenda to drive growth in order to reduce inequalities by 2035 are: ▪ An economy that supports 46,000 additional jobs ▪ A city population of 66,000 people ▪ A 33% reduction in the life expectancy age gap between the most and least deprives neighbourhoods ▪ Every young person leaving school has a destination that fulfils their potential.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
Corporate Plan 2020-2024	The strategic context of this plan realises the vision of the Belfast Agenda through setting five key outcomes to be achieved by 2035. Belfast Will be a city: ▪ where everyone fulfils their potential ▪ where everyone benefits from a thriving, prosperous economy ▪ where everyone experiences good health and wellbeing ▪ that is welcoming, safe, fair and inclusive for all ▪ that is vibrant, attractive, connected and environmentally-sustainable	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	The priorities for 2020-2045 cover the following areas: ▪ Growing an inclusive economy ▪ Resilience and sustainability ▪ Living here ▪ City development ▪ Working and learning ▪ Cross-cutting	
Resilience Strategy	The Resilience Strategy sets out 30 transformational programmes to transition Belfast to an inclusive, zero-emissions, climate-resilient economy within a generation. It provides a framework to safeguard Belfast against situations that could threaten its safety and stability over coming years. It will help deliver the Belfast Agenda priorities by identifying the shocks and stresses which make Belfast more vulnerable and which threaten the economic, social and environmental future.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
LOCAL – LISBURN AND CASTLEREAGH CITY COUNCIL		
Lisburn Area Plan 2001	This plan established physical development policies for Lisburn and its surrounding up to 2001. As work on the development of BMAP had commenced at the time of adoption of this plan, an element of provision had been incorporated so that the area's reasonable housing development needs could continue to be met with some certainty until such time as the successor BMAP was in place.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
Local Development Plan 2030	The purpose of the Lisburn & Castlereagh City Council LDP is to inform the public, statutory authorities, developers and other interested parties of the policy framework and land use proposals that will implement the strategic objectives of the Regional Development Strategy and guide development decisions within the Council area up to 2032.It is produced in two parts, the Plan Strategy followed by the Local Policies Plan.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
Local Development Plan 2032 - Plan Strategy	The Plan Strategy aims to promote and deliver sustainable development by improving the overall quality of life and wellbeing across the entire council district up to 2032. It will provide the strategic policy framework across a range of areas such as housing, employment, tourism and infrastructure. Contained within this plan strategy are Strategic Policies underpinned by a suite of Operational Policies which are the means of securing appropriate high quality development meeting both the needs of residents and the council. The Plan Strategy is based on six objectives which will help shape the council area over the Plan period:	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	▪ A quality place ▪ A thriving place ▪ A vibrant place ▪ An attractive place ▪ A green place ▪ A connected place	
Statement of Community Involvement	The purpose of this statement is to set out policy for involving the community in the production of Lisburn & Castlereagh City Council's Local Development Plan and the consideration of planning applications. It describes who, how and when the community will be invited to participate in the different stages of both Local Development Plan formulation and the determination of planning applications. It is intended to adopt a proactive and timely approach to community involvement through providing clear information and encouraging participation during plan preparation and pre-application, planning application submission, assessment and determination stages.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
Local Development Plan – Preferred Options Paper	The purpose of this paper is to outline the key planning issues affecting the Council area and identify the options available to address them. It should stimulate debate and receive feedback on issues of strategic significance which are likely to influence the shape of future development in the Council area and identify the Council's preferred option. The purpose of this paper is to set out: ▪ A vision, strategic objectives, key issues and options for the LDP ▪ Evidence to appraise the options ▪ The Council's preferred option and justification/rationale	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
Interim Corporate Plan 2021-24	The plan sets out how the Borough aim to progress over the three years against the key themes set out in the Corporate Plan: ▪ Leading Well – Our community has confidence in civic leadership ▪ Our Economy – We benefit from a growing and vibrant economy ▪ Health and Wellbeing – We live healthier, more fulfilling and longer lives. ▪ Where we live - We live in resilient and environmentally friendly places. ▪ Our Community – We live in confident, harmonious, safe and welcoming communities. This plan continues to work towards the purpose and vision of the Lisburn and Castlereagh Council which is 'Working together to deliver better lives for all.' And 'To be 'a progressive, dynamic and inclusive council, working in partnership to develop our community and improve the quality of people's lives' and the values we operate by.'.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
Lisburn & Castlereagh Local Biodiversity Action Plan (LBAP)	The LBAP launched in 2018 provides an overview of priority sites including key habitats and species within the Council area which have been identified for conservation and enhancement through partnership working. The Council is responsible for taking into account five key aspects of biodiversity: ▪ Protecting Biodiversity ▪ Managing Biodiversity ▪ Enhancing Biodiversity ▪ Restoring Biodiversity ▪ Raising Awareness of Biodiversity and its Importance	Ensure the ISA framework considers biodiversity issues.
Lisburn City Centre Masterplan Review 2019	The document seeks to ensure that Lisburn plays a significant role within the region by developing a range of facilities and attractions expected of a regionally significant city. The five key objectives of this plan are: ▪ A more vibrant and mixed-use city centre ▪ An expanded city centre ▪ A more diverse city centre shopping offer ▪ A more welcoming and better connected city centre ▪ A city centre public realm of distinction These objectives look to increase access to the city, improve connectivity to extended destinations planned via a wide choice of modes of travel. This will not only increase visitor experiences but support a wide range of activities to help animate the city through high quality public realm design.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
Lisburn & Castlereagh City Council Open Space Strategy 2019	The strategy defines Lisburn & Castlereagh City Council's approach, commitment and management to protect, enhance and manage open space assets. The council envisages the strategy to: ▪ Reinforce local identity and civic pride ▪ Enhance the physical character of an area ▪ Improve physical and social inclusion, including accessibility ▪ Protect and enhance biodiversity and ecological habitats ▪ Provide for children and young people's play, recreation and education ▪ Boost the economic potential of tourism, leisure and cultural activities ▪ Help mitigate and adapt to climate change ▪ Contribute to the creation of healthy places	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	Six guiding strategic principals have been set out to help achieve the vision for open space: ▪ Protect and enhance open space recognising its value in promoting health and well-being ▪ Provide exciting and active places for children and young people's play, recreation and education in both equipped and natural settings ▪ Improve access to high quality open space close to where people live ▪ Safeguard key tourism, heritage and recreation assets, reinforcing local identity and civic pride ▪ Protect and enhance the natural environment, helping to mitigate and adapt to climate change ▪ Promote opportunities for sustainable travel through greater connectivity of open spaces	
Lisburn Community Plan 2017-2032	This plan seeks to improve the social, economic and environmental well-being of the people and the Lisburn and Castlereagh area. It also promotes sustainable development for current and future generations and equality of opportunity through promotion of good relations, the tackling of poverty, social exclusion and patterns of deprivation. The LDS for Lisburn derives from a spatial analysis of this plan. The five key visions are: ▪ 'Children and Young People': our children and young people have the best start in life ▪ 'The Economy': everyone benefits from a vibrant economy ▪ 'Health and Well-being': we live healthy, fulfilling and long lives ▪ 'Where We Live': we live and work in attractive, resilient and environmentally friendly places ▪ 'Our Community': we live in empowered, harmonious, safe and welcoming communities.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
LOCAL – MID AND EAST ANTRIM BOROUGH COUNCIL		
Larne Area Plan 1984 - 2010	The purpose of the Plan is to inform the general public, Statutory Authorities, developers and other interested bodies of the policy framework and broad land use proposals which will be used to guide development up to the year 2010. The Plan presents the Department's views on how best Larne Town and the other settlements can be developed for the benefit of all. It will indicate how new developments can be accommodated within the rural area without adversely affecting the landscape. The Plan provides only a framework and does not deal with matters of detail which will be resolved through the development control process. The Plan has the following objectives: 1. To identify sufficient suitable lands for future housing, industry, commerce, open space uses and community facilities and provide an element of choice in development opportunities particularly with regard to housing and employment.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	2. To improve the quality of the urban environment by encouraging the regeneration of Larne Town Centre and the villages. 3. To identify and provide development opportunities of a suitable nature both urban and rural, throughout the Borough. 4. To protect features of the historic landscape in the Borough including archaeological sites and monuments and their settings, listed buildings and their settings and historic parks gardens and demesnes. 5. To protect areas of high landscape quality and open countryside. 6. To protect both designated sites and local sites of nature conservation interest. 7. To retain a clear distinction between urban areas and the open countryside by preventing urban sprawl and ribbon development. 8. To encourage the development of the Borough's tourist potential.	
Local Development Plan 2030	The plan will inform all planning decisions in Mid and East Antrim until 2030 and will identify the right amount of land, in the right place to meet anticipated needs for housing, employment and services, all supported by the necessary infrastructure. It will also seek to deliver sustainable development, meaning that development will meet economic and social needs without compromising the quality of the environment and will also allow the implementation of the regional direction set out by central government. The plan will consist of a Plan Strategy and Local Policies Plan.	Not yet published. For information.
Local Development Plan – Preferred Options Paper	This paper aims to stimulate public debate on strategic planning issues so as to help inform the Plan Strategy. 32 Strategic Objectives have been broadly classified with the aim to deliver the social, economic and environmental pillars of sustainable development and to inform the Preferred Options set out in this paper. The paper identifies 6 Overarching Principles which set out the general criteria that the LDP will require all future development proposals to have regard to: ▪ Promoting High Quality Design ▪ Promoting Accessibility and Connectivity ▪ Promoting Legibility and a Quality Public Realm ▪ Promoting Community Health and Wellbeing ▪ Promoting Inclusive Communities ▪ Protection and Enhancement of the Built and Natural Environment	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
Local Development Plan 2030 - Plan Strategy	The Plan Strategy sets out the vision as “Mid and East Antrim will be shaped by high quality, sustainable and connected places for people to love, work, enjoy, invest and visit, so as to improve quality of life for all.” The Plan Strategy contains a number of objectives with the following considered the most relevant to transport:	Ensure the ISA framework considers the ETPs capacity to support Local Plans

Plan, Policy or Legislation	Key Objectives / Targets / Guidance	Implications for the ISA
	▪ To support and sustain vibrant town centres in Ballymena, Larne and Carrickfergus ▪ To protect strategically important transportation assets and routes (including disused transport routes) and, where possible, to facilitate enhanced connectivity within Mid and East Antrim and between the Borough and other centres ▪ To support the role of main towns, small towns, villages and small settlements in accordance with LDP Spatial Growth Strategy and commensurate with their place in the settlement hierarchy ▪ To deliver quality residential developments (including associated public open space and linkages to green infrastructures networks) ▪ To facilitate confirmed needs of new health, educational, recreational and community services at locations accessible to local communities through various modes of transportation ▪ To promote active travel and increased opportunities for walking and cycling while protecting existing active travel routes and networks ▪ To focus significant new development in accessible locations particularly for public transport services and to promote integration between transportation and new development so as to reduce the need for travel and to reduce dependency upon travel by private car generally	and development in the wider area
Statement of Community Involvement	The Statement of Community Involvement sets out how Mid and East Antrim Borough Council intends to engage with the community in the delivery of planning functions. It describes who, how and when the community will be involved in the different stages of the preparation of the Local Development Plan, in the determination of planning applications, in planning enforcement, and other planning matters which are the responsibility of the Council.	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area
Corporate Plan 2019-2023	This plan steers the strategic direction, shapes the services and sets performance indicators against which success is measured within the Borough. It has been developed with reference to council strategies and plans, performance improvement plans, the Local Development Plan and Community Plan. The overreaching outcome of the plan is to reach the Council's vision of 'Mid and East Antrim will be a strong, vibrant, safe and inclusive community where people work together to improve the quality of life for all'. The strategic themes set out by the plans are as follows: ▪ Sustainable Jobs & Tourism ▪ Our Environment ▪ Community Safety & Cohesion ▪ Learning for Life ▪ Good Health & Wellbeing	Ensure the ISA framework considers the ETPs capacity to support Local Plans and development in the wider area

Appendix C. Baseline and Contextual Information

C.1 Biodiversity

	International / National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
Special Protection Areas (SPA) **Marine potential Special Protection Areas (pSPA)**	As of January 2021 there were 284 Classified SPAs in the UK, covering an area of 5,416,952 ha across a terrestrial and inshore domain, and 16 Classified SPAs in Northern Ireland, covering an area of 114 ha [1]. SPAs in Northern Ireland are primarily located in coastal and estuarine areas. There is also a marine pSPA (East Coast) located along the coastline of Northern Ireland.	Seven SPAs fall entirely or partially within the ETP Area. These are: ▪ Belfast Lough ▪ Belfast Lough Open Water ▪ Larne Lough ▪ Lough Neagh and Lough Beg ▪ Strangford Lough ▪ Outer Ards ▪ Antrim Hills	The following SPAs are entirely or partially within the respective council areas: Antrim & Newtownabbey Borough Council: ▪ Belfast Lough ▪ Lough Neagh and Lough Beg Belfast City Council: ▪ Belfast Lough ▪ Belfast Lough Open Water Ards & North Down Borough Council: ▪ Belfast Lough ▪ Strangford Lough ▪ Outer Ards Lisburn & Castlereagh City Council: ▪ Lough Neagh and Lough Beg Mid & East Antrim Borough Council: ▪ Belfast Lough ▪ Lough Neagh and Lough Beg ▪ Larne Lough ▪ Antrim Hills East Coast Marine pSPA is also partially located within all council areas, with the exception of Lisburn and Castlereagh City

[1] Joint Nature Conservation Committee (2023) *Special Protection Areas.* Available: Special Protection Areas – overview | JNCC - Adviser to Government on Nature Conservation

	International / National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
			Council area which does not have any coastal boarder. Carlingford SPA is located outside the boundary of Ards and North Down Borough Council Area but has been considered due to internationally and nationally important mobile species being partly responsible for its designation.

Explanatory Text and anticipated future trends:

Special Protection Areas (SPAs) are protected areas for birds in the UK. SPAs are classified in accordance with European Council Directive 2009/147/EC on the conservation of wild birds, known as the Birds Directive. SPAs protect rare and vulnerable birds (as listed on Annex I of the Birds Directive), and regularly occurring migratory species. JNCC[2] is responsible for advising the UK Government and Devolved Administrations on aspects of the classification and management of SPAs from a UK perspective, including reporting on the implementation of the UK SPA programme and the status and trends of protected bird species. New potential Special Protection Areas (pSPAs) for classification or updates to existing SPAs are submitted in tranches.

The UK's Statutory Nature Conservation Bodies (SNCBs) are responsible for assessing the condition of SPAs. Approximately 74% of all SPA's in the UK are classified as being in favourable or unfavourable-recovering condition, with 23% classed as unfavourable but recovering[3].

The locations of SPAs within Northern Ireland are shown in **Figure C-1**.

Anticipated Future Trends[4]:

- The composition of flora and fauna on each Protected Area (PA) will change – high confidence (medium evidence, high agreement)
- Cold adapted species of high latitudes and altitudes will tend to decrease on PAs, whilst warm adapted species will tend to increase – medium confidence (medium evidence, medium agreement)
- PAs in the North of the UK will gain plant species overall, whilst PAs in the south may lose some native plant species. This pattern is reversed for UK breeding birds – low confidence (medium evidence, low agreement)
- Species with lower dispersal capacities and those for which urban and intensive agricultural areas are a barrier to dispersal will be unable to colonize PAs that become climatically suitable – low confidence (limited evidence, medium agreement

[2] Joint Nature Conservation Committee JNCC (2020) *Special Protection Areas – Overview.* Available: https://jncc.gov.uk/our-work/special-protection-areas-overview/

[3] Joint Nature Conservation Committee JNCC (2023) *UKBI – C1. Protected areas.* Available: UKBI - C1. Protected areas | JNCC - Adviser to Government on Nature Conservation

[4] Bournemouth University (2015) *Biodiversity Report Card.* Available: https://nerc.ukri.org/research/partnerships/ride/lwec/report-cards/biodiversity-source04/

	International / National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
	▪ Increasing range mismatching of interacting species, such as butterflies and their host plants, might mean that more management is necessary on PAs to preserve species that interact with each other – low confidence (limited evidence, medium agreement). Integrating consideration of climate change into management plans for the PA network is likely to result in more effective (and cost-effective) conservation solutions. In order to facilitate this integration, monitoring of climate change impacts and management actions should be carried out to enable adaptive decision making.		
Special Areas of Conservation (SAC's)	There was a total of 658 SACs reported throughout the UK in March 2023 across an area of 13,491,281 ha[5]. In Northern Ireland, as of March 2024, 246,300 ha across 58 sites were declared SACs[6]. SACs are widely distributed throughout Northern Ireland, with the largest being situated around the coast and border with the Republic of Ireland.	Six SACs fall entirely or partially within the ETP Area. These are: ▪ Main Valley Bogs ▪ Garron Plateau ▪ Rea's Wood and Farr's Bay ▪ Strangford Lough ▪ Aughnadarragh Lough ▪ North Channel	<u>Antrim & Newtownabbey Borough Council</u>: ▪ Rea's Wood and Farr's Bay <u>Ards & North Down Borough Council</u>: ▪ Strangford Lough ▪ North Channel <u>Belfast City Council:</u> ▪ N/A <u>Lisburn & Castlereagh City Council:</u> ▪ N/A <u>Mid & East Antrim Borough Council:</u> ▪ Main Valley Bogs ▪ Garron Plateau ▪ North Channel
	Explanatory Text and anticipated future trends: SACs are strictly protected sites designated under the EC Habitats Directive. Article 3 of the Habitats Directive requires the establishment of a European network of important high-quality conservation sites that will make a significant contribution to conserving the 189 habitat types and 788 species identified in Annexes I and II of the Directive (as amended). The listed habitat types and species are those considered to be most in need of conservation at a European level (excluding birds). Sites of Community Importance (SCIs) are sites that have been adopted by the European Commission but not yet formally designated by the government of each country. Candidate SACs (cSACs) are sites that have been		

[5] Joint Nature Conservation Committee JNCC (2023) Special Areas of Conservation. Available: Special Areas of Conservation – overview | JNCC - Adviser to Government on Nature Conservation

[6] NISRA (2024) *Northern Ireland Environmental Statistics Report.* Available: Northern Ireland Environmental Statistics Report (daera-ni.gov.uk)

	International / National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
	submitted to the European Commission, but not yet formally adopted. JNCC is responsible for advising the UK Government and devolved administrations on aspects of the designation and management of SACs from a UK perspective. SACs are of national and international conservation importance. Approximately 73% of all SAC's in the UK are classified as being in favourable or unfavourable-recovering condition, with 30% classed as unfavourable but recovering[7]. Anticipated Future Trends[8]: See above details that are applicable to all forms of PA.		
Areas of Special Scientific Interest (ASSI) NB. The ASSI information shown includes sites designated for both biological and geological reasons.	In Northern Ireland, a total of 111,159 ha across 394 sites were declared ASSIs by 31st March 2024[9]. They are widespread throughout the whole of Northern Ireland and cover a wide variety of habitats and geological features.	There are approximately 66 ASSI's ether entirely or partially within the ETP area.	Antrim & Newtownabbey Borough Council: ▪ Lough Beg (Biological) ▪ Outer Belfast Lough (biological and geological) ▪ Inner Belfast Lough (biological) ▪ Lough Neagh (biological and geological) ▪ Aghnadarragh (geological) ▪ Ballypalady (geological) ▪ Tardree Quarry (geological) ▪ Sandry Braes (geological) ▪ Shane's Castle (biological) Ards & North Down Borough Council: ▪ Ballymacormick Point (biological) ▪ Outer Belfast Lough (biological and geological)

[7] Joint Nature Conservation Committee JNCC (2023) *UKBI – C1. Protected areas.* Available: UKBI - C1. Protected areas | JNCC - Adviser to Government on Nature Conservation

[8] UKRI (2024) Available: Natural Environment Research Council (NERC) – UKRI

[9] NISRA (2024) *Northern Ireland Environmental Statistics Report.* Available: NI Environmental Statistics Report (daera-ni.gov.uk)

	International / National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
			▪ Inner Belfast Lough (biological) ▪ Whitespots (geological) ▪ Scrabo (geological) ▪ Strangford Lough (biological) ▪ Aughnadarragh Lough (biological) ▪ Heron and Carrigullian Loughs (biological) ▪ Tieveshilly (geological) ▪ Ballyquintin Point (biological) ▪ Outer Ards (biological and geographical) ▪ Blaeberry Island Bog (biological) ▪ Lough Cowey (biological) <u>Belfast City Council:</u> ▪ Inner Belfast Lough (biological) ▪ Craigantlet Woods (biological) ▪ Belvoir (biological) ▪ Bellevue (geological) <u>Lisburn & Castlereagh City Council:</u> ▪ Belshaws Quarry (geological) ▪ Craigantlet Woods (biological) ▪ Leathemstown (biological) ▪ Slievenacloy (biological) ▪ Portmore Lough (biological) ▪ Ballynanaghten (biological) ▪ Lough Neagh (biological and geological) ▪ Clarehill (geological) ▪ Maghaberry (biological) <u>Mid & East Antrim Borough Council:</u> ▪ Black Burn (geological)

	International / National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
			▪ Gortnagory (biological) ▪ Straidkilly Wood (biological) ▪ Frosses Bog (biological) ▪ Garron Plateau (biological and geological) ▪ Cleggan Valley (biological) ▪ Scawt Hill (biological and geological) ▪ Glenarm Woods (biological) ▪ Glen Burn (biological) ▪ Waterloo (geological) ▪ Portmuck (biological and geological) ▪ Culnafay (geological) ▪ Larne Lough (biological and geological) ▪ Lough Beg (biological) ▪ North Woodburn Glen (biological) ▪ Outer Belfast Lough (biological and geological) ▪ Castletown (biological) ▪ Newlands (biological) ▪ Lemnalary (biological) ▪ Feystown (biological) ▪ Rathsherry (biological) ▪ The Gobbins (biological) ▪ Cloghfin Port (geological) ▪ Glarryford (geological) ▪ Little Deer Park (biological and geological) ▪ Linford (geological) ▪ Minnis (geological) ▪ North Woodburn Reservoir (biological) ▪ South Woodburn (biological) ▪ Copeland Reservoir (biological)

	International / National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
			▪ Galboly (biological and geological) ▪ Kilcoan (geological) ▪ Carneal (geological) ▪ Ballygalley Head (biological) ▪ Knock Dhu Sallagh Braes (biological) ▪ Cranny Falls (biological) ▪ Glynn Woods (biological) ▪ Klllydonnelly (biological)
	Explanatory Text and anticipated future trends: Areas of Special Scientific Interest (ASSI) are protected areas that represent the best of our wildlife and geological sites that make a considerable contribution to the conservation of our most valuable natural places. They are designated to help prevent loss of Biodiversity (which is the great variety of plants and animals that support life on earth) and Geodiversity (the rocks, minerals, fossils, soils and landforms that have been formed over millions of years and determine our landscapes and the species that live there). The law relating to ASSIs is contained in the Environment Order (Northern Ireland) 2002, Part IV. NIEA must declare land as an ASSI if it is of special scientific interest because of the flora or fauna that is found on it, or because of geological features.[10] Anticipated Future Trends[11]: See above details that are applicable to all forms of PA.		
Ancient Woodland & Veteran trees etc.	The UK has 609,990 ha of ancient woodlands[12]. The Inventory of Ancient and Long-Established Woodland identifies 2,374 sites, totalling 9,964ha in Northern Ireland. Of this, only 151ha is classified as Ancient Woodland (present	Detailed at Council Area Level.	Trees Preservation Orders: Antrim & Newtownabbey Borough Council: ▪ Approximately 105 TPOs13

[10] DAERA (2024) *Introduction to ASSIs.* Available: Introduction to ASSIs | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)

[11] UKRI (2024) Available: Natural Environment Research Council (NERC) – UKRI

[12] Woodland Trust (2024) *Ancient Woodland.* Available: Ancient Woodland - British Habitats - Woodland Trust

[13] ArcGIS (2021) *Antrim Newtownabbey TPOs & Conservation Areas Map*. Available: TPO_Antrim_Newtownabbey - Overview (arcgis.com)

	International / National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
	since 1600AD) with 5,662ha classified as Long-Established Woodland, 3,269ha as Possibly Ancient Woodland, 882ha of Probably Ancient Woodland.		Ards & North Down Borough Council: ▪ A total number was not available, but it is estimated that there are at least 100 TPOs[14] Belfast City Council: ▪ Approximately 145 confirmed TPOs[15] Lisburn & Castlereagh City Council ▪ Over 60 TPOs Mid & East Antrim Borough Council: ▪ Approximately 80 TPOs[16]

Explanatory Text and anticipated future trends:

In Northern Ireland, four classifications of Ancient Woodland exist: Ancient Woodland; Probably Ancient Woodland; Possibly Ancient Woodland, and; Long Established Woodland.

Ancient Woodland is irreplaceable and is of national conservation importance; however it does not have statutory protection in its own right. Within Northern Ireland, 1,500ha of classifiable woodland was lost from 1960 – 2007, although only 16ha of this can be stated to be truly Ancient Woodland (present since 1600AD)[17]. Trends are less clear within the rest of the UK, however the preservation of Ancient Woodland is increasing recognised within planning policy.
Tree Preservation Orders (TPOs) may be made in order to protect selected trees or woodland if their removal is likely to have a significant impact on the local environment and its enjoyment by the public. If a tree is protected by a TPO, the council's consent is needed before the tree can be felled or pruned. Trees in a conservation area are automatically protected as if a TPO is in place.[18]
Anticipated Future Events:

[14] ArcGIS (2024) *Ards and North Down Borough Council Tree Preservation Orders*. Available: Tree Preservation Orders (arcgis.com)
[15] BCC (2025) *Belfast City Council TPO and Conservation Area.* Available: Spectrum Spatial (belfastcity.gov.uk)
[16] ArcGIS (2024) *Mid and East Antrim Borough Council Tree Preservation Orders.* Available: Tree Preservation Orders (arcgis.com)
[17] Woodland Trust (2007) *Preliminary Report.* Available: http://www.backonthemap.org.uk/NR/rdonlyres/09F70BD6-8E68-4328-90B7-05DFE9483550/0/070115Preliminaryreport.pdf
[18] Indirect (2024) *Tree preservation.* Available: Tree preservation | nidirect

	International / National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
	See above details that are applicable to all forms of PA. In addition to the threat of climate change, ancient woodlands are at particular threat from major infrastructure projects, including road and rail schemes. Whilst many schemes take part in some form of habitat regeneration (such as replanting), the replacement habitat is not comparable to the ecological value of ancient woodlands that have been preserved since 1600. Once these habitats are removed, they cannot be replaced or regrown.		
Biosphere Reserves	There are a total of seven biosphere reserves across the UK, none of which are in Northern Ireland[19].	N/A	N/A
	Explanatory Text and anticipated future trends: Biosphere Reserves are all about improving the relationship between people and their local environment, globally. They are sites created by UNESCO that find creative ways for people and nature to thrive together. They act as extraordinary testing grounds to put into practice a revolutionary approach to managing our ecosystems sustainably for future generations. Biosphere reserves are recognised under UNESCO's Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community. Once designated, they lie under the United Kingdom's authority, but when grouped together in the global community together they make up a network of sites within the World Network of Biosphere Reserves (WNBR). Anticipated Future Trends[20]: See above details that are applicable to all forms of PA.		
Nature Reserves (National and Local)	There are approximately 48 NNRs and NRs across Northern Ireland[21]. They are located across the country although predominately in proximity to the coast and bodies of water.	There are 11 National Nature Reserves and Nature Reserves within the ETP area.	Antrim & Newtownabbey Borough Council: ▪ Farrs Bay Lough Neagh ▪ Lough Neagh Islands ▪ Randalstown Forest Lough Neagh ▪ Rea's Wood Forest Lough Neagh Ards & North Down Borough Council:

[19] UNESCO (2024) *UNESCO Biosphere Reserves in the UK.* Available: Biospheres – UNESCO UK

[20] UKRI (2024) Available: https://nerc.ukri.org/research/partnerships/ride/lwec/report-cards/biodiversity-source04/

[21] DAERA (2024) *Nature Reserves.* Available: Nature Reserves | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)

	International / National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
			▪ Ballyquintin Point ▪ Dorn ▪ Granagh Bay ▪ North Strangford Lough <u>Belfast City Council:</u> ▪ N/A <u>Lisburn & Castlereagh City Council:</u> ▪ Belshaws Quarry <u>Mid & East Antrim Borough Council:</u> ▪ Straidkilly ▪ Swan Island
	Explanatory Text and anticipated future trends: National Nature Reserves (NNRs) were established to protect some of our most important habitats, species and geology, and to provide 'outdoor laboratories' for research. NIEA manages Northern Irelands NNRs. Local Nature Reserves are areas set aside for biodiversity and where people can enjoy wildlife. They are an impressive natural resource, making an important contribution to biodiversity. Local councils have the power to name land as a Local Nature Reserves. <u>Anticipated Future Trends:</u> See above details that are applicable to all forms of PA.		
Ramsar Sites	A total of 175 Ramsar sites were recorded across an area of 1,283,039.65 ha in the UK in 2018[22]. In Northern Ireland, 20 sites across 77,700 ha were identified in March 2024[23]. Ramsar sites	There are six Ramsar sites within the ETP area.	<u>Antrim & Newtownabbey Borough Council</u>: ▪ Belfast Lough ▪ Lough Neagh and Lough Beg

[22] Ramsar Site Information Service (2018) Available: Search results | Ramsar Sites Information Service

[23] NISRA (2024) *Northern Ireland Environmental Statistics Report.* Available: NI Environmental Statistics Report (daera-ni.gov.uk)

	International / National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
	in Northern Ireland are primarily located in coastal and estuarine areas.		Ards & North Down Borough Council: ▪ Belfast Lough ▪ Outer Ards ▪ Strangford Lough Belfast City Council: ▪ Belfast Lough Lisburn & Castlereagh City Council: ▪ Lough Neagh and Lough Beg Mid & East Antrim Borough Council: ▪ Belfast Lough ▪ Lough Neagh and Lough Beg ▪ Larne Lough ▪ Garron Plateau
	Explanatory Text and anticipated future trends: Ramsar sites are wetlands of international importance designated under the Ramsar Convention. The initial emphasis was on selecting sites of importance to water birds within the UK, and consequently many Ramsar sites are also Special Protection Areas (SPAs) classified under the Birds Directive. Sites proposed for selection are advised by the UK statutory nature conservation agencies, or the relevant administration in the case of Overseas Territories and Crown Dependencies, co-ordinated through JNCC. The locations of Ramsar Sites within Northern Ireland are shown in **Appendix D.** Anticipated Future Trends[24]: See above details that are applicable to all forms of PA.		

[24] UKRI (2024) Available: Natural Environment Research Council (NERC) – UKRI

	International / National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
RSPB Reserves	There are approximately 11 RSPB Reserves in Northern Ireland[25].	There are three RSPB reserves within the ETP area, as follows; ▪ Belfast Loughs ▪ Larne Lough Islands ▪ Portmore Lough	Antrim & Newtownabbey Borough Council: ▪ Belfast Loughs Ards & North Down Borough Council: ▪ Belfast Loughs Belfast City Council: ▪ Belfast Loughs Lisburn & Castlereagh City Council: ▪ Portmore Lough Mid & East Antrim Borough Council: ▪ Larne Lough Islands
	Explanatory Text and anticipated future trends: RSPB reserves are nature reserves run by the Royal Society for the Protection of Birds (RSPB); a non-statutory body incorporated by Royal Charter. RSPB reserves cover a broad range of habitat and landscapes, including heathland, estuaries, cliffs. Anticipated Future Trends: See above details that are applicable to all forms of PA.		
Woodland Priority Habitat	Native woodland is one that consists of trees, shrubs and associated plants that are considered to be naturally occurring. These woodlands can be classified as oak, mixed ash, wet woodland and lowland wood pasture and parkland. In Northern Ireland a mild moist climate favours broadleaf trees. Most broadleaf	There are approximately 756 areas of Woodland Priority Habitat within the ETP Area.	Antrim & Newtownabbey Borough Council: ▪ Approximately 148 areas of Woodland Priority Habitat Ards & North Down Borough Council: ▪ Approximately 202 areas of Woodland Priority Habitat

[25] RSPB (2024) *RSPB Open Data*. Available: RSPB Reserves | RSPB Open Data (arcgis.com)

	International / National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
	trees lose their leaves in winter and allow high levels of light to reach the woodland floor.		Belfast City Council: ▪ Approximately 87 areas of Woodland Priority Habitat Lisburn & Castlereagh City Council: ▪ Approximately 76 areas of Woodland Priority Habitat Mid & East Antrim Borough Council: ▪ Approximately 252 areas of Woodland Priority Habitat

Explanatory Text and anticipated future trends:

Northern Ireland priority habitats are those habitats which require conservation action because of their decline, rarity and importance. Priority habitats are susceptible to impacts from development[26].

Since 2000, priority habitats have continued to show an overall decline, with grassland habitats declining most. Woodland priority habitats however, have increased. This could be due to a number of factors including changes in farming practices, invasive species, plant and animal pathogens and rural development and urbanisation[27].

Pollutants such as nitrogen oxides and particulates associated with vehicle emissions can have implications to these nearby sensitive habitats. The following effects towards woodlands are associated with the following pollutants[28]:

Nitrogen Oxides:

- Mainly on growth, photosynthesis and nitrogen assimilation/metabolism,
- Visible decline symptoms for example, leaf discoloration can occur at very high concentrations (> 400 ug m3),

[26] DAERA (2017) *Standing Advice 13: Priority habitats.* Available: standing_advice_13_priority_habitats_final_2017.pdf (qub.ac.uk)

[27] DAERA (2013) *A Second Assessment of the State of Northern Ireland's Environment.* Available: https://www.daera-ni.gov.uk/sites/default/files/publications/doe/corporate-report-from-evidence-to-opportunity-second-assessment-of-state-of-ni-environment-2013.pdf

[28] Air Pollution Information System. *Habitat/Pollutant Impact Records*. Available: habitat/species pollutant impacts database | Air Pollution Information System

	International / National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
	▪ Direct damage to mosses, liverworts and lichens, which receive their nutrients from atmospheric deposition, often leads to reductions in species diversity. Particulates: ▪ Given this ecosystems size and structure, increased air turbulence can lead to greater deposition of particles on these vegetation types. <u>Anticipated Future Trends:</u> See above details that are applicable to all forms of PA.		

C.2 Air Quality

	National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
Air Quality Management Areas	There are 19 active AQMAs within Northern Ireland. These are largely spread across Northern Ireland although there are none within Fermanagh and Omagh District Council or North Down and Ards District Council.[29]	There are eight active AQMAs within the ETP area.	The following AQMAs are the only active ones within each council area[30]: Antrim & Newtownabbey Borough Council: ▪ Elmfield AQMA was declared for nitrogen dioxide Ards & North Down Borough Council: N/A Belfast City Council: ▪ AQMA No.1 is declared for nitrogen dioxide ▪ AQMA No.2 was declared for nitrogen dioxide ▪ AQMA No.3. was declared for nitrogen dioxide ▪ AQMA No.4. was declared for nitrogen dioxide Lisburn & Castlereagh City Council: ▪ Normandy Court, Dundonald AQMA was declared for nitrogen dioxide Mid & East Antrim Borough Council: ▪ Ballykeel AQMA was declared for particulate matter PM_{10} ▪ Linenhall Street (Ballymena AQMA No.3) AQMA was declared for nitrogen dioxide

Explanatory Text and anticipated future trends:

Since December 1997 each local authority in the UK must review and assess air quality in their area to determine performance against national air quality objectives. Where air quality objectives are not likely to be achieved an AQMA must be declared. AQMAs are typically associated with vehicle

[29] Air Quality Management Areas - Northern Ireland Air (airqualityni.co.uk)
[30] Air Quality Management Areas - Northern Ireland Air (airqualityni.co.uk)

	National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
	emissions, principally oxides of nitrogen (NOx), oxides of sulphur (SO_2) and particulates (PM10). As such, AQMAs are predominantly associated with urban areas and the road network[31]). The quality of our air in the UK has improved considerably over the last decade. Road transport is a key source of many air pollutants, particularly in urban areas. Roadside nitrogen dioxide levels for example, have decreased from 40.6 µg/m^3 in 2012 to 23.7 µg/m^3 in 2023[32]. There are two main trends in the transport sector working in opposite directions: new vehicles are becoming individually cleaner in response to European emission standards legislation, but total vehicle kilometres are increasing. Overall emissions of key air pollutants from road transport have fallen by about 50% over the last decade, despite increases in traffic, and are expected to reduce by a further 25% over the next decade. This is mainly a result of progressively tighter vehicle emission and fuel standards agreed at European level and set in UK regulations[33]. The locations of AQMAs within the ETP region are shown in **Appendix D**. Note that there is also increasing recognition of the role solid fuel use in domestic properties plays in poor air quality, with wood burning making a significant contribution toward wintertime PM10 concentrations in many towns and cities. PM10 attributable to wood burning tends to peak during wintertime evenings and weekends. This suggests that wood is used principally as a secondary or 'lifestyle' fuel, rather than a primary source of heating. It also suggests that the majority of current air quality impacts are linked to simpler appliances such as open fires and stoves, rather than more complex appliances such as biomass boilers and Combined Heat and Power systems. Local authorities have experienced a number of gross pollution and nuisance cases linked to solid fuel appliances, and the frequency of these cases may be increasing. In many cases these problems occur when appliances are poorly installed, misused and/or inappropriate fuels are used[34].		

C.3 Climate Change

	National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
Climate Change	As of 2022, greenhouse gas (GHG) emissions for the UK totalled at 406.2 $MtCO_2e$, of this 325.0 $MtCO_2e$ was CO_2	Detailed at Council Area Level.	National statistics for GHG emissions show the following for the five relevant council areas in 2022[37]:

[31] Department for Environment and Rural Affairs (2016) *Current AQMAs by Source.* Available: https://uk-air.defra.gov.uk/aqma/summary

[32] Department for Environment and Rural Affairs (2024) *Northern Ireland Environmental Statistics Report.* Available: https://www.daera-ni.gov.uk/sites/default/files/publications/daera

[33] Department for Environment and Rural Affairs (2011) *The Air Quality Strategy for England. Scotland, Wales and Northern Ireland - Volume 1.* Available: https://www.gov.uk/government/publications/the-air-quality-strategy-for-england-scotland-wales-and-northern-ireland-volume-1

[34] Solid Fuel and Air Quality: An update for Local Authorities, 2013 https://www.environmental-protection.org.uk/wp-content/uploads/2013/07/Solid-Fuel-and-Air-Quality-Update-for-LAs-final-060413.pdf

[37] 2005-21-uk-local-authority-ghg-emissions-update-060723.xlsx (live.com)

	National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
Distribution of GHG emissions	emissions[35]. This was a decrease of 3.5% compared to the figures recorded for 2021 and this was largely due to 2022 being considerably warmer than 2021 and higher energy prices may also have been a factor. Northern Ireland produced 21,328 $ktCO_2e$ of GHG emissions in 2021, of this 14,104 $ktCO_2e$ was CO_2 emissions[36].		Antrim & Newtownabbey Borough Council: ▪ 1,147.6 ktCO2e of GHGs ▪ 774.3 ktCO2e of CO2 ▪ 304.4 ktCO2e of CH4 ▪ 68.9 ktCO2e of N2O Ards & North Down Borough Council: ▪ 1,151.4.0 ktCO2e of GHGs ▪ 825.5 ktCO2e of CO2 ▪ 269.7 ktCO2e of CH4 ▪ 59.2 ktCO2e of N2O Belfast City Council: ▪ 1,632.0 ktCO2e of GHGs ▪ 1,339.8 ktCO2e of CO2 ▪ 229.3 ktCO2e of CH4 ▪ 62.9 ktCO2e of N2O Lisburn & Castlereagh City Council: ▪ 1,212.0 ktCO2e of GHGs ▪ 792.5 ktCO2e of CO2 ▪ 325.2 ktCO2e of CH4 ▪ 94.3 ktCO2e of N2O Mid & East Antrim Borough Council: ▪ 1,372.2 ktCO2e of GHGs ▪ 817.9 ktCO2e of CO2

[35] Department for Energy Security and Net Zero (2024) *2022 UK Greenhouse Gas Emissions, Final Figures.* Available: 2022 UK Greenhouse Gas Emissions, Final Figures (publishing.service.gov.uk)

[36] DAERA (2024) *Greenhouse gas emissions for Northern Ireland by source sector for the years 1990 to 2022.* Available: Northern Ireland greenhouse gas inventory 1990 - 2022 (nisra.gov.uk)

	National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
			▪ 456.2 ktCO2e of CH4 ▪ 98.1 ktCO2e of N2O
	Explanatory Text and anticipated future trends: The UK's yearly publication on GHG emissions provides the latest estimates of 1990-2022 UK territorial greenhouse gas emissions, which are presented in carbon dioxide equivalent units (CO_2e). They show greenhouse gas emissions occurring within the UK's borders and cover the Kyoto "basket" of seven greenhouse gases: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), sulphur hexafluoride (SF6) and nitrogen trifluoride (NF_3). The UK has domestic targets for reducing greenhouse gas emissions under the Climate Change Act 2008 (CCA). The CCA established a long-term legally binding framework to reduce emissions, initially committing the UK to reducing emissions by at least 80% below 1990/95 baselines by 2050. In June 2019, following the IPCC's Special Report on Global Warming of 1.5°C and advice from the independent Committee on Climate Change, the CCA was amended to commit the UK to achieving a 100% reduction in emissions (to net zero) by 2050. The CCA also introduced carbon budgets, which set legally binding limits on the total amount of greenhouse gas emissions the UK can emit for a given five-year period[5]. The first carbon budget ran from 2008-12. In 2014, the UK confirmed that it had met the budget, with emissions 36 $MtCO_2e$ below the cap of 3,018 $MtCO_2e$. The second carbon budget ran from 2013-17. In 2019, the UK confirmed that it had met the budget, with emissions 384 $MtCO_2e$ below the cap of 2,782 $MtCO_2e$. <u>Anticipated Future Trends:</u> Recent trends illustrate that GHG emissions are primarily being reduced in the energy sector due to the change in fuel mix for electricity generation, in particular a reduction in the use of goal and gas. It is expected that this will continue over the next few years and decades in favour of more renewable and low-carbon sources. It can also be expected that GHG emissions in the transportation sector are likely to decrease with the increasing availability and feasibility of electric vehicles and business fleets.		
Climate Change Contribution of sectors to GHG emissions	The following sectors contributed to the UK's 2023 CO_2 emissions (provisional figures)[38]; Domestic Transport (109.3 $MtCO_2e$), Electricity Supply (43.3 $MtCO_2e$), Fuel Supply (25.1 $MtCO_2e$), Building and product uses (72.3 $MtCO_2e$), Industry (51.5 $MtCO_2e$,	Detailed at Council Area Level.	In 2022, the following sectors contributed to greenhouse gas emissions as follows[40]; <u>Antrim & Newtownabbey Borough Council</u>: Industry (86.1 $ktCO_2e$), Commercial (36.0 $ktCO_2e$), Public (28.1 $ktCO_2e$), Domestic (276.7 $ktCO_2e$),

[38] Department for Energy Security and Net Zero (2024) *Provisional UK greenhouse gas emissions statistics 2024.* Available: Provisional UK greenhouse gas emissions statistics 2024 - GOV.UK

[40] Local Authority CO2 interactive maps - NAEI, UK (beis.gov.uk)

	National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
	Agriculture (6.9 $MtCO_2e$), Waste (0.2 $MtCO_2e$), LULUCF (-5.9 $MtCO_2e$). As of 2023, Domestic Transport was the largest emitting sector of Northern Irelands GHG emissions with 29%, followed by Buildings and product uses at 20%. The remaining sectors contributed to Northern Ireland GHG emissions as follows: Industry (14%), Electricity Supply (11%), Fuel Supply (8%), Waste (5%) and LULUCF (0.3%)[39].		Transport (329.0 $ktCO_2e$), LULUCF (25.5 $ktCO_2$), Agriculture (277.6 $ktCO_2e$), Waste Management (88.7 $ktCO_2e$) and total (1,147.6 $ktCO_2e$). Ards & North Down Borough Council: Industry (46.7 $ktCO_2e$), Commercial (35.9 $ktCO_2e$), Public (12.7 $ktCO_2e$), Domestic (341.3 $ktCO_2e$), Transport (186.9 $ktCO_2e$), LULUCF (198.4 $ktCO_2e$), Agriculture (236.4 $ktCO_2e$), Waste Management (93.1 $ktCO_2e$) and total (1,151.4 $ktCO_2e$). Belfast City Council: Industry (173.9 $ktCO_2e$), Commercial (164.7 $ktCO_2e$), Public (118.9 $ktCO_2e$), Domestic (539.5 $ktCO_2e$), Transport (303.5 $ktCO_2e$), LULUCF (83.8 $ktCO_2e$), Agriculture (20.8 $ktCO_2e$), Waste Management (226.9 $ktCO_2e$) and total (1,632.0 $ktCO_2e$). Lisburn & Castlereagh City Council: Industry (113.7 $ktCO_2e$), Commercial (48.2 $ktCO_2e$), Public (38.4 $ktCO_2e$), Domestic (281.7 $ktCO_2e$), Transport (283.4 $ktCO_2e$), LULUCF (30.1 $ktCO_2e$), Agriculture (244.8 $ktCO_2e$), Waste Management (171.8 $ktCO_2e$) and total (1,212.0 $ktCO_2e$). Mid & East Antrim Borough Council: Industry (141.5 $ktCO_2e$), Commercial (13.1 $ktCO_2e$), Public (5.4 $ktCO_2e$), Domestic (274.3 $ktCO_2e$), Transport (269.3 $ktCO_2e$), LULUCF (128.8 $ktCO_2e$), Agriculture (463.9 $ktCO_2e$), Waste Management (75.8 $ktCO_2e$) and total (1,372.2).

[39] Department for Energy Security and Net Zero (2024) *Provisional UK greenhouse gas emissions statistics 2024.* Available: Provisional UK greenhouse gas emissions statistics 2024 - GOV.UK

	National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
	Explanatory Text and anticipated future trends: The UK's yearly publication[41] on GHG emissions provides the latest estimates of 1990-2022 UK territorial greenhouse gas emissions, which are presented in carbon dioxide equivalent units (CO2e). They show greenhouse gas emissions occurring within the UK's borders and cover the Kyoto "basket" of seven greenhouse gases: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), sulphur hexafluoride (SF6) and nitrogen trifluoride (NF3). The UK has domestic targets for reducing greenhouse gas emissions under the Climate Change Act 2008 (CCA). The CCA established a long-term legally binding framework to reduce emissions, initially committing the UK to reducing emissions by at least 80% below 1990/95 baselines by 2050. In June 2019, following the IPCC's Special Report on Global Warming of 1.5°C and advice from the independent Committee on Climate Change, the CCA was amended to commit the UK to achieving a 100% reduction in emissions (to net zero) by 2050. The Northern Ireland Energy Strategy targets a 56% reduction in energy-related carbon emissions relative to 1990 levels by 2030. This is in line with the CCC's recommended pathway for Northern Ireland to arrive at net zero carbon energy by 2050. The CCA also introduced carbon budgets, which set legally binding limits on the total amount of greenhouse gas emissions the UK can emit for a given five-year period5. The first carbon budget ran from 2008-12. In 2014, the UK confirmed that it had met the budget, with emissions 36 $MtCO_2e$ below the cap of 3,018 $MtCO_2e$. The second carbon budget ran from 2013-17. In 2019, the UK confirmed that it had met the budget, with emissions 384 $MtCO_2e$ below the cap of 2,782 $MtCO_2e$. Anticipated Future Trends: Recent trends illustrate that GHG emissions are primarily being reduced in the energy sector due to the change in fuel mix for electricity generation, in particular a reduction in the use of goal and gas. It is expected that this will continue over the next few years and decades in favour of more renewable and low-carbon sources. It can also be expected that GHG emissions in the transportation sector are likely to decrease with the increasing availability and feasibility of electric vehicles and business fleets.		
Climate Change Predicted changes to	As of August 2022, the following climate change impacts are predicted for the UK[42]: ▪ Increased warmer, wetter winters ▪ Increased hotter, drier summers	The Climate Change Action Plan 2024 -25 summarises work undertaken to date, and sets out actions DfC will take in the coming year.[43] UKCP18 projects greater chance of hotter, drier summers and warmer, wetter winters with more extreme weather and rising sea levels. The	Reported at National and Regional level.

[41] Department for Business, Energy & Industrial Strategy (2020) *2018 UK GHG Emissions, Final Figures.* Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/862887/2018_Final_greenhouse_gas_emissions_statistical_release.pdf

[42] Met Office (2022) *UK Climate Projections headline findings.* Available: ukcp18_headline_findings_v4_aug22.pdf (metoffice.gov.uk)

[43] DfC (2024) *DfC Climate Change Action Plan 2024-25.* Available: 2024-25 Climate Action Change Plan

	National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
temperature and weather patterns	▪ Increased frequency and intensity of extreme weather conditions such as flooding and drought In the last decade sea levels around the UK rose on average by over 3mm a year.	highest predicted releases for Northern Ireland shows that by: ▫ 2070 winters could be up to 3.9 °C warmer and summers could be up to 4.9°C hotter ▫ 2070 winters could be 25 per cent wetter and summers 38 per cent drier ▫ 2100 sea levels in Belfast could rise by up to 94cms[44] The Climate Change Act (Northern Ireland) 2022 (Act) sets a target of an at least 100% reduction in net zero greenhouse gas (GHG) emissions by 2050 (i.e., net zero emissions by 2050) for Northern Ireland compared to baseline, along with interim targets including an at least 48% reduction in net emissions by 2030[45].	

Explanatory Text and anticipated future trends:

In December 2015, climate change issues were highlighted during the UN Conference of the Parties (COP) 21. At COP21, 189 parties ratified The Paris Agreement. The Paris Agreement's long-term temperature goal is to keep the increase in global average temperature to well below 2 °C above pre-industrial levels; and to pursue efforts to limit the increase to 1.5 °C, recognising that this would substantially reduce the risks and impacts of climate change globally. It also aims to increase the ability of parties to adapt to the adverse impacts of climate change and make "finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development."

Under the Paris Agreement, each country must determine, plan, and regularly report on the contribution that it undertakes to mitigate global warming. No mechanism forces a country to set a specific emissions target by a specific date, but each target should go beyond previously set targets.

[44] DAERA (2018) *UK Climate Change Projections.* Available: UK Climate Change Projections | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)

[45] DAERA (2022) *The Climate Change Act (Northern Ireland) 2022 – Key elements.* Available: The Climate Change Act (Northern Ireland) 2022 - Key elements | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)

C.4 Flood Risk

	International/National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
Location of Flood Zones	The Northern Ireland Flood Risk Assessment Plan 2018 estimates that just over 25,000 or approximately 3% of the 861,000 properties in NI are located within the 1 in 100yr fluvial floodplain or 1 in 200yr coastal floodplain. In addition, the surface water flood map indicates that around 24,500 or 3% of the properties in Northern Ireland are sited in areas shown to be at risk of flooding from a 1 in 200yr pluvial event with a depth greater than 300mm[46]. The Flood Risk assessment also identified a total of 45 flood risk areas. Out of these, 12 have been identified as Areas of Potential Significant Flood Risk (APSFR) and a further 9 determined as Transitional Areas of Potential Significant Flood Risk (TAPSFR)[47]. The largest of these are located around centres of population, such as Belfast in the east and Londonderry in the west[48]. The second cycle FRMP consolidates each of NI's three principal river basin districts,	There are seven areas of APSFR within the ETP area as follows: ▪ Belfast ▪ Bangor ▪ Carrickfergus ▪ Newtownabbey ▪ Glengormley and Mallusk ▪ Larne ▪ Ballymena There are also three areas of TAPSFR: ▪ Newtownards ▪ Dundonald ▪ Antrim	The second cycle FRMP consolidates each of NI's three principal river basin districts, North Eastern, Neagh Bann and North Western into one plan and therefore flood risk is reported at National and Regional level only.

[46] Department for Infrastructure (2018) *Northern Ireland Flood Risk Assessment.* Available: Northern Ireland Flood Risk Assessment (NIFRA) 2018 - Revised May 2019 (infrastructure-ni.gov.uk)

[47] Department for Infrastructure (2021) *2nd Cycle – Flood Hazard and Flood Risk Maps.* Available: 2nd Cycle - Flood Hazard and Flood Risk Maps | Department for Infrastructure (infrastructure-ni.gov.uk)

[48] Department for Infrastructure (2024) *Flood Maps NI.* Available: Flood Maps (NI) (arcgis.com)

	North Eastern, Neagh Bann and North Western into one plan[49]. NB: Other areas of Northern Ireland are likely to be at risk of flooding, although these are not as extensively mapped/assessed due to Significant Flood Risk Areas being allocated on the basis of population density[50].		
	Explanatory Text and anticipated future trends: Estimates of flood risk from different sources across the UK vary, but it is known that the level of risk is substantial – in Northern Ireland, the Preliminary Flood Risk Assessment (PFRA) 2011 estimated that 46,000 or 5% of the 830,000 properties in Northern Ireland are located within the undefended 1 in 100 year fluvial floodplain or 1 in 200 year coastal floodplain[51]. While new development is expected to occur in the plan area making use of a sequential approach, **without a strategic approach, there is increased potential for the inappropriate siting of new development which may aggravate existing flood risk**.		
Bathing Water Quality	In Northern Ireland, of the 26 monitored coastal bathing waters[52] all but one classified overall as reaching minimum standards during the 2023 annual classification. The quality status of bathing water areas assessed under the Bathing Waters Directive were[53]: ▪ Excellent – 18 (69.3%) ▪ Good – 6 (23.1%) ▪ Sufficient – 1 (3.8%) ▪ Poor – 1 (3.8%)	There are eight bathing waters directive protected areas partially within the ETP area.	Antrim & Newtownabbey Borough Council: ▪ N/A Ards & North Down Borough Council: ▪ Crawfordsburn ▪ Helens Bay ▪ Groomsport ▪ Ballyholme ▪ Millisle ▪ Ballywalter

[49] Department for Infrastructure (2021) *2nd Cycle – Flood Risk Management Plan 2021 – 2027.* Available: 2nd Cycle - Flood Risk Management Plan 2021-2027 | Department for Infrastructure (infrastructure-ni.gov.uk)

[50] Department for Infrastructure (2020) *Flood Maps NI.* Available: https://www.infrastructure-ni.gov.uk/topics/rivers-and-flooding/flood-maps-ni

[51] Rivers Agency (2011) Preliminary Flood Risk Assessment and Methodology fort the Identification of Significant Flood Risk Areas. Available: https://www.infrastructure-ni.gov.uk/sites/default/files/publications/dard/final-pfra-report.pdf

[52] DAERA (2023) *Bathing Water Profiles.* Available: 2023 Bathing Water Profiles | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)

[53] Northern Ireland Executive (2023) *96% of our Bathing Waters meet required water quality standards in 2023.* Available: 96% of our Bathing Waters meet required water quality standards in 2023 | Northern Ireland Executive

			▪ Cloughey Belfast City Council: ▪ N/A Lisburn & Castlereagh City Council: ▪ N/A Mid & East Antrim Borough Council: ▪ Carnlough
	Explanatory Text and anticipated future trends: Water quality at designated bathing water sites in Northern Island is assessed by the DAERA Marine and Fisheries Division. The bathing season runs from June through to mid-September during which water quality is assessed on 20 different occasions. Annual ratings classify each site as excellent, good, sufficient or poor[54].		
Coastal Processes **Shoreline Management Plans**	Coastal erosion has historically been a minor concern in Northern Ireland compared to that in England and Wales. This is illustrated by only 32% of NI's coastline being fronted by man made structure and 68% natural compared to 44% in England and Wales. No one Executive department has the overall responsibility for the management of risk associated with coastal erosion, however the following departments are responsible for various aspects of coastal management relating to coastal erosion[55]: ▪ Department for Infrastructure ▪ Translink ▪ Department for Agriculture, Environment and Rural Affairs ▪ Department for Communities ▪ Local Government	Reported at National level only.	Reported at National level only.

[54] DAERA (2024) *About bathing water quality.* Available: About bathing water quality | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)
[55] DAERA (2018) *Coastal Erosion Risk Management NI.* Available: Coastal Erosion Risk Management NI (infrastructure-ni.gov.uk)

Explanatory Text and anticipated future trends: Flood risk management plans (FRMPs) describe the risk of flooding from rivers, the sea, surface water reservoirs. Each FRMP covers a specific river basin district and sets out how risk management authorities will work together and with communities to manage flood and coastal risk over the next 6 years. Risk management authorities include the River Agency, Northern Ireland Water, Transport NI, Planning NI and local government [56].

As well at being at risk of flooding from fluvial sources, parts of the ETP Region are also at risk of flooding from tidal sources. It is likely that **without a strategic approach to development there may be increased potential for a larger number of homes being at risk of tidal flooding.**

Northern Ireland does not have a strategic approach to shoreline management[57].

Future trends for coastal change in Northern Ireland include erosion hotspots and shoreline change, with significant erosion in certain areas compared to others, like at Magilligan Point. Conversely, shoreline advancement is observed in places like Murlough in County Down, largely due to historical human modification such as land reclamation and port construction. Sea level rise is likely to increase with Northern Ireland is projected to experience at least 11 cm of sea-level rise by 2100, with worst-case scenarios suggesting up to 94 cm if global emissions are not curbed. Climate change impacts include warmer, wetter winters and hotter, drier summers, which can exacerbate coastal erosion and flooding risks, as well as increased storm intensity and frequency may also contribute to coastal infrastructure vulnerability. Historical and current human activities such as harbour expansions and land reclamation have altered sediment flows and shoreline dynamics.

C.5 Historic Environment

	International/National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
World Heritage Sites	There are two World Heritage Sites in Northern Ireland as of July 2024[58] with 35 distributed across the entirety of the United Kingdom. The sites in NI are: ▪ Giant's Causeway and Causeway Coast ▪ Gracehill Moravian Church Settlement[59]	The recently designated Gracehill Moravian Church Settlement is located within the ETP region.	The recently designated Gracehill Moravian Church Settlement is located within Mid and East Antrim Borough Council.

[56] Department for Infrastructure (2015) *Flood risk management plans.* Available: Flood risk management plans | Department for Infrastructure (infrastructure-ni.gov.uk)
[57] Northern Ireland Assembly (2015) *Shoreline Management Planning in Northern Ireland.* Available: 2015-04-15-kess-shoreline-management-planning-in-northern-ireland1.pdf (niassembly.gov.uk)
[58] UNESCO (2017) *World Heritage Convention - United Kingdom of Great Britain and Northern Ireland*. Available: http://whc.unesco.org/en/statesparties/gb
[59] DfC (2024) Historic Environment Map Viewer. Available: https://experience.arcgis.com/experience/

	To be included on the World Heritage List, sites must be of "Outstanding Universal Value". This is demonstrated by meeting one of the ten selection criteria. These criteria are divided between those of cultural and natural importance. The Giant's Causeway and Causeway Coast site is notified for its natural value[60].		
	Explanatory Text and anticipated future trends: World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention and the sites are designated for their globally important cultural or natural interest and require appropriate management and protection measures[61]. The first World Heritage Sites within the UK were designated in 1986. Sites can continue to be nominated, with the last site on the UK mainland being the Slate Landscape of Northwest Wales, designated in 2012[62]. Sites are inscribed by the United Nations Educational, Scientific and Cultural Organisation (UNESCO). The Outstanding Universal Value of a World Heritage Site indicates its importance as a heritage asset of the highest significance. This is to be taken into account by the relevant authorities in plan-making and determining planning applications[63]. There are no sites on the List of World Heritage in Danger in the UK. The list presently comprises 57 sites in total worldwide. These are sites at which conditions are present to threaten the characteristics for which a site was placed on the World Heritage List[64].		
Scheduled Monuments and Scheduled Historic Monument Zones	There are over 2,000 Scheduled Historic Monuments located throughout Northern Ireland[65]. The criteria for determining whether Scheduled Monuments are of national importance are guided by the Department for the Community, covering the basic characteristics of monuments[66]. They are: ▪ Period	There are approximately 4,957 sites from the Northern Ireland Sites and Monuments Record (NISMR) within the ETP area, of these approximately 522 are scheduled. There are approximately 492 Scheduled Historic Monument Zones within the ETP area.	Antrim & Newtownabbey Borough Council: ▪ Approximately 1,449 sites from the NISMR of these approximately 109 are scheduled. ▪ Approximately 111 Scheduled Historic Monument Zones Ards & North Down Borough Council:

[60] UNESCO (2020) *About World Heritage: United Kingdom of Great Britain and Northern Ireland.* Available: https://whc.unesco.org/en/statesparties/gb

[61] UNESCO (2017) *World Heritage Convention - United Kingdom of Great Britain and Northern Ireland*. Available: http://whc.unesco.org/en/statesparties/gb

[62] HM Government (2022) *Search launched for the next UNESCO World Heritage Sites.* Available: Search launched for the next UNESCO World Heritage Sites - GOV.UK

[63] MHCLG (2019) *Planning practice guidance. Further guidance on World Heritage Sites. Paragraph: 028 Reference ID: 18a-028-20190723.* Available: https://www.gov.uk/guidance/conserving-and-enhancing-the-historic-environment#World-Heritage-Sites

[64] UNESCO (2020) *List of World Heritage in Danger.* Available at: https://whc.unesco.org/en/danger

[65] Department for Communities (2024) *Scheduled Historic Monuments.* Available: Scheduled Historic Monuments | Department for Communities

[66] Department for Communities (2024) *Scheduling of Historic Buildings.* Available: dfc-hed-scheduling-of-historic-buildings.PDF (communities-ni.gov.uk)

	▪ Rarity ▪ Documentation ▪ Group value ▪ Survival/condition ▪ Fragility ▪ Diversity ▪ Potential/vulnerability	▪ Approximately 937 sites from the NISMR of these approximately 122 are scheduled. ▪ Approximately 86 Scheduled Historic Monument Zones <u>Belfast City Council:</u> ▪ Approximately 208 sites from the NISMR of these approximately 54 are scheduled. ▪ Approximately 42 Scheduled Historic Monument Zones <u>Lisburn & Castlereagh City Council:</u> ▪ Approximately 801 sites from the NISMR of these approximately 75 are scheduled. ▪ Approximately 96 Scheduled Historic Monument Zones <u>Mid & East Antrim Borough Council:</u> ▪ Approximately 1,567 sites from the NISMR of these approximately 162 are scheduled. ▪ Approximately 159 Scheduled Historic Monument Zones
Explanatory Text and anticipated future trends: Scheduling is the selection of nationally important archaeological sites which are legally protected. The monitoring and identification of sites is undertaken by the Historic Environment Division. Scheduled Monuments cover the whole range of archaeological sites and are not always visible or above ground sites. Since 2001/02, there has been a 35% increase in the number of scheduled monuments as of 2022/23[67]. Additional development in the Plan Area may be **inappropriately located or designated to pose a risk to scheduled monuments and their setting**s. Without a co-ordinated strategic approach to development and infrastructure there is an increased potential for this risk to result. The locations of Scheduled Monuments are shown in **Appendix D**.		

[67] Department of Agriculture, Environment and Rural Affairs (2024) *Northern Ireland Environmental Statistics Report*. Available: https://www.daera-ni.gov.uk/sites/default/files/publications/daera

Listed Buildings and Conservation Areas	There are over 8,900 Listed Buildings in NI[68]. Conservation Areas are designated for their special architectural and historic interested and there are approximately 60 in Northern Ireland[69].	There are approximately 3,293 listed buildings within the ETP area. These are divided into grades as follows: ▪ Grade A – 106 ▪ Grade B – 185 ▪ Grade B+ - 245 ▪ Grade B1 – 1,229 Grade B2 – 1,528	Antrim & Newtownabbey Borough Council: ▪ Total - 313 ▪ Grade A – 25 ▪ Grade B – 1 ▪ Grade B+ - 24 ▪ Grade B1 – 110 ▪ Grade B2 – 153 Ards & North Down Borough Council: ▪ Total - 677 ▪ Grade A – 16 ▪ Grade B – 28 ▪ Grade B+ - 50 ▪ Grade B1 – 223 ▪ Grade B2 – 360 Belfast City Council: ▪ Total – 1,330 ▪ Grade A – 46 ▪ Grade B – 67 ▪ Grade B+ - 108 ▪ Grade B1 – 549 ▪ Grade B2 – 560 Lisburn & Castlereagh City Council: ▪ Total - 438 ▪ Grade A – 9 ▪ Grade B – N/A ▪ Grade B+ - 34 ▪ Grade B1 – 153 ▪ Grade B2 – 242

[68] Department for Communities (2024) *Scheduled Historic Monuments.* Available: Scheduled Historic Monuments | Department for Communities

[69] nidirect (2021) *Conservation areas and advice*. Available: https://www.nidirect.gov.uk/articles/conservation-areas-and-advice

Mid & East Antrim Borough Council:

- Total - 535
- Grade A – 10
- Grade B – 89
- Grade B+ - 29
- Grade B1 – 194
- Grade B2 – 213

Explanatory Text and anticipated future trends:

Listed Buildings are those designated through listing as being of 'special architectural or historic interest' under Section 80 of the Planning Act (NI) 2011. The List of Buildings is a register recording all types of structures, ranging from grand houses and cathedrals to warehouses and small buildings. Statutory listing of buildings began in Northern Ireland in 1974. Listing of buildings is concerned with recognising the buildings special architectural and historic interest, with a view to protecting the building, under the planning system for future generations to enjoy[70].

Buildings are considered by Department for Communities and where they are deemed to be of special architectural or historic interest they can be included on the list. The Planning Act (NI) 2011 sets out the designation regime[71].

While five grades of listed building in Northern Ireland have been recorded in spatial data published across the ETP study area by the Department for Communities, four grades have been formally recognised by the Historic Environment Division, as follows[72]:

- Grade A are buildings of greatest importance to Northern Ireland including both outstanding architectural set-pieces and the least altered examples of each representative style, period and type.
- Grade B+ are high quality buildings that because of exceptional features, interiors or environmental qualities are clearly above the general standard set by grade B1 buildings. Also buildings which might have merited Grade A status but for detracting features such as an incomplete design, lower quality additions or alterations.
- Grade B1 are good examples of a particular period or style. A degree of alteration or imperfection of design may be acceptable. Generally B1 is chosen for buildings that qualify for listing by virtue of a relatively wide selection of attributes. Usually these will include interior features or where one or more features are of exceptional quality and/or interest.
- Grade B2 are special buildings which meet the test of the legislation. A degree of alteration or imperfection of design may be acceptable. B2 is chosen for buildings that qualify for listing by virtue of only a few attributes. An example would be a building sited within a conservation area where the quality of its architectural appearance or interior raises it appreciably above the general standard of buildings within the conservation area

[70] Department for Communities (2024) *Listed Buildings.* Available: https://www.communities-ni.gov.uk/articles/listed-buildings

[71] Department for Communities (2024) *Scheduling of Historic Buildings.* Available: https://www.communities-ni.gov.uk/sites/default/files/publications/communities/dfc-hed-scheduling-of-historic-buildings.PDF

[72] DfC (2019) *Criteria for the Scheduling of Historic Monuments and the Listing of Buildings of Special Architectural or Historic Interest with associated procedures.* Available: dfc-hed-scheduling-of-historic-buildings.PDF (communities-ni.gov.uk)

	The number of listed buildings has increased by 11% to 9,072 in 2022/23 compared to 2003/04[73]. Conservation areas are places of special architectural or historic interest where it is desirable to preserve and enhance the character and appearance of such areas[74]. Additional development in the Plan Area may be **inappropriately located or designed to pose a risk to listed building and conservation areas and their setting**s. Without a co-ordinated strategic approach to development and infrastructure there is an increased potential for this risk to result. The locations of listed buildings in the ETP Region are shown in **Appendix D.**		
Areas of Significant Archaeological Interest	An Area of Significant Archaeological Interest (ASAI) are of Regional Importance in Northern Ireland, due to their distinctive historic landscape character and landscape-scale heritage value[75]. There are 11 designated in Northern Ireland.	Within the ETP region, there are two ASAI.	The two ASAI within the ETP region fall into the following local authority areas: Antrim & Newtownabbey Borough Council: None identified Ards & North Down Borough Council: None identified Belfast City Council: ▪ Giants Ring Lisburn & Castlereagh City Council: None identified Mid & East Antrim Borough Council: ▪ Knockdhu
	Explanatory Text and anticipated future trends:		

[73] Department of Agriculture, Environment and Rural Affairs (2024) *Northern Ireland Environmental Statistics Report*. Available: https://www.daera-ni.gov.uk/sites/default/files/publications/daera

[74] NI Direct (2024) *Conservation Areas.* Available: Conservation areas and advice | nidirect

[75] Areas of Significant Archaeological Interest | Department for Communities

	The designation of a landscape as an Area of Significant Archaeological Interest (ASAI) through a Local Development Plan (LDP), recognises that these areas are of Regional Importance in Northern Ireland, due to their distinctive historic landscape character and landscape-scale heritage value. Now the rationale for the protection and designation of ASAIs is framed in the provisions of the Strategic Planning Policy Statement for Northern Ireland 2015 para 6.29; "Where appropriate, LDPs should designate ASAI. Such designations seek to identify particularly distinctive areas of the historic landscape in Northern Ireland. They are likely to include a number of individual and related sites and monuments and may also be distinguished by their landscape character and topography. Local policies or proposals for the protection of the overall character and integrity of these distinctive areas should be included in LDPs were relevant." This aligns with the guidance published in the Regional Development Strategy 2035 RG11, para 3.30 bullets 1 and 3[76]. Local Councils across Northern Ireland are presently in the process of creating local development plans for their district. Through these plans further new ASAIs can be designated and local bespoke policies created for their protection.		
Area of Townscape / Village Character (ATC / AVC)	In Northern Ireland, areas where the variety or consistency of the overall character is particularly distinctive and merits protection from inappropriate change have been designated as Areas of Townscape Character (ATCs) and Areas of Village Character (AVCs).	Detailed at Council Area Level.	Antrim & Newtownabbey Borough Council: Information on ATCs/AVCs specific to this council area not available. Ards & North Down Borough Council: The Ards and Down Area Plan 2015 relates to the legacy Ards Borough and designated six ATC/AVCs. Belfast City Council: Information on ATCs/AVCs specific to this council area not available. However, within Belfast Metropolitan area, as at September 2015, 49 Areas of Townscape Character were listed. Lisburn & Castlereagh City Council:

[76] Areas of Significant Archaeological Interest | Department for Communities

			Lisburn & Castlereagh City Council's Local Development Plan 2032 notes seven ATCs and seven AVCs in the council area. <u>Mid & East Antrim Borough Council:</u> Mid & East Antrim Borough Council's Local Development Plan 2030 – Plan Strategy notes five ATCs within council area.
	Explanatory Text and anticipated future trends: The designation of ATCs and AVCs through Local Development Plans (LDPs), recognises that these areas are of Regional Importance in Northern Ireland, due to their distinct character, based on their historic built form or layout. The rationale for the management of ATCs/AVCs is framed in the provisions of the Strategic Planning Policy Statement for Northern Ireland 2015 para 6.21 – 6.23; "In managing development within ATCs designated through the LDPs process, the council should only permit new development where this will maintain or enhance the overall character of the area and respect its built form. The demolition of an unlisted building in an ATC should only be permitted where the building makes no material contribution to the distinctive character of the area and subject to appropriate arrangements for the redevelopment of the site. Consent for the display of an advertisement in an ATC should only be granted where the overall character and appearance of the area will be maintained, and the proposal meets the requirements of strategic policy on the Control of Outdoor Advertisements." Local Councils across Northern Ireland are presently in the process of creating local development plans for their district. Through these plans further new ATCs/AVCs may be designated.		
Industrial Heritage Record	There are over 16,000 features in Northern Ireland listed on the Industrial Heritage Record, including over 9,000 industrial heritage sites.	Within the ETP region, there are approximately 4,500 features in this record, approximately 2,500 of which are Industrial Heritage Sites. Sites range from structures such as bridges, mills, kilns and buildings, to quarries, ports and piers.	<u>Antrim & Newtownabbey Borough Council</u> ▪ Approximately 976 features in the record Ards& North Down Borough Council ▪ Approximately 588 features in the record Belfast City Council ▪ Approximately 830 features in the record

			Lisburn and Castlereagh City Council ▪ Approximately 662 features in the record Mid & East Antrim Borough Council ▪ Approximately 1461 features in the record
	Explanatory Text and anticipated future trends: Northern Ireland once boasted a varied and rich industrial economy that included internationally renowned companies such as Harland and Wolff. This has left a large and important legacy of sites that include factories and mills, mines, canals and railways. The Record was compiled from a survey of historic maps and most entries have limited information.		
Historic Battlefields and Defence Heritage Sites	There is no formal register of historic battlefields in Northern Ireland. Although it does have a number of Defence Heritage Records (DHRs). There are approximately 3,800 of these in Northern Ireland.	There are approximately 1,850 Defence Heritage Records within the ETP Area.	Antrim & Newtownabbey Borough Council: ▪ Approximately 666 DHRs Ards & North Down Borough Council: ▪ Approximately 473 DHRs Belfast City Council: ▪ Approximately 173 DHRs Lisburn & Castlereagh City Council: ▪ Approximately 252 DHRs Mid & East Antrim Borough Council: ▪ Approximately 329 DHRs
	Explanatory Text and anticipated future trends: Historic battlefields are designated by Historic England as conferred under the Historic Buildings and Ancient Monuments Act, 1983 (as amended). In terms of Defence Heritage Records a number of sites have been scheduled for protection under the Historic Monuments and Archaeological Objects (NI) Order 1995 (external link opens in a new window / tab). These include a fighter pilot dome trainer, which is unique in Northern Ireland,		

	and a variety of pill boxes. Other sites have been Listed for protection under Section 80 of the Planning Act (NI) 2011(external link opens in a new window / tab), such as the control tower and associated buildings at Langford Lodge, Crumlin.[77]		
Parks and Gardens	There are currently around 252 sites on the register of Historic Parks, Gardens and Demesnes in Northern Ireland. Additionally, a further 150 sites have been identified as having a high level of interest and are included as an appendix to the main Register as designated 'Supplementary' sites[78].	There are 79 Historic Parks and Gardens, both registered and supplementary, within the ETP area.	Antrim & Newtownabbey Borough Council: ▪ Four Registered sites ▪ Six supplementary sites Ards & North Down Borough Council: ▪ 11 Registered sites ▪ Five supplementary sites Belfast City Council ▪ 19 Registered sites ▪ Three supplementary sites Lisburn & Castlereagh City Council: ▪ Six Registered sites ▪ Six supplementary sites Mid & East Antrim Borough Council ▪ Ten Registered sites ▪ Nine supplementary sites
	Explanatory Text and anticipated future trends: The Register of Parks, Gardens and Demesnes of Special Historic Interest was established in the late 1990s to identify those sites that can be considered of exceptional importance within Northern Ireland. Sites are included in the Register on the basis of criteria that align with the Florence Charter, as assessed by professional experts within Historic Environment Division. They are then graded as category A*, A, or B to reflect their heritage significance, depending on how many of the criteria are met. The criteria for inclusion in The Register of Parks, Gardens and Demesnes of Special Historic Interest, and for grading the sites are[79]: ▪ Good survival of the site's design ▪ The site's significance in design history and historical association		

[77] Department for Communities (2024) *Defence Heritage.* Available Defence Heritage | Department for Communities (communities-ni.gov.uk)

[78] Department for Communities (2021) *Historic Parks, Gardens and Demesnes*. Available: https://www.communities-ni.gov.uk/articles/historic-parks-gardens-and-demesnes

[79] Department for Communities (2022) *Parks and Gardens.* Available: Parks and Gardens 2022 (communities-ni.gov.uk)

	▪ The aesthetic and artistic quality of the site ▪ The site's horticultural/arboricultural Interest and Importance ▪ The site's architectural buildings and structures ▪ The archaeological interest and significance of the site ▪ The nature conservation value of the site ▪ The site's contribution to local landscape There are also numerous unregistered parks and gardens in the ETP area. Whilst they are non-statutory designations, they remain relevant considerations for local planning and developments. **New development within the plan area may result in pressure on areas of importance for their cultural heritage and aesthetic quality and there is a requirement for them to be preserved and enhanced**.		
Heritage at Risk	There are numerous heritage assets designated to be on the heritage at risk register throughout Northern Ireland. As of 2023, there were 1039 buildings on the register[80].	Within the ETP area there is Heritage at Risk throughout the region, with the greatest number concentrated around Belfast.[81]	Reported at regional and national level only.
	Explanatory Text and anticipated future trends: The vast majority of heritage assets in Northern Ireland are well looked after, but a small proportion (around 5% of listed buildings) are considered to be at risk.[82] This may be because they are; ▪ long-term vacant ▪ neglected and/or poorly maintained ▪ structurally unsound ▪ damaged by fire ▪ unsecured and in danger of loss ▪ threatened with demolition		

[80] Ulster Architectural Heritage (2023) *Heritage at Risk Northern Ireland (H.A.R.N.I).* Available: Heritage at Risk Northern Ireland (H.A.R.N.I) - UAH

[81] DfC (2025) Historic Environment Map Viewer. Available: Historic Environment Map Viewer (arcgis.com)

[82] Department for Communities (2024) *Heritage at Risk.* Available: Heritage at Risk | Department for Communities

C.6 Landscape

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
National Parks	There are 15 National Parks in the UK[83]: ▪ Brecon Beacons ▪ Broads ▪ Cairngorms ▪ Dartmoor ▪ Exmoor ▪ Lake District ▪ Loch Lomond & The Trossachs ▪ New Forest ▪ North York Moors ▪ Northumberland ▪ Peak District ▪ Pembrokeshire Coast ▪ Snowdonia ▪ South Downs ▪ Yorkshire Dales There are no national parks in Northern Ireland.	There are no National Parks in the ETP area.	There are no National Parks in the ETP area.

Explanatory Text and anticipated future trends:

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them.

The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales. In addition, the Environment Act 1995 requires relevant authorities to have regard for nature conservation.

While the Northern Ireland takes in important areas of landscape features there are presently no National Parks within the country.

[83] National Parks UK (2024) *Parks.* Available: Parks - National Parks

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
Areas of Outstanding Natural Beauty / National Landscapes	There are 46 AONBs / National Landscapes located within the UK[84], 8 of which are located in Northern Ireland, covering almost a quarter of the nation's land area[85] : ▪ Antrim Coast and Glens ▪ Binevenagh ▪ Causeway Coast ▪ Lagan Valley ▪ Mourne ▪ Ring of Gullion ▪ Sperrin ▪ Strangford Lough	There are three AONBs / National Landscapes either entirely or partially within the ETP region. These are: ▪ Strangford and Lecale ▪ Antrim Coast and Glens ▪ Lagan Valley	Antrim & Newtownabbey Borough Council: ▪ N/A Ards & North Down Borough Council: ▪ Strangford and Lecale Belfast City Council: ▪ Lagan Valley Lisburn & Castlereagh City Council: ▪ Lagan Valley Mid & East Antrim Borough Council: ▪ Antrim Coast and Glens
	Explanatory Text and anticipated future trends: AONBs are designated under the National Parks and Access to the Countryside Act 1949, amended in the Environment Act 1995. The Countryside and Rights of Way Act 2000 clarifies the procedure and purpose of designating AONBs. They protect the land to conserve and enhance its natural beauty. There is a need to **protect landscape character (including that of the AONBs) from potential threats. This includes issues such as inappropriate development, lack of appropriate management and climate change**. Without a co-ordinated strategic approach to development and infrastructure degradation of the special qualities of the AONBs within the region is more likely to result. Locations of AONBs in Northern Ireland are shown in **Appendix D**.		
Landscape Character Areas	The Northern Ireland Landscape Character Assessment subdivides the countryside into 130 Landscape Character Areas, each based upon local patterns of geology, landform, land use, cultural and ecological features[86].	There are 52 landscape character areas within or intersecting the ETP area.	Antrim & Newtownabbey Borough Council: ▪ 17 LCAs Ards & North Down Borough Council:

[84] The National Association of Areas of Outstanding Natural Beauty (2017) *Areas of Outstanding Natural Beauty*. Available: http://www.landscapesforlife.org.uk/

[85] Overview map of the UK's Areas of Outstanding Beauty (landscapesforlife.org.uk)

[86] Department of Agriculture, Environment and Rural Affairs (2017) *Landscape Character of Northern Ireland*. Available: https://www.daera-ni.gov.uk/articles/landscape-character-northern-ireland

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	The Northern Ireland Regional Landscape Character Assessment provides a strategic overview of the landscape in Northern Ireland and subdivides the countryside into 26 Regional Landscape Character Areas based upon information on people and place and the combinations of nature, culture and perception which make each part of Northern Ireland unique[87].		▪ 12 LCAs Belfast City Council: ▪ 11 LCAs Lisburn & Castlereagh City Council: ▪ 23 LCAs Mid & East Antrim Borough Council: ▪ 20 LCAs
	Explanatory Text and anticipated future trends: Landscape Character Areas or Landscape Character Assessments encompass various aspects of landscape, biodiversity, heritage, cultural and geological features. These are non-statutory and used as an aid in the planning process and for decision making. Each LCA profile produced by NIEA includes a description of the natural and cultural features that shape our landscapes, how the landscape condition and sensitivity to change and principles for landscape management and principled for accommodating new development. Detail on Northern Irelands Regional Landscape Character Areas can be viewed on DAERAs map viewer: https://daerani.maps.arcgis.com There is a need to **protect landscape character from potential threats. This includes issues such as inappropriate development, lack of appropriate management and climate change**. **Without a co-ordinated strategic approach to development and infrastructure degradation of the special qualities of the AONBs within the plan area is more likely to result.** Locations of the LCAs in the region are shown in **Appendix D**.		
Regional Seascape Character	The Northern Ireland Seascape Character Assessment comprises 24 areas around the coast of Northern Ireland. They are defined as a 'unique geographic area of land, intertidal	There are eight Regional Seascape Character Areas (RSCA) within or intersecting the ETP area[89].	Antrim & Newtownabbey Borough Council: ▪ Belfast Lough RSCA Ards & North Down Borough Council: ▪ Belfast Lough RSCA ▪ Ards Peninsula RSCA

[87] DAERA (2024) *Landscape Character of Northern Ireland.* Available: Landscape Character of Northern Ireland | Department of Agriculture, Environment and Rural Affairs

[89] NIEA Natural Environment Map Viewer

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	and marine area with a recognisable sense of place and identity.'[88]		▪ Strangford Lough RSCA Belfast City Council: ▪ Belfast Harbour RSCA ▪ Belfast Lough RSCA Lisburn & Castlereagh City Council: None identified Mid & East Antrim Borough Council: ▪ Northern Glens Coast RSCA ▪ Southern Glens Coast RSCA ▪ The Gobbins RSCA ▪ Larne Lough RSCA ▪ Belfast Lough RSCA
	Explanatory Text and anticipated future trends: The identification of Seascape Character Areas is aimed to contribute to the aims of the European Landscape Convention through promoting the protection, management and planning of the seascape, and to support European cooperation on landscape issues. There are over 650 kilometres of contrasting coastline, with a rich variety of wildlife, and a diverse built and cultural heritage. The seascape is an important part of national and local identity with Northern Ireland's largest cities and towns situated in coastal areas. The seascapes of Northern Ireland are subject to change as a result of both natural and manmade influences including: ▪ Natural processes and climate change; ▪ Visitor pressure and recreational activity; ▪ Commercial marine activity and fishing; ▪ Offshore energy and mineral development; ▪ A range of development pressures along the coast; and		

[88] Department of Agriculture, Environment and Rural Affairs (2014) *Northern Ireland Regional Seascape Character Assessment*. Available: Northern Ireland Regional Seascape Character Assessment | Department of Agriculture, Environment and Rural Affairs

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	▪ Land management changes.		
Designated Dark Skies	There are 7 International Dark Sky Reserves within the UK, none of which situated in Northern Ireland. OM Dark Sky Park is located in Davagh Forest in Northern Ireland and is one of two Dark Sky Parks on the island of Ireland and is the 78th area in the world to be accredited as an International Dark Sky Park.[90]	There are no Designated Dark Skies in the ETP area.	There are no Designated Dark Skies in the ETP area.

Explanatory Text and anticipated future trends:

An International Dark Sky Reserve (IDSR)[91] is a public or private land of substantial size (at least 700 km², or about 173,000 acres) possessing an exceptional or distinguished quality of starry nights and nocturnal environment, and that is specifically protected for its scientific, natural, educational, cultural heritage, and/or public enjoyment.

The IDSR consists of two regions:

1) A “core” area meeting the minimum criteria for sky quality and natural darkness; and
2) A “peripheral” or “buffer” area that supports dark sky values in the core and receives similar benefits.

The IDSR is formed through a partnership of landowners and/or administrators that recognize the value of the natural night-time environment through regulations, formal agreements, and long term planning.

[90] OM Dark Sky Park (2024) *Darvagh Forest.* Available: Landscape Character of Northern Ireland | Department of Agriculture, Environment and Rural Affairs

[91] International Dark Sky Association (2018) *International Dark Sky Reserve Program Guidelines – June 2018*. Available: https://www.darksky.org/wp-content/uploads/2018/12/IDSR-Guidelines-2018.pdf

C.7 Soils, Geology and Land-use

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
Agricultural Land Classifications	The Agricultural Land Classification system classifies land into five grades, with Grade 3 subdivided into Sub-grades 3a and 3b. The best and most versatile agricultural land is defined as Grades 1, 2 and 3a of the Agricultural Land Classification (ALC) system. There are no published ALC maps for Northern Ireland apart from a very generalised, small scale map[92].	N/A	N/A

Explanatory Text and anticipated future trends:

ALC uses a grading system to assess and compare the quality of agricultural land at national, regional and local levels. It assesses the potential for land to support different agricultural uses, such as growing crops for food. It does not consider the land's current use and intensity of use. Policies for the protection of agricultural land and consultation on rural planning matters are the responsibility of the Department of Agriculture, Environment and Rural Affairs.

A combination of climate, site and soil characteristics and their unique interaction determines the limitation and grade of the land. These affect the:

- range of crops that can be grown;
- yield of crop;
- consistency of yield; and
- cost of producing the crop.

When considering development proposals that affect agricultural land, developers and LPAs should aim to protect the best and most versatile (BMV) agricultural land and soils in England from significant, inappropriate or unsustainable development proposals. BMV agricultural land is graded 1 to 3a. The highest grade goes to land that[93]:

[92] British Society of Soil Science (2022) *Guidance Document 2: Soils and Land Quality: How to find online maps and data sets.* Available: Microsoft Word - Soils and Land Quality - Jan 2022.docx

[93] Natural England (2018) *Guide to assessing development proposals on agricultural land*. Available: https://www.gov.uk/government/publications/agricultural-land-assess-proposals-for-development/guide-to-assessing-development-proposals-on-agricultural-land

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	▪ gives the highest yield or output; ▪ has the widest range and versatility of use; ▪ produces the most consistent yield from a narrower range of crops; and ▪ requires less input. There is **increased potential for development to occur in areas which would affect higher value agricultural land without a co-ordinated strategic approach to development and infrastructure in the region.**		
Geological ASSIs	Of the coastal ASSIs identified in Northern Ireland, the following were noted as having special geological scientific interest[94]: ▪ Carlingford Lough ▪ Castle Point ▪ Fair Head and Murlough Bay ▪ Galboly ▪ Larne Lough ▪ Mourne Coast ▪ Outer Ards ▪ Rathlin Island Coast ▪ Samuel's Port ▪ St John's Point ▪ The Gobbins In Northern Ireland, a total of 111,159 ha across 394 sites were declared ASSIs.	There are approximately 31 Geological ASSIs in the ETP area.	Geological features are included in the designation of the following ASSIs: Antrim & Newtownabbey Borough Council: ▪ Outer Belfast Lough ▪ Lough Neagh ▪ Aghnadarragh ▪ Ballypalady ▪ Tardree Quarry ▪ Sandry Braes Ards & North Down Borough Council: ▪ Outer Belfast Lough ▪ Whitespots ▪ Scrabo ▪ Tieveshilly ▪ Outer Ards Belfast City Council: ▪ Bellevue Lisburn & Castlereagh City Council: ▪ Belshaws Quarry ▪ Lough Neagh

[94] DAERA *Coastal Areas of Special Scientific Interest.* Available: Coastal Areas of Special Scientific Interest | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)

National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
		▪ Clarehill ▪ Mid & East Antrim Borough Council: ▪ Black Burn ▪ Garron Plateau ▪ Scawt Hill ▪ Waterloo ▪ Portmuck ▪ Culnafay ▪ Larne Lough ▪ Outer Belfast Lough ▪ Cloghfin Port ▪ Glarryford ▪ Little Deer Park ▪ Linford ▪ Minnis ▪ Galboly ▪ Kilcoan ▪ Carneal

Explanatory Text and anticipated future trends:

Areas of Special Scientific Interest (ASSI) are protected areas that represent the best of our wildlife and geological sites that make a considerable contribution to the conservation of our most valuable natural places. They are designated to help prevent loss of Biodiversity (which is the great variety of plants and animals that support life on earth) and Geodiversity (the rocks, minerals, fossils, soils and landforms that have been formed over millions of years and determine our landscapes and the species that live there).

Northern Ireland is one of the most geologically diverse areas in the world, from ancient sediments more than 600 million years old to glaciated valleys formed when ice retreated 14,000 years ago.

Geology in the ETP Region is likely to face threats from development; human activities such as pollution, roads, disturbance, farming practices; loss of habitat; loss of food sources and a changing climate. **Without a co-ordinated strategic approach to development and infrastructure is likely to increase the potential for inappropriate greenfield development to occur which could increase pressures on ASSIs designated for their geological importance**.

The locations of Geological ASSIs are included alongside the other ASSIs ETP Region in **Appendix D.**

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
Contaminated Land	As of 2023[95], historical land use datasets identify approximately 14,591 sites. These are designated due to past specific land uses, past activities or pollution events by DEFRA. As of 2024[96], there are 54 special sites of contaminated land in England. These are sites that due to specific land uses, past activities or water pollution are passed from the local council to the Environment Agency to regulate. The National Planning Policy Framework places the onus with the developer and/or landowner for securing a safe land/development.	There are over 4,000 areas of historical land use within the ETP region. These include mineral workings, railway land, military installations, airports and engineering works.[95]	Reported at Regional Level.

Explanatory Text and anticipated future trends:

Land is legally defined as 'contaminated land' where substances are causing or could cause:

- Significant harm to people, property or protected species;
- Significant pollution of surface waters (for example lakes and rivers) or groundwater; and
- Harm to people as a result of radioactivity.

Land may be contaminated by various substances including:

- Heavy metals such as arsenic, cadmium and lead;
- Oils and tars;
- Chemical substances and preparations, like solvents;
- Gases;
- Asbestos; and
- Radioactive substances.

[95] DAERA (2023) *Historical Landuse Dataset.* Available: Historical Landuse Dataset | DAERA Open Data

[96] Environment Agency (2019) *Contaminated Land Special Sites*. Available: https://data.gov.uk/dataset/e3770885-fc05-4813-9e60-42b03ec411cf/contaminated-land-special-sites

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
Green Belt	As of April 2018, there are 58 green belts across the UK, 30 of which are situated in Northern Ireland[97].	Reported at National level only.	Reported at National level only.
	Explanatory Text and anticipated future trends: Green Belt Policy in Northern Ireland is currently set out in Regional Planning Policy GB/CPA 1 Designation of Green Belts and Countryside Policy Areas (CPAs). Whilst this document is technically still a live planning instrument, Planning Policy Statement 21 – 'Sustainable Development in the Countryside' and the supporting Supplementary Planning Guidance (SPG) 'Building on Tradition' 2010 take precedence. Furthermore, the new Strategic Planning Policy Statement (SPPS 2015), which will supersede PPS21, makes no reference to Green Belt, stating the following in in relation to preparation of Local Development Plans: '*Development in the countryside must not mar the distinction between a settlement and the surrounding countryside, or result in urban sprawl*.' Policy GB/CPA 21 defines the development that is appropriate to a Green Belt or CPA, but also makes it clear that to be acceptable, even those types of development must respect the open character and environmental qualities of these rural policy areas in terms of their visual amenity and local impact. Protection of these qualities is paramount and in certain special landscapes of national importance, within Green Belts or CPAs, no development at all will be permitted unless it is in the wider public good.[98] In spite of its strong protection through national planning policy Green Belt may come under pressure as areas are targeted for potential release and development in inappropriate locations as housing needs increase. There is **increased potential for Green Belt land that has not been identified as suitable for strategic growth to be subject to development without a co-ordinated strategic planning approach.**		
Geoparks	There are currently 10 UNESCO global geoparks within the UK, two of which are located in Northern Ireland[99]: ▪ Black Country (England) ▪ English Riviera ▪ Fforest Fawr (Wales) ▪ GeoMon (Wales)	One site in the ETP area is currently being explored to establish a UNESCO Geoparks site - Antrim Geopark (Northern Ireland)[100]. If established the Geopark would recognise the significant geological, historical and cultural heritage of the area, covering both the Mid and East Antrim Council and Causeway Coast and Glens Council.	Antrim & Newtownabbey Borough Council: N/A Ards & North Down Borough Council: N/A

[97] Landscape Institute (2018) *Green Belt Policy.* Available: li-green-belt-briefing-apr-2018.pdf
[98] Landscape Briefing (2018) *Green Belt Policy*. Available: (li-green-belt-briefing-apr-2018.pdf (windows.net))
[99] British Geological Survey (2025) *Geoparks.* Available: Geoparks - British Geological Survey (bgs.ac.uk)
[100] Antrim Geopark (2025) Available: www.antrimgeopark.org

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	▪ Cuilcagh Lakelands (Northern Ireland) ▪ Mourne, Gullion, Strangford (Northern Ireland) ▪ North Pennines (England) ▪ North-west Highlands (Scotland) ▪ Shetland (Scotland) ▪ Isle of Arran (Scotland) There are also a number of Aspiring UNESCO Global Geoparks in the UK. There are two UNESCO global geoparks in Northern Ireland as identified above. Straddling the border between Co. Fermanagh in Northern Ireland and Co. Cavan in the Republic of Ireland, the Cuilcagh Lakelands UNESCO Global Geopark was the first area in the UK recognised as a Geopark in 2001 and became the first transnational Geopark in the world in 2008. The geology of the Geopark covers a vast array of geological time, starting with the oldest Precambrian rocks and continuing to the present day with the active formation of cave and karst features. The Mourne Gullion Strangford UNESCO Global Geopark is located in the south-east of Northern Ireland, adjacent to the border with the Republic of Ireland. The UNESCO Global Geopark has an area of 1931.62 sq km (1637 sq km on land and 294.12 sq km marine), and a population of 182,074 (2021) with over a quarter of the population living in the city of Newry in the heart of the Geopark. The region boasts three discrete upland regions in the Dromara Hills, Mourne Mountains, and Slieve Gullion. The highest point in the region is within the Mourne Mountains and is Slieve Donard at 850 metres above sea level		Belfast City Council: N/A Lisburn & Castlereagh City Council: N/A Mid & East Antrim Borough Council: ▪ Potential establishment of Antrim Geopark

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	but the Mournes have seven peaks over 700 metres.		
	Explanatory Text and anticipated future trends: Geoparks are endorsed by UNESCO and are not designated under legislation. They are locally-led partnerships within areas of internationally significant geology that work to support sustainable economic development of the area, primarily through geological and eco-tourism[101]. There is one designated Geopark in Northern Ireland, however, it does not lie within the ETP Region.		
Open Green Space	There are many green open spaces in Northern Ireland. Types of these include[102]: ▪ Coasts and beaches ▪ Parks and public playing fields ▪ Country parks ▪ Forests ▪ AONBs ▪ Nature Reserves	Detailed at Council Area Level.	A summary of some of the areas of open green space within each of the council areas is as follows: Antrim & Newtownabbey Borough Council: ▪ 19 Parks[103] ▪ 7 Pavilions ▪ 11 Green Flag Sites Ards & North Down Borough Council: ▪ 5 parks have received the green flag award. ▪ Over 290 hectares of open spaces throughout the Borough[104] Belfast City Council: ▪ 50 Parks[105] Lisburn & Castlereagh City Council: ▪ 6 Parks and Gardens[106]

[101] United Kingdom National Commission for UNESCO (2017) *Global Geoparks.* Available: http://www.unesco.org.uk/designation/geoparks/
[102] NIDirect (2024) *Parks and green spaces.* Available: Parks and green spaces | nidirect
[103] Antrim and Newtownabbey Borough Council (2025) *Parks.* Available: Parks - Antrim & Newtownabbey Borough Council (antrimandnewtownabbey.gov.uk)
[104] Ards and North Down Borough Council (2025) *Introduction to Parks.* Available: Introduction to Parks - Ards and North Down Borough Council
[105] Belfast City Council (2024) *Belfast Parks.* Available: All parks and open spaces in Belfast (belfastcity.gov.uk)
[106] Lisburn and Castlereagh City Council (2025) *Parks and open spaces.* Available: Playing Fields & Bowling Greens (lisburncastlereagh.gov.uk)

National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
		▪ 14 Playing Fields and 3 Bowling Greens Mid & East Antrim Borough Council: ▪ 7 parks awarded the National Green Flag standard[107]

Explanatory Text and anticipated future trends:

Open space, which includes all open space of public value, can take many forms, from formal sports pitches to open areas within a development, linear corridors and country parks. It can provide health and recreation benefits to people living and working nearby; have an ecological value and contribute to green infrastructure, as well as being an important part of the landscape and setting of built development, and an important component in the achievement of sustainable development[108].

The Northern Ireland Sustainable Development Strategy updated in 2010 recognises that access to a clean and attractive countryside supports a sense of social wellbeing. A community planning toolkit was produced in 2012 to assist future development of community planning by Councils[109].

Local authorities play a vital role in[110]:

- providing new, good quality greenspace that is inclusive and equitable
- improving, maintaining and protecting existing greenspace
- increasing green infrastructure within public spaces and promoting healthy streets
- improving transport links, pathways and other means of access to greenspace, and providing imaginative routes linking areas of greenspace for active travel

Without a co-ordinated strategic approach to development and infrastructure, there is increased potential for planning decisions to result in inappropriate development, which could fragment existing networks of open space thereby reducing connectivity.

[107] Mid and East Antrim Borough Council (2025) *Parks and Open Spaces.* Available: Parks and Open Spaces | Mid and East Antrim Borough Council

[108] MHCLG (2014) *Open space, sports and recreation facilities, public rights of way and local green space*. Available: https://www.gov.uk/guidance/open-space-sports-and-recreation-facilities-public-rights-of-way-and-local-green-space

[109] Department of Agriculture, Environment and Rural Affairs (2013) *State of the Environment Report*. Available: https://www.daera-ni.gov.uk/sites/default/files/publications

[110] Public Health England (2020) *Improving access to greenspace – A new review for 2020*. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904439/Improving_access_to_greenspace_2020_review.pdf

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
Existing and Consented Urban Areas	93% of Northern Ireland's population live within 30 minute drive-time of the town centre of a settlement containing a population of at least 10,000.	Major settlements within the ETP region include but are not limited to the following:[111] ▪ City ▫ Belfast ▪ Large Town ▫ Metropolitan Newtownabbey ▫ Bangor ▫ Metropolitan Castlereagh ▫ Lisburn City ▫ Metropolitan Lisburn ▫ Ballymena ▫ Carrickfergus ▫ Newtownards ▫ Antrim ▫ Larne ▪ Medium Town ▫ Hollywood ▪ Small Town ▫ Ballyclare ▫ Comber ▫ Carryduff ▫ Donaghadee ▫ Greenisland ▫ Randalstown ▫ Crumlin ▪ Intermediate Settlement ▫ Ahoghill	Reported at National and Regional Level.

[111] NISRA (2015) *Review of the Statistical Classification and Delineaion of Settlements*. Available: Review of the Statistical Classification and Delineation of Settlements | Northern Ireland Statistics and Research Agency

National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	▫ Moira ▫ Hillsborough and Culcavy ▫ Broughshane ▫ Portaferry ▫ Ballygowan ▪ Village ▫ Ballywalter ▫ Doagh ▫ Helen's Bay ▫ Annahilt	

Explanatory Text and anticipated future trends:

- The statistical classification of settlements in Northern Ireland are as follows:
- Band A: Belfast Metropolitan Urban Area (BMUA)
- Band B: Derry Urban Area (DUA)
- Band C: Large town - 18,000 or more and under 75,000
- Band D: Medium town - 10,000 or more and under 18,000
- Band E: Small town - 4,500 or more and under 10,000
- Band F: Intermediate settlement - 2,250 or more and under 4,500
- Band G: Village - 1,000 or more and under 2,250
- Band H: Small village, hamlet and Settlements of less than 1,000 open countryside people and open countryside.

C.8 Water Quality and Resources

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
Water Framework Directive (WFD)	As of 2020, in Northern Ireland, the total number of water bodies was 492, including 446 rivers and canals, 25 estuaries and coastal, and 21 lakes. The quality status of water bodies assessed under the WFD were [112]: Rivers and Canals: ▪ High – 0% ▪ Good – 31% ▪ Moderate – 57% ▪ Poor – 9% ▪ Bad – 2% Estuaries and Coastal: ▪ High – 0% ▪ Good – 40% ▪ Moderate – 56% ▪ Poor – 4% ▪ Bad – 0% Lakes: ▪ High – 0% ▪ Good – 24% ▪ Moderate – 29% ▪ Poor – 33%	In line with the WFD, River Basin Management Plans (RBMPs) are relevant for the ETP Region and the status of waterbodies. Local government is involved in regulating, operating, influencing and undertaking projects in the river basin district (RBD) of the associated RBMP. The ETP region is located within the North Eastern and Neagh Bann RBDs. As of 2015, the status of surface water bodies in the RBDs stated are as follows[113]: North Eastern RBD: Good or Better – 24% ▪ Moderate – 61% ▪ Poor – 13% ▪ Bad – 2% Neagh Bann[114]: ▪ Good or better – 26% ▪ Moderate – 57% ▪ Poor – 11% ▪ Bad – 4% ▪ Not classified – 2%	Antrim & Newtownabbey Borough Council: ▪ Lakes ▫ Lough Neagh ▫ Lough Beg ▫ Ballynoe Pond (Ballywoodock) ▫ Freemanstown Pond ▫ Mossley Ponds ▪ Rivers ▫ There are approximately 950 WFD river segments Ards & North Down Borough Council: ▪ Lakes ▫ Altmore Reservoir - pond ▪ Rivers ▫ There are approximately 500 WFD river segments Belfast City Council: ▪ Lakes ▫ Legionel South Pond ▪ Rivers ▫ There are approximately 260 WFD river segments Lisburn & Castlereagh City Council:

[112] JNCC (2024) *Surface water status.* Available: UKBI - B7. Surface water status | JNCC - Adviser to Government on Nature Conservation
[113] DAERA (2015*) North Eastern River Basin District.* Available: North Eastern River Basin District | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)
[114] DAERA (2015*) Neagh Bann Basin District.* Available: Neagh Bann River Basin District | Department of Agriculture, Environment and Rural Affairs

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	▪ Bad – 14%	Of the groundwater bodies which are classified as good or poor for chemical status, the following classification were set in 2015: North Eastern RBD: ▪ Good – 6 ▪ Poor - 8 Neagh Bann RBD: ▪ Good – 6 ▪ Poor - 10	▪ Lakes ▫ Lough Neagh ▫ Stonyford Reservoir ▫ Portmore ▫ Mckees Dam ▫ Lough Aghery ▫ Cuntagh Lough ▫ Kilrootsy Lough (Sandymount) ▫ Duncan's Reservoir ▫ Begney Lake ▫ Lough Henny ▫ Clontanagullion Lough ▫ Lough Erne (Lisburn) ▫ Monlough ▪ Rivers ▫ There are approximately 570 WFD river segments <u>Mid & East Antrim Borough Council:</u> ▪ Lakes ▫ Killylane Reservoir ▫ Lough Mourne ▫ Woodburn Middle Reservoir ▫ Woodburn Upper Reservoir ▫ Lough Beg ▫ Loughisland ▫ Dungonnell Dam ▫ Lough Fad ▫ Loughnabrick ▫ Loughascraban ▫ Loughmagarry (Gardnerstown)

National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
		▫ Mount Pleasant Pond ▫ Park Ward Lake (Ballymena Pond) ▫ Duneoin Pond ▪ Rivers ▫ There are approximately 2,950 WFD river segments

Explanatory Text and anticipated future trends:

The EU WFD is transposed into UK law through the following regulations: The Water Environment (WFD) (England and Wales) Regulations 2017 for England and Wales; the Water Environment and Water Services (Scotland) Act 2003 (WEWS Act) and The Water Environment (WFD) Regulations (Northern Ireland) 2003) for Northern Ireland.

The purpose of the Directive is to establish a framework for the protection of inland surface waters (rivers and lakes), transitional waters (estuaries), coastal waters and groundwater. Groundwater is an important natural resource that supports river flows as well as ecological diversity in rivers, lakes and wetlands. It is also available for use, across the United Kingdom, for water supply by abstraction from boreholes, wells and springs.

The number of waterbodies assessed each year varies and has decreased from 10,761 in 2009 to 9,300 in 2018. There was a small increase in the overall number of water bodies awarded high or good surface water status between 2009 and 2022. In 2022, approximately 33% of surface water bodies assessed under the WFD in the UK were in high or good status. This reflects very little change from approximately 32% of surface water bodies assessed in 2009 and 32% in 2018[115].

The North Eastern RBD[113] indicates that only 24% of its overall number of surface water bodies are at good or better overall status. This is aimed to increase to 52% by 2021.The Neagh Bann RBD[114] indicates that a slightly higher 26% of its overall number of surface water bodies are at good or better overall status, and is aimed to increase to 68% by 2021. The UK also aims to reach good chemical and ecological status in inland and coastal waters by 2027.

RBMPs are prepared in line with the WFD to protect and improve the quality of our water environment. The RBMPs support the government's framework for the 25-year environment plan and will allow local communities to find more cost-effective ways to take action to further improve our water environment[116].

[115] Joint Nature Conservation Committee (2024) *Surface Water Status – Datasheet*. Available: UK Biodiversity Indicators 2024. Surface water status | JNCC Resource Hub

[116] DEFRA and Environment Agency (2019) *River basin management plans: 2015*. Available: https://www.gov.uk/government/collections/river-basin-management-plans-2015

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	Two significant sources of pressure preventing water bodies from achieving good status in the North Eastern RBD were identified. These are diffuse pressures from agricultural sources and point source pressures from urban wastewater and development. In Neagh Bann RBD the two significant sources of pressure identified were agricultural sources and point source pressures from WWTWs and industrial discharges. **Without a coordinated approach to development and infrastructure there is increased potential for pollution to result at water bodies in the ETP Region**.		
Transitional and Coastal Waterbodies Surface water Quality (Marine)	There are 25 transitional and coastal waterbodies within Northern Ireland with surface water status' under the Water Framework Cycle 2 (2015-2021)[117]. Classifications for surface water among these waterbodies range between bad, poor, moderate, good and high.	10 of these coastal waterbodies are located within the ETP region.	The listed coastal waterbodies had the following surface water status' in 2021: <u>Antrim & Newtownabbey Borough Council</u>: ▪ Belfast Lough Inner – Moderate <u>Ards & North Down Borough Council</u>: ▪ Belfast Lough Inner - Moderate ▪ Belfast Lough Outer – Moderate ▪ Ards Peninsula – Moderate ▪ Strangford Lough South – Moderate ▪ Strangford Lough North – Moderate <u>Belfast City Council:</u> ▪ Belfast Harbour – Moderate Ecological Potential <u>Lisburn & Castlereagh City Council</u>: N/A <u>Mid & East Antrim Borough Council</u>: ▪ North Channel – Good ▪ Larne Lough North – Moderate Ecological Potential

[117] DAERA (2025) *Northern Ireland Marine Map Viewer*. Available: https://gis.daera-ni.gov.uk/arcgis/apps/webappviewer

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
			▪ Larne Lough South - Moderate ▪ Larne Lough Mid – Moderate ▪ Belfast Lough Outer - Moderate
	Explanatory Text and anticipated future trends: The Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017. The Water (Amendment) (Northern Ireland) (EU Exit) Regulations 2019 ensures that the Water Framework Directive (WFD) (as transposed) and the various supporting pieces of water legislation are implemented in Northern Ireland. The legislation defines 6 year cycles of monitoring and action to improve or maintain environmental water quality standards. Water bodies are the basic management units for monitoring, reporting and assessing compliance with the Water Environment Regulations' environmental objectives[118]. The percentage of transitional and coastal waterbodies that 'passed' (good or better) increased from 36% to 40% between 2015 and 2018, overall indicating an improvement to the water quality of these coastal waterbodies. The percentage that 'failed' (moderate or worse) therefore showed an overall decrease from 64% to 60%. Overall, two waterbodies water quality deteriorated and three improved over that same timeframe[119]. From the most recent monitoring that took place in 2021, all waterbodies have deteriorated into the 'fail' category[118].		
Coastal Erosion	The Baseline Study and Gap Analysis of Coastal Erosion Risk Management NI document published in 2018 describes the Northern Ireland coastline in five separate sections[120]: ▪ North Coast ▪ Antrim Coast ▪ Outer Ards Coast ▪ South Down Coast ▪ Sea Loughs	Data shown at local level.	The following lengths of coastline for each local authority were given the following risk levels for physical assets[121], historic assets [122] and natural assets[123]: Antrim & Newtownabbey Borough Council: *Physical Assets* ▪ High – 30km ▪ Moderate – None ▪ Low – None *Historic Assets*

[118] WFD River Water Bodies 2nd Cycle - Dataset - Open Data NI

[119] DAERA (2019) *Planning for the third cycle River Basin Plan 2021-2027 – Consultation on Significant Water Management Issues.* Available: Consultation on Significant Water Management Issues December 2019.PDF

[120] DFI (2019) *Baseline Study and Gap Analysis of Coastal Erosion Risk Management NI.* Available: Coastal Erosion Risk Management NI

[121] Open Data NI (2019) *NI Coastal Vulnerability Assessment Physical Assets.* Available: Portal | NI Coastal Vulnerability Assessment Physical Assets

[122] Open Data NI (2019) *NI Coastal Vulnerability Assessment Historic Assets.* Available: Portal | NI Coastal Vulnerability Assessment Historic Assets

[123] Open Data NI (2019) *NI Coastal Vulnerability Assessment Natural Assets.* Available: Portal | NI Coastal Vulnerability Assessment Natural Assets

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	▪ As part of this study, a Coastal Vulnerability Assessment of Physical Assets was undertaken and is reported at a local level.		▪ High – 32km ▪ Moderate – None ▪ Low – 172km *Natural Assets:* ▪ High – 30km ▪ Moderate – None ▪ Low – None <u>Ards & North Down Borough Council</u>: *Physical Assets:* ▪ High – 155km ▪ Moderate – 43km ▪ Low – 335km *Historic Assets* ▪ High – 66km ▪ Moderate – None ▪ Low – 531km *Natural Assets:* ▪ High – 10,389 km ▪ Moderate – None ▪ Low – None <u>Belfast City Council:</u> *Physical Assets:* ▪ High – 90km ▪ Moderate – None ▪ Low – 8km *Historic Assets:* ▪ High – 6km ▪ Moderate – None ▪ Low – 83km *Natural Assets:* ▪ High – 27km ▪ Moderate – 1km

National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
		▪ Low – None Lisburn & Castlereagh City Council: ▪ N/A Mid & East Antrim Borough Council: *Physical Assets:* ▪ High – 562km ▪ Moderate – 4km ▪ Low – 73km *Historic Assets:* ▪ High – 32km ▪ Moderate – None ▪ Low – 172km *Natural Assets:* ▪ High – 163km ▪ Moderate – 511km ▪ Low – 87km

Explanatory Text and anticipated future trends:

One of the key aims of the Baseline Study and Gap Analysis of Coastal Erosion Risk Management NI document published in 2018, was to identify those areas where it is considered that coastal erosion may pose a significant risk that requires to be managed based on the potential impact to land, property and infrastructure. It is estimated that 32% of total the total coastline of Northern Ireland is subject to some form of coastal protection.

As part of the study, a high-level preliminary vulnerability assessment of coastal erosion along the Northern Ireland coast was undertaken utilising data which was available at the time. The high-level assessment consisted of two stages: an Erosion Risk Appraisal and a Vulnerability Assessment. The Vulnerability Assessment compared areas of high/medium/low erosion risk against physical asset value, historic asset value and natural asset value also at high/medium/low value.

Based on this assessment, much of the coastlines within the Antrim & Newtownabbey, Belfast City and Mid and East Antrim council area coasts are at high erosion risk with regard to their physical assets.

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
Coastal Change	Coastal Change within the Northern Ireland Coastal Observatory[124] is divided into four coastal cells, two of which intersect the ETP region. There are over 50 records of coastal change within the ETP area, details of which, including features of particular importance and or likely future shoreline behaviour, can be viewed at the following link in the Northern Ireland Coastal Observatory: https://experience.arcgis.com/experience/b8454f3d62164518817e4c581b5555c8/page/Maps?views=Map-Viewer According to Research carried out by the Ulster University in 2023 and funded by DAERA, the largest natural shoreline erosion levels across Northern Irelands coastline over 193 years[125] were recorded on the western side of Magilligan Point in County Londonderry, outside the ETP region. The largest shoreline advancement over the last two centuries was identified at Murlough near Newcastle in County Down also outside of the ETP region[126]. **Explanatory Text and anticipated future trends:** Future coastal change trends in Northern Ireland are shaped by a combination of natural processes and human activities, with climate change acting as a major accelerating factor. Here are the key trends and findings: ▪ Erosion Hotspots and Shoreline Change – There are erosion hotspots where significant erosion is found in certain areas, like the aforementioned Magilligan Point. Conversely, shoreline advancement is observed in places with historical human modifications such as land reclamation. ▪ Sea Level Rise - Northern Ireland is projected to experience at least 11 cm of sea-level rise by 2100, with worst-case scenarios suggesting up to 94 cm if global emissions are not curbed. This rise increases the risk of coastal flooding and erosion, particularly in low-lying and unprotected areas. ▪ Climate Change Impacts - The region is expected to face warmer, wetter winters and hotter, drier summers, which can exacerbate coastal erosion and flooding risks. Increased storm intensity and frequency may also contribute to coastal infrastructure vulnerability. ▪ Human Influence - Historical and ongoing human activities—such as harbour expansions, jetty construction, and land reclamation—have significantly altered natural sediment flows and shoreline dynamics. Some areas, like the Castlerock-Portstewart Strand, have seen sand accumulation due to man-made structures trapping sediment. ▪ Risk and Adaption - About 19.5% of Northern Ireland's coastline is currently eroding or at risk, and 32% has some form of manmade protection. The Climate Change Risk Assessment (CCRA3) identifies coastal flooding and erosion as key risks requiring further investigation and action.		

[124] Northern Ireland Coastal Observatory. *Northern Ireland Coastal Maps.* Available: Maps | Northern Ireland Coastal Observatory

[125] Ulster University (2023) Shifting Shores: Ulster University Researchers map 193 years of Northern Ireland coastline changes. Available: Shifting shores: Ulster University Researchers map 193 years of Northern Ireland coastline changes

[126] BBC (2023) Erosion: Researchers map Northern Ireland's changing coastline. Available: Erosion: Researchers map Northern Ireland's changing coastline - BBC News

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
Coastal Geomorphology	The Northern Ireland coastline is delineated into coastal cell boundaries which are used to calculate the sediment budget on a specific coastal sector and identify zones within which changes to the coast might affect adjacent coastal areas.[127] The coastal cells that intersect with the ETP area are: ▪ East Antrim (Whitehead to Fairhead) – Consists of a high topography rocky shoreline with sand and gravel deposits developed on low lying bedrock and shallow coastal indentations. The nett drift, driven by wind waves, generated in the Irish Sea, is probably toward the north, but the sub-cell structure has not been studied. It is bounded to the south by Belfast Lough and in the north by rocky shoreline around Fair Head, both of which form definite breaks in littoral sediment transport pathways. ▪ Outer Ards (Barr Hall to Ballymacormick Point) - The Outer Ards coast is a low topography rocky coast with several shallowly-indented bays within which sandy beaches have developed. These are separated by low rocky headlands and rock platforms. Well-developed embayed beaches exist at Millin Bay, Knockinelder, Cloghy, Portavogie, Ballyhalbert, Ballywalter, and Millisle, but a semi-continuous beach runs along the coastal margin where it rests on low gradient bedrock. ▪ Lecale (St John's Point to Strangford) - This largely rocky stretch of coast contains several indentations in which sand has accumulated (Killough, NE part of Ballyhornan Bay, Kilklief). These are separated by long stretches of rocky shoreline and are probably not dynamically connected to each other, although there is a series of small sandy beaches on the south side of the entrance to Strangford Lough that may be interconnected.		
Drinking Water Protected Areas	There are currently 26 classified Surface Drinking Water Protected Areas (SDWPA) in Northern Ireland as defined in Article 10 of the WFD in 2016. There are currently 66 classified Groundwater Drinking Water Protection Areas (GDWPA) in Northern Ireland as defined in WFD. All WFD Groundwater bodies have been defined as Drinking Water Protection Areas due to the potential for abstractions of water for human consumption as stated in Article 7 of the WFD[128].	There are six SDWPAs within the ETP region in 2022. Within this region, there are also 12 GDWPAs in 2022.	Of the six SDWPAs within the ETP region, the following are located within each local council area: Antrim & Newtownabbey Borough Council: ▪ Dorisland ▪ Lough Neagh (Dunore, Castor Bay, Moyola) Ards & North Down Borough Council: N/A Belfast City Council: N/A Lisburn & Castlereagh City Council: ▪ Lough Neagh (Dunore, Castor Bay, Moyola)

[127] DAERA (2025) *NI First Order Coastal Cell Delineation*. Available: Data Details -NI First Order Cells Delineation | Northern Ireland Coastal Observatory

[128] OpenDataNI (2016) *Groundwater Drinking Water Protected Areas (DWPA's)* Available: Groundwater Drinking Water Protected Areas (DWPA's) - Datasets - Open Data NI

National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
		Mid & East Antrim Borough Council: ▪ Dungonnel (Neagh Bann RBD) ▪ Killylane ▪ Dungonnel (North Eastern RBD) ▪ Dorisland ▪ Altnahinch Of the twelve GDWPAs, the following are located within each council area: Antrim & Newtownabbey Borough Council: ▪ Hills Island Magee ▪ Coleraine Kilrea ▪ Ballymena ▪ Cookstown ▪ Antrim ▪ Belfast Mid Ards & North Down Borough Council: ▪ Belfast Mid ▪ Belfast East ▪ Ards Peninsula ▪ Downpatrick Belfast City Council: ▪ Antrim ▪ Belfast Hills Island Magee ▪ Belfast Mid ▪ Belfast East ▪ Ards Peninsula ▪ Downpatrick Lisburn & Castlereagh City Council: ▪ Antrim

National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
		▪ Belfast Hills Island Magee ▪ Belfast Mid ▪ Belfast East ▪ Belfast West ▪ Ards Peninsula ▪ Downpatrick <u>Mid & East Antrim Borough Council:</u> ▪ Coleraine Kilrea ▪ Ballymena ▪ Antrim ▪ Ballycastle Armoy ▪ Glenariff ▪ Belfast Hills Island Magee

Explanatory Text and anticipated future trends:

The European Water Framework Directive was transposed to national legislation through the Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017. The Water (Amendment) (Northern Ireland) (EU Exit) Regulations 2019 ensures that the Water Framework Directive (WFD) (as transposed) and the various supporting pieces of water legislation remain implemented in Northern Ireland as National legislation.

Drinking Water Protected Areas as defined by the Water Framework Directive were identified as part of the 2nd Cycle in 2016. The protected areas were created from the 2016 updated 450 river water bodies with input and agreement from Northern Ireland Water. This layer forms part of the designated protected areas as defined under the WFD legislation.[129]

Rivers, lakes and reservoirs in Northern Ireland are used to abstract around 99.95% of our public drinking water supply, with the remaining 0.05% abstracted from groundwater.

Groundwater provides a 6% of drinking water in Northern Ireland. This is significantly lower than in England and Wales but reflects the more favourable conditions for the development of surface water resources in Northern Ireland.[130] The public water supplier (Northern Ireland Water) has in recent years moved away from groundwater abstractions and there is now only one small public water supply on Rathlin Island (population 80) which

[129] OpenDataNI (2022) *Surface Drinking Water Protected Areas.* Available: Surface Drinking Water Protected Areas - data.gov.uk

[130] UK Groundwater Forum. Available: FAQs - Is the water in my tap groundwater? (groundwateruk.org)

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	abstracts from a groundwater source. However, the volume of groundwater abstracted for private water supplies has been growing over the last few years[131]. **Without a coordinated approach to development and infrastructure there is increased potential for pollution to occur in areas where there is a risk of contamination of drinking water resulting**. The location of Drinking Water Protected Areas within the ETP region are shown In **Appendix D**.		

C.9 Resources and Waste

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
Landfill Sites	In the UK, landfill tax is one of the key drivers to divert waste from landfill to ensure that the 2020 target of no more than 10.161 million tonnes of biodegradable municipal waste (BMW) to landfill and the 2035 target of no more than 10% of municipal waste to landfill[132]. UK BMW sent to landfill has fallen from approximately 6.7 million tonnes in 2021 to around 6.3 million tonnes in 2022 (20% of the baseline 1995 value).[133]. Northern Ireland has already met its landfill diversion target to reduce the tonnage of biodegradable municipal waste to landfill to no	The total amount of municipal waste arising from the ETP area during Apr-Jun 2021 was 133,229 Tonnes.[136]	The total amount of municipal waste arising from each of the council areas and the percentage of household waste landfilled during Apr-Jun 2023 is as follows:[136] Antrim & Newtownabbey Borough Council: ▪ 28,685 Tonnes ▪ 20.3% Ards & North Down Borough Council: ▪ 22,832 Tonnes ▪ 35.7% Belfast City Council: ▪ 41,741 Tonnes ▪ 26.5% Lisburn & Castlereagh City Council: ▪ 21,063 Tonnes

[131] Department of Agriculture, Environment and Rural affairs (2013) State of the Environment. Available: https://www.daera-ni.gov.uk

[132] Defra (2020) *Waste Management Plan for England.* Available: https://consult.defra.gov.uk/waste-and-recycling/waste-management-plan-for-england/supporting_documents/Waste%20Management%20Plan%20for%20England.pdf

[133] Defra (2022) *UK Statistics on Waste*. Available: UK statistics on waste - GOV.UK

[136] DAERA (2022) *Northern Ireland local authority collected municipal waste management statistics April to June 2022 quarterly report. Available*: Northern Ireland local authority collected municipal waste management statistics April to June 2022 quarterly report | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	greater than 35% of the 1995 baseline by 2020 (429,000 tonnes). Statistics indicate that Northern Ireland has met this target year on year since 2012[134]. There are approximately 33 authorised landfill sites in Northern Ireland, as of 2019[135].		▪ 34.7% Mid & East Antrim Borough Council: ▪ 20,623 Tonnes ▪ 33.8%
	Explanatory Text and anticipated future trends: Waste generation, treatment and disposal places significant pressure on the environment, the severity of which very much depends on the volume of waste produced, its composition, how it is regulated and finally managed and disposed. Waste can affect the environment through its visual impact or by emissions to the air, groundwater and surface water as well as the contamination of land. Historically, we have relied heavily on landfilling as a means of managing our waste in Northern Ireland, which can lead to the generation of potentially polluting substances. Leachate is produced when water filters downward through a landfill, picking up dissolved materials from the decomposing wastes. Methane and carbon dioxide, both major greenhouse gases, are formed as a result of the decomposition of biodegradable wastes. The amount of BMW sent to landfill in the UK has fallen in recent years and it is expected that the country will meet targets for the reduction of waste by 2020. It is unlikely that providing new development in the ETP Region will greatly influence the proportion of waste sent to landfill. This will more likely be influenced by the decisions of residents in the plan area (for example by recycling and composting) as well decisions made by the local authorities.		
Waste Facilities	In 2013/14 there were 97 Household Recycling Centres (HRCs) located in Northern Ireland, with an average catchment radius of 4.1 miles and approximately 7,414 households per site. Northern Ireland's councils collected 234,309 tonnes of waste during January to March 2024. 45.8% of waste collected by councils was sent for	There were approximately 63 active authorised waste sites within County Antrim and County Down as of February 2021, which although do not entirely represent the ETP area are the two most relevant counties.[138]	The amount of waste from households sent for preparing for reuse, dry recycling and composting and the rate during Apr-Jun 23 is as follows:[139] Antrim & Newtownabbey Borough Council: ▪ 19,265 Tonnes ▪ 67.2%

[134] DAERA (2019) *Waste Management Plan for Northern Ireland.* Available: Waste management plan for England (daera-ni.gov.uk)
[135] OpenDataNI (2019) *NIEA – Authorised landfill sites.* Available: Portal | NIEA – Authorised landfill sites (opendatani.gov.uk)
[138] Open Data NI (2021) *Authorised waste sites information.* Available: Portal | Authorised waste sites information (opendatani.gov.uk)
[139] DAERA (2023) *Northern Ireland Local Authority Collected Municipal Waste Management Statistics April to June 2023.* Available: Northern Ireland local authority collected municipal waste management statistics April to June 2023 quarterly report | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	recycling. The landfill rate for waste collected by councils was 19.0 % in January to March 2024.[137]		Ards & North Down Borough Council: ▪ 13,466 Tonnes ▪ 59.0% Belfast City Council: ▪ 16,152 Tonnes ▪ 38.7% Lisburn & Castlereagh City Council: ▪ 11,590 Tonnes ▪ 55.0% Mid & East Antrim Borough Council: ▪ 11,208 Tonnes ▪ 58.6%
	Explanatory Text and anticipated future trends: The provision of waste facilities in the ETP Region is outside of the scope of the Transport Plan.		
Energy / Fuel Use	Electricity generation fell in 2023 following lower UK demand, as demand from Europe saw the UK return to being a net importer of electricity. Electricity generation fell 9.9% lower than in 2022. Renewable generation narrowly reached record high levels in 2023 similar to 2022, rising 0.3%, due to high output from wind and solar generators. This was driven by substantial increases in wind and solar generation capacity which offset slightly less favourable weather	Detailed at Council Area Level.	The number of installations of renewable energy within each council is as follows as of the end of 2023[142]: Antrim & Newtownabbey Borough Council: ▪ 2,235 Ards & North Down Borough Council: ▪ 2,760 Belfast City Council:

[137] DAERA (2024) *Northern Ireland Local Authority Collected Municipal Waste Management Statistics.* Available: NI LAC Municipal Waste Management Statistics JM2024 (daera-ni.gov.uk)

[142] DESZ (2024) *Regional Renewable Statistics.* Available: Regional Renewable Statistics - GOV.UK

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	conditions in 2023. Bioenergy was the only renewable technology where generation decreased, as outages continued at key bioenergy sites. Fossil fuel generation decreased by a fifth in 2023 to 107.3Twh. Gas remained the largest single fuel and, coal generation continued to fall down to a record low. The share of generation coming from low carbon sources rose to a record 60.3% in 2023. This came as the share of generation from renewable sources (46.4%) exceeded the share from fossil fuels (36.7%) for the third time in four years[140]. For the 12 month period July 2023 to June 2024, 45.8% of total metered electricity consumption in Northern Ireland was generated from renewable sources. This represents an increase of 0.3% on the previous 12 month period (July 2022 to June 2023). In terms of the volume of electricity consumption between July 2023 and June 2024, some 7,244 Gigawatt hours (GWh) of total electricity was consumed in Northern Ireland. Over the same period, some 3,319 GWh was generated from renewable sources located in Northern Ireland. Of all renewable electricity generated within Northern Ireland over the 12 month period July 2023 to June 2024, 82.3% was generated from		▪ 2,224 Lisburn & Castlereagh City Council: ▪ 2,469 Mid & East Antrim Borough Council: ▪ 2,581 These types of installations include Onshore and Offshore wind, Hydro, Anaerobic Digestion, Photovoltaics, Wave/Tidal, Sewage Gas, Landfill Gas, Municipal Solid Waste, Animal Biomass, Plant Biomass and Cofiring.

[140] Gov.uk (2024) *DUKES 2024 Chapter 5.* Available: DUKES 2024 Chapter 5 (publishing.service.gov.uk)

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	wind. This compares to 83.2% for the previous 12 month period (July 2022 to June 2023)[141].		
	Explanatory Text and anticipated future trends: Electricity supply is driven by demand, as it is generated or imported as needed. In recent years, demand for electricity has decreased as energy efficiency measures have improved and increased in number. The total electricity demand comprises energy industry use, losses in transmission or distribution and final consumption by end users[143]. The main driver for the decrease shift in generation of coal and gas was an increase in the carbon price floor in April 2015, from £9 per tonne of CO2 to £18 per tonne of CO2. Since coal generation produces more than double the amount of carbon dioxide per GWh of electricity supplied than gas, this made generation from coal more expensive than gas. Trends in fuel used broadly mirror those in electricity generation, with decreases in the amount of fossil fuel and nuclear fuel use, a small drop in bioenergy and increases in assumed fuel used by wind and solar generators. Gas continues to dominate the UK generation mix, with 17.7 Mtoe used in 2023, while coal use decreased to 0.9 Mtoe, the lowest value on the published data series. The delivery of new development and infrastructure **may provide opportunities for the incorporation of new renewable schemes where this is deemed appropriate. If development is not provided in a strategic manner it is less likely that these types of opportunities will be achieved.**		
Aggregates / Construction Materials	Construction output is forecast to fall by 2.1% in 2024, falls in private housing new build and repair, maintenance and improvement (rm&i). The CPA forecasts that construction output will rise by 2.0% in 2025 in line with falling interest rates and a general economic recovery, which, in turn, could ease challenges in the housing and rm&i sectors. Recent disruptions in the Red Sea, however, have been identified as a key risk to the forecasts, potentially leading to supply issues such as delays and accelerating cost inflation.	Reported at National level only.	Reported at National level only.

[141] Department for the Economy (2024) *Electricity Consumption and Renewable Generation Statistics.* Available: Electricity Consumption and Renewable Generation Statistics | Department for the Economy (economy-ni.gov.uk)

[143] DBEIS (2020) *DUKES 2020 Chapter 5: Electricity*. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904805/DUKES_2020_Chapter_5.pdf

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	In the UK, seasonally adjusted sales of sand and gravel have consistently remained below levels typically seen before the recession of 2008 to 2009. . After recovering from the Covid-19 pandemic, from 2022 the general trend has been of a decline. In contrast, after the 2008 to 2009 recession, seasonally adjusted sales of ready-mixed concrete had been recovering steadily since quarter-2 2012, until the recent drop due to the Covid-19 pandemic. Since 2021 there has been a general declining trend. Concrete block deliveries and bricks also declined during the recession of 2008 to 2009. The general trend has been one of growth from 2013 to 2020, interrupted only by the Covid-19 pandemic., but have been declining since 2022[144]. In Quarter 4 of 2024 the total volume of construction output increased by 0.5%, increased by 12.3% over the year and increased by 5.5% on a rolling four quarters basis in Northern Ireland. Construction output reached a 15 year high following three consecutive quarters of growth[145].		
	Explanatory Text and anticipated future trends: Aggregates are the most commonly used minerals in the UK and are essential to a modern economy. They provide the critical raw material for built development and other construction, manufacturing and the maintenance of infrastructure, through their use as concrete, mortar, finishes, roadstone, constructional fill and railway ballast.		

[144] Gov.UK (2024) *Construction Building Materials.* Available: Construction building materials: commentary, February 2024 - GOV.UK (www.gov.uk)

[145] NISRA (2024) *Construction Output Statistics.* Available: Construction output statistics | Northern Ireland Statistics and Research Agency

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	There are three sources of supply of aggregates – primary, secondary and recycled. The majority of aggregate demand is met from primary sources. This involves extracting material directly from the ground and dredging from the sea floor. There are significant geographical imbalances in the occurrence of suitable natural aggregate resources and the areas where they are most needed. Although the demand for construction materials is expected to fall in 2020 due to the impact of Covid-19, the long-term trend is an expected increase at a national level..		
Sector Waste Statistics	In 2023/24, 50.5% of waste collected by the Northern Ireland local authorities was recycled, increasing 0.9% higher than the recycling rate recorded in 2022/23. Waste sent to landfill decreased to 18.4% in the same year, down from 22.4% in 2022/23. The total amount of waste collected was 1,000,681 tonnes during 2023/24, 0.08% higher than that collected in 2022/23[146].	Detailed at Council Area Level.	As of 2023/24, the following council areas had the following local authority collected municipal waste percentages sent for preparing for reuse, dry recycling and composting[147]: ▪ Antrim & Newtownabbey Borough Council – 62.2% ▪ Ards & North Down Borough Council – 55.4% ▪ Belfast City Council – 38.8% ▪ Lisburn & Castlereagh City Council – 51.3% ▪ Mid & East Antrim Borough Council – 49.1%
	Explanatory Text and anticipated future trends: The household waste recycling rate in Northern Ireland was 51.1 per cent in 2023/24, continuing to meet the Northern Ireland Waste Management Strategy target to recycle 50 per cent of household waste by 2020. This target was first met in 2018/19. The 2023/24 figure is similar to the previous years rate.[148] The recycling rate for all waste collected, both household and non household waste, was 50.5 per cent in 2023/24[148]. The Waste Management Plan for Northern Ireland aims to bring current waste management policies under the umbrella of one national plan. The waste management policies in Northern Ireland which taken together deliver the objectives of the revised Waste Framework Directive (2008/98): to		

[146] NISRA (2023) *Northern Ireland Local Authority Collected Municipal Waste Management Statistics Annual Report 2023/24*. Available: Northern Ireland Local Authority Collected Municipal Waste Management Statistics - Annual Report 2023/24

[147] DAERA (2024) *Northern Ireland local authority collected municipal waste management statistics 2022/23 annual report.* Available: Northern Ireland local authority collected municipal waste management statistics 2023/24 annual report | Department of Agriculture, Environment and Rural Affairs

[148] NISRA (2024) *Northern Ireland Local Authority Collected Municipal Waste Management Statistics Annual Report 2023/24*. Available: Northern Ireland Local Authority Collected Municipal Waste Management Statistics - Annual Report 2023/24

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of waste and by reducing overall impacts of resource use and improving the efficiency of such use.[149]		

[149] DAERA (2019) *Waste Management Plan for Northern Ireland:* Available: Waste management plan for England (daera-ni.gov.uk)

C.10 Communities – Population, Employment and Viability

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
Population and Locations of Major Settlements	The UK population at mid-year 2023 was estimated to be 68.3 million, an increase of roughly 1% since mid-2022[150]. The population grew faster in England and in Wales (both 1.0%) than in Scotland (0.8%) or Northern Ireland (0.5%). Northern Ireland, as the 2021 census, had a population of approximately 1.903 million, with 43.7% of people being aged between 0-34, 39.1% between 35-64 and 17.2% aged over 65[151]. Based on 2021 projections, by 2050, it's expected that the population of Northern Ireland will increase to 2.005million, an increase of 2%. The number of those aged 0-34 is expected to be 0.741 million whilst the number of those aged over 65 is expected to be 0.508 million[152].	As of mid-2022, the ETP region had a population estimated at 947,491[154]. Major settlements within the ETP region include, and are not limited to the following, with populations as reported in the 2021 census:[155] ▪ City ▫ Belfast – 384,704 ▪ Large Town ▫ Newtownabbey – 67,599 ▫ Bangor – 64,596 ▫ Lisburn – 51,477 ▫ Ballymena – 31,205 ▫ Carrickfergus – 28,141 ▫ Newtownards – 29,677 ▫ Antrim – 25,606 ▫ Larne – 18,853	The 2021 census population data identified the following local authority statistics[156]: Antrim & Newtownabbey Borough Council: ▪ 145,700 people, an increase of 5% from the 2011 census ▪ Approximately 64% are of working age (15-64) Ards & North Down Borough Council: ▪ 163,700 people, an increase of 4% from the 2011 census ▪ Approximately 61% are of working age (15-64) Belfast City Council: ▪ 345,400 people, an increase of 3% from the 2011 census ▪ Approximately 67% are of working age (15-64) Lisburn & Castlereagh City Council:

[150] Office for National Statistics (2023) *Population estimates for UK: Mid-2023.* Available: Population estimates for the UK, England, Wales, Scotland and Northern Ireland - Office for National Statistics (ons.gov.uk)

[151] NISRA (2022) *Census 2021 population and household estimates for Northern Ireland.* Available: census-2021-population-and-household-estimates-for-northern-ireland-tables-24-may-2022.xlsx (live.com)

[152] Office for National Statistics (2021) *Principal projection – Northern Ireland population in age groups.* Available: Principal projection - Northern Ireland population in age groups - Office for National Statistics (ons.gov.uk)

[154] NISRA (2024) *All areas – Population Totals.* Available: 2023 Mid-Year Population Estimates for Northern Ireland and Estimates of the Population Aged 85 and Over for Northern Ireland, 2023 (and 2001 to 2022 revised) | Northern Ireland Statistics and Research Agency

[155] City Population (2021) *United Kingdom: Major Cities in Northern Ireland.* Available: United Kingdom: Major Cities in Northern Ireland - Population Statistics, Maps, Charts, Weather and Web Information

[156] NISRA (2022) *Census 2021 infographics.* Available: Census 2021 infographics | Northern Ireland Statistics and Research Agency (nisra.gov.uk)

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	The number of households in Northern Ireland is projected to increase from 768,900 in 2021 to 813,789 by 2041 based on 2016 projections[153](5.5%). Growth in the household population age is greatest in persons aged 75 years or over, with growth approximately 43% from 2021-2041 from 2016 projections. The number of people aged 75 or over living on their own is projected to increase by 34% between 2021 and 2041 as stated by the 2016 projections.		▪ 149,100 people, an increase of 11% from the 2011 census ▪ Approximately 63% are of working age (15-64) <u>Mid & East Antrim Borough Council:</u> ▪ 139,000 people, an increase of 3% from the 2011 census ▪ Approximately 63% are of working age (15-64)

Explanatory Text and anticipated future trends:

Latest NISRA figures for household projections in Northern Ireland show an indication of the future number of households in Northern Ireland and its local government districts[157]. These are used for planning in areas such as waste collection and community care. Over the period 2016-2041, there is a projected increase of 88,700 households, equivalent to 3,500 households per annum over the 25 year projection period. The main drivers for this growth in households are the population in Northern Ireland continuing to age and the tendency for the older population to live in either one or two adult households without children, which are projected to increase by 18.6% and 27.0%respectively. By 2041, these two household types are projected to account for three fifths (60.3%) of all households.

From the population projections for 2022-2030 the annual population growth is falling gradually from 0.4% in 2022 to 0.3% by 2030. From 2022 onwards, the number of children is projected to fall, which is set to continue into the late 2030s. Population growth for those aged 65 and over is set to be at its peak at 2.7% between mid-2028 and mid-2029. From 2028 onwards, those aged 65 and over are projected to exceed the projected number of children. The working age population is set to decline at a moderate rate.[158]

Northern Ireland is expected to see a falling population growth in the coming years, with **the proportion of residents of an older age increasing. Development across the plan area needs to be particular considerate of this group in relation to the design of development and neighbourhoods as well as the accessibility of services and facilities. There will be a need to promote development which ensures the issue of isolation does not become more prevalent given the expected increase in the proportion of single person households among older people. Without a strategic approach to development it is less likely that these challenges will be comprehensively met.**

[153] NISRA (2018) *Northern Ireland Household Projections:* Available: HHP16_NI.XLS (live.com)

[157] ONS – Household projections for England: 2018-based. Available: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/householdprojectionsforengland/2018based#household-type-projections

[158] Office for National Statistics (2020) *Household Projections for England.* Available: Household projections for England - Office for National Statistics

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
Working Age Population	As of mid-2022 estimates, the proportion of UK residents of working age (15-64) was 64.0%, 49.3% of which were males and 50.7% of which were females[159]. In Northern Ireland, a similar percentage of residents were of working age as in the UK (approximately 63.3%) at the same time of reporting. The breakdown between males (approximately 49.4%) and females (approximately 50.6%) in Northern Irelands working population is also similar[160].	Detailed at Council Area Level	Of the council areas, Belfast had the highest proportion of working age (67%) of the 2021 census.
	Explanatory Text and anticipated future trends: See above relating to population change.		
Unemployment	Of the economically active population, approximately 4.4% were unemployed in the UK between December 2024 and February of 2025. During the same period the percentage of economically active people in Northern Ireland that were unemployed was 1.5%[161].The unemployment rate as of 2023 in Northern Ireland was 2.2%. The Northern	Reported at Council Area Level.	The following statistics are for Employment Rate (16-64) in 2023[163]: Antrim & Newtownabbey Borough Council: ▪ 78.5% Ards & North Down Borough Council: ▪ 75.5% Belfast City Council: ▪ 67.9%

[159] Office for National Statistics (2024) *Estimates of the population for the UK, England, Wales, Scotland, and Northern Ireland.* Available: Estimates of the population for the UK, England, Wales, Scotland, and Northern Ireland - Office for National Statistics

[160] Office for National Statistics (2024) *Estimates of the population for the UK, England, Wales, Scotland, and Northern Ireland.* Available: Estimates of the population for the UK, England, Wales, Scotland, and Northern Ireland - Office for National Statistics

[161] NOMIS (2025) *Labour Market Profile.* Available: Labour Market Profile - Nomis - Official Census and Labour Market Statistics (nomisweb.co.uk)

[163] NISRA (2024*) Labour Force Survey Annual Tables 2023.* Available: Labour Force Survey Annual Tables 2023 | Northern Ireland Statistics and Research Agency

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	Ireland employment rate (16-64) in 2023 was 73.6%[162].		Lisburn & Castlereagh City Council: ▪ 77.8% Mid & East Antrim Borough Council: ▪ 79.5%
	Explanatory Text and anticipated future trends: Data from the ONS Labour Force Survey shows the employment rate has been decreasing since the start of the coronavirus pandemic, while the unemployment rate and the level of redundancies have been increasing in recent periods. Total hours worked, while still low, show signs of recovering and there are fewer people temporarily away from work[164]. In October to December 2023, the estimated number of job vacancies in the UK fell by 49,000 on the quarter to 934,000. Vacancies fell on the quarter for the 18th consecutive period, the longest consecutive run of quarterly falls ever recorded but still above pre-coronavirus (COVID-19) pandemic levels.[165] Without the strategic approach to development in the ETP Region t**he required development and infrastructure is less likely to be provided to encourage investment in areas where highest numbers of residents can benefit from new employment opportunities**.		
Economic Activity Rates	From Dec 2024 to Feb 2025, 72.5% of the population were economically active in Northern Ireland. 71.3% of the economically active were in employment. From Jan 2024 to December 2024 of the 24.6% of the economically inactive population in Northern Ireland, 25.8% were students, 36.7% were long-term sick and 17.4% were looking after family/home[166] . In 2023 the economic activity rate was 57.9% in Northern Ireland.[167]	Reported at Council Area level.	In 2023, Antrim and Newtownabbey had the highest economically active rate of 16 and overs (64.4%) of the relevant local authority areas. This figure was considerably higher than Ards and North Down and Belfast City Council Areas (54.2% and 56.3% respectively). Whilst Lisburn and Castlereagh and Mid and East Antrim Council Areas had economic activity rates of 63.1% and 63.5% respectively.[168]

[162] NISRA (2024) *Labour Force Survey Annual Summary Report 2023.* Available: Labour Force Survey Annual Summary Report 2023

[164] ONS – Labour market overview, UK: October 2020. Available: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/uklabourmarket/october2020

[165] ONS (2024) *Labour market overview, UK: January 2024*. Available: Labour market overview, UK - Office for National Statistics (ons.gov.uk)

[166] NOMIS (2025) *Labour Market Profile.* Available: Labour Market Profile - Nomis - Official Census and Labour Market Statistics (nomisweb.co.uk)

[167] NISRA (2024*) Labour Force Survey Annual Tables 2023.* Available: Labour Force Survey Annual Tables 2023 | Northern Ireland Statistics and Research Agency

[168] NISRA (2024*) Labour Force Survey Annual Tables 2023.* Available: Labour Force Survey Annual Tables 2023 | Northern Ireland Statistics and Research Agency

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	Explanatory Text and anticipated future trends: The councils within the ETP Region have demonstrated varied levels of economic activity, with two of which having higher economic activity rates than Northern Ireland as a whole. In Northern Ireland, those who were reported to be economically inactive was predominately made of long-term sick, closely followed by students. Development in the region should **aim to build on the rates of economic activity among the local population as well the relatively high proportion of students which indicates high educational attainment. Without a strategic approach to development and infrastructure in the ETP Region, it may prove more difficult to encourage further economic investment and to build on level of economic activity presently demonstrated in the region**.		
Deprivation	The Northern Ireland Multiple Deprivation Measures (NIMDM) 2017 provide information for seven distinct types of deprivation, along with an overall multiple deprivation measure (MDM). With deprivation dispersed across Northern Ireland, overall, 90% of the local authority districts contain at least one of the top 100 most deprived Super Output Areas (SOA). Belfast, Derry City and Strabane, Newry, Mourne and Down are the local authorities with the highest proportions of neighbourhoods among the most deprived in Northern Ireland as identified by the MDM[169].	Reported at Council Area level.	In terms of MDM, Belfast contains the highest number of SOAs within the top 100 most deprived of all local authorities with 50. Lisburn & Castlereagh has none, and the remaining council areas have between 1 and 3. As of 2017, the council areas consist of the following percentage of the 100 most deprived SOAs, in the domains detailed: Antrim & Newtownabbey Borough Council: ▪ 0% - Income Deprivation ▪ 3% Employment Deprivation Ards & North Down Borough Council: ▪ 5% Income Deprivation ▪ 1% Employment Deprivation Belfast City Council: ▪ 12% Income Deprivation ▪ 29% Employment Deprivation Lisburn & Castlereagh City Council: ▪ 1% Income Deprivation

[169] NISRA (2017) *Northern Ireland Multiple Deprivation Measures.* Available: NIMDM17- Results | Northern Ireland Statistics and Research Agency

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
			▪ 0% Employment Deprivation Mid & East Antrim Borough Council: ▪ 6% Income Deprivation ▪ 0% Employment Deprivation
	The Multiple Deprivation Measures [170] provide a set of relative measures of deprivation for small geographical areas (Super Output Areas) across Northern Ireland, based on seven different domains of deprivation: ▪ Income Deprivation ▪ Employment Deprivation ▪ Education, Skills and Training Deprivation ▪ Health Deprivation and Disability ▪ Crime & Disorder ▪ Barriers to Services ▪ Living Environment Deprivation Each of these domains is based on a basket of indicators. As far as is possible, each indicator is based on data from the most recent time point available. There are varying levels of deprivation across the ETP area but it does **contain pockets of deprivation. Without the strategic approach to development in the plan area, opportunities to deliver development and infrastructure which can improve access to employment and the income of local people are less likely to be achieved**.		
Gross Value Added	NI GVA per head in 2022 increased by 7.7% in current basic prices (to £26,119) between 2021 and 2022, meanwhile the UK increased by 8.8%. Between 2020 and 2021, NI experienced the 3rd smallest growth of all the UK's 12 ITL 1 regions[171].	Reported at Council Area level.	The Regional GVA for all industries in current prices in 2023 [172]: Antrim & Newtownabbey Borough Council: ▪ £4,249 million

[170] NISRA (2017) *Northern Ireland Multiple Deprivation Measures.* Available: NIMDM17- Results | Northern Ireland Statistics and Research Agency
[171] NISRA (2024) Gross Value Added and Grodd Domestic Product,. Available: Gross Value Added and Gross Domestic Product | Northern Ireland Statistics and Research Agency (nisra.gov.uk)
[172] ONS (2025) *Regional gross value added (balanced) by industry: local authorities by ITL 1 region.* Available: Regional gross value added (balanced) by industry: local authorities by ITL1 region - Office for National Statistics (ons.gov.uk)

National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
The Nominal Gross Value Added (GVA) per filled job (£) for the United Kingdom (including the off-shore contribution to GVA that cannot be assigned to any region) between 2016 and 2018 was reported as follows: ▪ 2016 - £53,788 ▪ 2017 - £55,347 ▪ 2018 - £56,387		Ards & North Down Borough Council: ▪ £2,639 million Belfast City Council: ▪ £18,458 million Lisburn & Castlereagh City Council: ▪ £4,294 million Mid & East Antrim Borough Council: ▪ £3,152 million

Explanatory Text and anticipated future trends:

GVA is a measure of the increase in the value of the economy due to the production of goods and services. The measure can be a useful way of comparing regions of different size, however, comparisons can be affected by commuting flows into or out of the region.

Of the local authority areas in the ETP Region, Belfast reported the highest Nominal GVA per for all industries. **Development and infrastructure should be planned so that increases in value of the economy can be of benefit to all. Without a strategic approach to development and infrastructure to support future economic growth it is likely that some opportunities to secure this aim may not be realised**.

C.11 Communities – Supporting Infrastructure

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
Location of Strategic Rail Links	The railway network in Great Britain comprises 2,578 stations, set across 15,846km of tracks of which 38.0% is electrified. Train usage was reported to have increased by 39.9% in 2023 compared to the previous year. Complaints with the passenger rail service were up 22.7% from 2021/22. Passenger journeys went up 39.9% from 2021/22[173]. The strategic rail network in Northern Ireland is concentrated in the east of the country around Belfast and the surrounding cities of Lisburn, Antrim, Bangor and Carrickfergus. The network extends to the north and north west, with Londonderry being the most westerly point. The central and south west regions are poorly served by rail. (GIS mapping)	The ETP region intersects the majority of Northern Irelands railway networks. Of the 10 lines, it provides access to 8 of them. (GIS mapping)[174].	Of the 10 railway lines located in the ETP region, the following council areas intersect with the following lines (GIS mapping)[175]: Antrim & Newtownabbey Borough Council: ▪ Knockmore Junction to Antrim ▪ Bleach Green Junction to Coleraine ▪ York Road to Larne Harbour Ards & North Down Borough Council:0 ▪ Dundalk to Bangor Belfast City Council: ▪ Dundalk to Bangor ▪ Central Junction to Great Victoria Street ▪ City Junction to Westlink Junction ▪ York Road to Larne Harbour • Belfast Central to York Road Lisburn & Castlereagh City Council: ▪ Dundalk to Bangor ▪ Knockmore Junction to Antrim ▪ Knockmore Junction to Lisburn Mid & East Antrim Borough Council: ▪ Bleach Green Junction to Coleraine

[173] DfT (2024) *Rail Factsheet: 2023.* Available: Rail factsheet: 2023 - GOV.UK
[174] OpenDataNI (2023) *Northern Ireland Railways*. Available: Northern Ireland Railways NIR Railway Network - data.gov.uk
[175] OpenDataNI (2023) *Northern Ireland Railways*. Available: Northern Ireland Railways NIR Railway Network - data.gov.uk

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
			▪ York Road to Larne Harbour
	Explanatory Text and anticipated future trends: The use of public transport via rail in Great Britain has increased in recent years while reliance on bus services has decreased. This method of transport offers a more limited contribution to climate change compared to private car use and in 2022/23 emissions per passenger were reported to have increased by 10.3% compared to the previous reporting year.[176] Since March 2020, public transport has been heavily impacted by the COVID-19 pandemic. At the lowest point in April and May 2020, passenger rail journeys were 96% less than an equivalent day in the previous year. In the next three years, rail continued to be impacted by the COVID-19 pandemic, with at one point in January 2021, passenger rail journeys were 12% of an equivalent day prior to the pandemic. Since then, passenger rail journeys generally began to steadily increase again and at its peak in February 2023, passenger rail journeys were 94% of an equivalent day in pre-COVID[177]. The provision of development and infrastructure in the plan area **provides an opportunity to strengthen the rail offer in the region and its viability, while encouraging use by residents. Providing development and infrastructure without a taking strategic approach is less likely to achieve these aims considering the need to ensure a highly connected railway system for it to be successful.**		
Location of Regional Strategic Transport Network (RSTN)	The RSTN incorporates 5% of the road network, carrying around 37% of total vehicle travel and all of the railway system. The road element comprises 5 key transport corridors, 4 link corridors, the Belfast Metropolitan Transport Corridors and the remainder of the trunk road network[178]. The motorway network in Northern Ireland is focused around Belfast in the east, with two links extending north west and south west. These terminate in Randalstown and Dungannon respectively. The remaining regions are well connected by the A road network, which services towns and the majority of larger villages. (GIS mapping)	The following key transport corridors are part of the RSTN and intersect the ETP area ▪ Eastern Seaboard Corridor ▪ North Western Corridor ▪ Northern Corridor ▪ South Western Corridor	Reported at National and Regional Level.
	Explanatory Text and anticipated future trends:		

[176] DfT (2024) *Rail Factsheet: 2023.* Available: Rail factsheet: 2023 - GOV.UK

[177] DfT (2024) *Rail Factsheet: 2023.* Available: Rail factsheet: 2023 - GOV.UK

[178] DfI (2025) *Regional Strategic Transport Network*. Available: Regional Strategic Transport Network | Department for Infrastructure (infrastructure-ni.gov.uk)

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	The Regional Strategic Transport Network Transport Plan 2015 has been prepared by the former Department for Regional Development, now the Department for Infrastructure. The Regional Strategic Transport Plan presents a range of multi-modal transport initiatives to manage, maintain and develop Northern Ireland's Strategic Transport Network. The implementation of the road improvement initiatives will depend on the availability of finance, completion of relevant statutory procedures and economic appraisals.[179] The provision of development and infrastructure in the plan area **provides an opportunity to not only to strengthen the RSTN in the plan area to help limit congestion and support economic growth, but also to support the viability of public transport networks support. Providing development and infrastructure without a taking strategic approach is less likely to achieve these aims considering the need to ensure a highly connected RSTN and public transport network for it to be successful.**		
Location of Airports	There are 48 reporting airports across the UK. The UK currently has the biggest international aviation network in Europe and is the third largest in the world. The UK has direct connections to over 370 destination and more than 100 countries[180] as of 2018. There are 3 airports in Northern Ireland: ▪ Belfast International Airport ▪ George Best Belfast City Airport ▪ City of Derry Airport	Within the ETP region are two airports which are airline destinations: Belfast International Airport - Northern Ireland's Principal Airport and the second largest gateway on the Island of Ireland[181]. In 2023 it at 5,568 passengers which was 2.1% of passengers at all airports in the UK[182] George Best Belfast City Airport – has flights to a range of domestic and European destinations[183]. In 2023 it had 2,064 passengers which was 0.8% of passengers at all airports in the UK[184]	Reported at National and Regional Level.
	Explanatory Text and anticipated future trends:		

[179] DfI (2025) *Regional Strategic Transport Network*. Available: Regional Strategic Transport Network | Department for Infrastructure (infrastructure-ni.gov.uk)

[180] HM Government (2018) *Aviation 2050: The Future of UK Aviation*. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/769695/aviation-2050-web.pdf

[181] Belfast International Airport (2025) *Belfast International Airport Information.* Available: Airport Info | Belfast International Airport (belfastairport.com)

[182] Civil Aviation Authority (2024) *Size of Reporting Airports October 2022 – September 2023*. Available: Table_01_Size_of_UK_Airports_PDF.rdl (caa.co.uk)

[183] Belfast City Airport (2025) *About Us*. Available: George Best Belfast City Airport : About Belfast City Airport | UK & Ireland's Most Convenient Airport

[184] Civil Aviation Authority (2024) *Size of Reporting Airports October 2022 – September 2023*. Available: Table_01_Size_of_UK_Airports_PDF.rdl (caa.co.uk)

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	The aviation industry plays an important role in the UK economy contributing at least £22 billion, along with over 230,000 jobs. Growth in this sector has been reflected by year on year increases in UK passenger numbers for the seven consecutive years up to 2018[185]. At Belfast International airport the amount of passengers as a percentage of at all airports has increased from 4,158 in 2022 to 5,255 in 2023 and at Belfast City Airport it at has increased from 1,266 to 1,984[186]. The provision of development in the plan area **provides an opportunity to build on the importance of the economic role of the airports for the region. Providing development without a taking strategic approach may mean that opportunities to support the long term and sustainable growth of industry supported by the airport are less likely to realised.**		
Digital Connectivity	In the UK more properties can now access superfast and ultrafast broadband (as defined as download speeds of 30Mbit/s and above), with 71% of broadband connections provided using fibre technologies by the end of 2023. 88% of UK home broadband lines with delivered superfast connections and ultrafast (speeds of 300 Mbit/s or higher) made up 10% of the total as people continued to upgrade from standard broadband services.[187]. In respect to the rest of the UK, Northern Ireland continues to have the highest proportion of internet non-users; standing at 14.2%. However, not all areas in Northern Ireland are experiencing the digital divide in the same way.[188] In 2023 nearly three quarters of a million Northern Ireland homes have access to full-fibre	Generally a relationship between population density and broadband speed can be found, with lower speeds found with those Council areas with a sparser population[190].	The internet speed within the relevant council areas are as follows[191]: Antrim & Newtownabbey Borough Council: ▪ Superfast Broadband coverage (>=30Mbps) – 93.1% ▪ Broadband coverage <2 Mbps – 3.2% Ards & North Down Borough Council: ▪ Superfast Broadband coverage (>=30Mbps) – 95.3% ▪ Broadband coverage <2 Mbps – 1.1% Belfast City Council: ▪ Superfast Broadband coverage (>=30Mbps) – 99.2%

[185] HM Government (2018) *The future of UK aviation.* Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/769696/aviation-2050-print.pdf
[186] Civil Aviation Authority (2023) *Size of Reporting Airports July 2022 – June 2023.* Available: Table_01_Size_of_UK_Airports_PDF.rdl (caa.co.uk)
[187] Ofcam (2024) *Communications Market Report 2024*. Available: Communications Market Report 2024
[188] Northern Ireland Assembly (2021) *An overview of the Digital Divide in Northern Ireland.* Available: An overview of the Digital Divide in Northern Ireland - Research Matters (assemblyresearchmatters.org)
[190] Northern Ireland Assembly (2021) *An overview of the Digital Divide in Northern Ireland.* Available: An overview of the Digital Divide in Northern Ireland - Research Matters (assemblyresearchmatters.org)
[191] Northern Ireland Assembly (2021) *An overview of the Digital Divide in Northern Ireland.* Available: An overview of the Digital Divide in Northern Ireland - Research Matters (assemblyresearchmatters.org)

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	broadband – higher than all other UK nations. For the first time, full-fibre broadband is available to over half of homes in all four of the UK nations. Northern Ireland leads the way, with over nine in 10 homes (91%) able to get full fibre.[189]		▪ Broadband coverage <2 Mbps – 0.0% <u>Lisburn & Castlereagh City Council:</u> ▪ Superfast Broadband coverage (>=30Mbps) – 94.1% ▪ Broadband coverage <2 Mbps – 1.5% <u>Mid & East Antrim Borough Council:</u> ▪ Superfast Broadband coverage (>=30Mbps) – 90.4% ▪ Broadband coverage <2 Mbps – 3.6%
	Explanatory Text and anticipated future trends: Standard, superfast and ultrafast denote different broadband speed categories: ▪ Standard broadband has download speeds of less than 30Mbps; ▪ Superfast broadband has download speeds between 30Mbps and 300Mbps; ▪ Ultrafast broadband has download speeds of greater than 300Mbps; **Without a strategic approach to development and infrastructure in the region, it is likely to prove more difficult to ensure that new residents have the choice of being able to access to ultrafast broadband and also to build on existing provisions**.		
Electricity Network	In the UK there are 14 licensed distribution networks, owned by six different groups, with each responsible for a regional distribution services area. Northern Ireland Electricity Networks Limited is responsible for electricity transmission across Northern Ireland[192].	Northern Ireland Electricity Networks (NIE Networks) is the owner of the electricity transmission and distribution networks in Northern Ireland, transporting electricity to over 900,000 customers including homes, businesses and farms. They employ over 1,500 employees and invest £100 million in the network annually.[193]	Reported at National and Regional level

[189] Ofcome (2023) *More than nine in 10 Northern Ireland homes can access full-fibre broadband.* Available: More than nine in 10 Northern Ireland homes can access full-fibre broadband - Ofcom

[192] Energy Network Association, Electricity Transmission Map. Available: https://www.energynetworks.org/operating-the-networks/whos-my-network-operator

[193] Northern Ireland Electricity Works (2024) *About Us.* Available: About Us | Northern Ireland Electricity Networks (nienetworks.co.uk)

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	Explanatory Text and anticipated future trends: The electricity distribution networks, in the UK carry electricity from the high voltage transmission grid to industrial, commercial and domestic users. In terms of renewable energy, wind makes up the greatest proportion used in NI. Other types of renewables technologies used include biogas, PV and water[194].		
Water Treatment Works and Sewage Treatment Works	In Northern Ireland water and sewerage services are provided by NI Water. They supply 560 million litres of clean water a day for almost 1.8 million people as well as treating 320 million metres of wastewater each year[195]. The company operates 40 impounding reservoirs, 44 major water treatment works (65 in total), 490 service reservoirs, 287 water pumping stations and 26,500 kilometres of water mains. The company also owns and operates 1,194 wastewater pumping stations, 14,500 kilometres of sewers and 1,124 wastewater treatment works.[196]	Reported at National level	Reported at National level
	Explanatory Text and anticipated future trends: A number of the WWTW works within Northern Ireland, and the ETP region are operating at or near their capacity[197]. Development in the ETP Region will need to **respond to capacity issues in terms of these types of infrastructure. In some instances, development may need to support the delivery of new infrastructure where capacity issues emerge. Without a strategic approach to development, capacity issues in the region may prove more difficult to address in manner which benefits the highest number of residents in the plan area.**		

[194] Department for the Economy (2022) *Electricity Consumption and Renewable Generation in Northern Ireland.* Available: Electricity Consumption and Renewable Generation in Northern Ireland: Year Ending December 2021 | Department for the Economy (economy-ni.gov.uk)

[195] NI Water (2024) *About Us.* Available: About Us - Northern Ireland Water (niwater.com)

[196] NI Water (2024) *Water Projects.* Available: Northern Ireland Water | Water Projects (waterprojectsonline.com)

[197] NI Water (2024) *Wastewater System Capacity Information.* Available: Wastewater System Capacity Information (niwater.com)

	National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
Major Utilities (major gas mains, overhead lines etc.)	There are currently eight gas terminals operating across the UK. Phoenix Natural Gas (East), firmus energy (North-South) and SGN Natural Gas (West). Premier Transmission Limited (Island Magee), Belfast Gas Transmission (Belfast) and GNI (UK) Limited (North-South) are the operators responsible for the transmission of gas across Northern Ireland in the specified regions. Currently there are four gas distribution networks across the UK[198].	In the ETP region Firmus Energy and Pheonix Natural Gas are the two network operators and the gas suppliers are Firmus Energy and SSE Airtricity.[199]	Reported at National and Regional level.

Explanatory Text and anticipated future trends:

There are currently four gas terminals in the ETP Region, one at Cloghan Point and three in Belfast. There are **areas of the ETP Region within which gas pipelines and overhead power lines are present to facilitate supply. Without a strategic approach to development it is less likely that development and new infrastructure is provided to complement the existing distribution of this infrastructur**e.

[198] Energy Network Association, Gas Transmission Map. Available: https://www.energynetworks.org/operating-the-networks/whos-my-network-operator

[199] Power To Switch (2025) Compare Gas Prices in Northern Ireland & Switch | Power to Switch

C.12 Communities – Health & Wellbeing

	International / National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
Population	The population of the UK in mid-2023 was estimated at 68,265,209, of whom 1,920,382 live in Northern Ireland[200]. 49.2% of the Northern Irish population are male, with 50.8% female. Since 2011 there has been an average annual percentage change in the Northern Irish population of 0.5% (an overall increase of 92,000 people). The number of 15-64 year olds has increased from 790,300 to 1,211,400 between 1926 and 2021 however, the increase in residents aged 65 years or older was even greater, increasing from 101,800 to 326,500 across the same timeframe. The number of children aged 0-14 hasn't changed from 1926, resulting in an aging population[201]. Between mid-2014 and mid-2018, the median age of the UK population increased from 40.0 years to 40.1 years. However, in the year to mid-2019, it increased at a faster rate to reach 40.3 years following a combination of fewer	As of mid-2020, the ETP region had a population estimated at 934,267[202].	2021 census population data[203]: Antrim & Newtownabbey Borough Council: ▪ 145,700 people, an increase of 5% from the 2011 census ▪ Approximately 64% are of working age (15-64) Ards & North Down Borough Council: ▪ 163,700 people, an increase of 4% from the 2011 census ▪ Approximately 61% are of working age (15-64) Belfast City Council: ▪ 345,400 people, an increase of 3% from the 2011 census ▪ Approximately 67% are of working age (15-64) Lisburn & Castlereagh City Council:

[200] Office for National Statistics (2024) *Estimates of the population for the UK, England, Wales, Scotland, and Northern Ireland: Mid-2023 edition of this dataset.* Available: Estimates of the population for the UK, England, Wales, Scotland, and Northern Ireland - Office for National Statistics (ons.gov.uk)

[201] NISRA (2022) *Census 2021 main statistics demography tables – age and sex.* Available: Census 2021 main statistics demography tables – age and sex | Northern Ireland Statistics and Research Agency (nisra.gov.uk)

[202] OpenDataNI (2021) *Local Government Districts by singlw year of age and gender (mid 2001 ro mid 2020).* Available: Portal | Local Government Districts by single year of age and gender (mid-2001 to mid-2020) (opendatani.gov.uk)

[203] NISRA (2022) *Census 2021 infographics*. Available: Census 2021 infographics | Northern Ireland Statistics and Research Agency (nisra.gov.uk)

	International / National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	births, fewer deaths and lower net international migration. Larger cities tend to have the youngest populations, with rural areas typically having older populations.		▪ 149,100 people, an increase of 11% from the 2011 census ▪ Approximately 63% are of working age (15-64) <u>Mid & East Antrim Borough Council:</u> ▪ 139,000 people, an increase of 3% from the 2011 census ▪ Approximately 63% are of working age (15-64)
	Explanatory Text and anticipated future trends: The population in the UK is measured through the Census. This provides an estimate of the overall population the UK and its distribution within countries and regions. The last Census was undertaken in 2021. Northern Irelands Statistics and Research Agency (NISRA) also provides mid-year population estimates[204]. The population of Northern Ireland is projected to reach 1.939 million by mid 2045. Over the same period natural change in Northern Ireland is projected to decrease due to a rise in deaths and a fall in births. The ageing of the population is projected to continue and by mid-2027, the number of people aged 65 and over is projected to overtake the number of children. Northern Ireland is projected to have the largest increase in the pension age population across the UK.[205]		
Life Expectancy	In 2021-2023, male life expectancy in Northern Ireland was 78.38 years and. 82.5 for females, similar to 2020-22[206].	Reported at Council Area level.	The following council areas have specific local life expectancies as of 2019-20[207]: <u>Antrim & Newtownabbey Borough Council</u>: ▪ Male life expectancy – 78.8 ▪ Female life expectancy – 82.6

[204] NISRA (2024) *Mid-Year Population Estimates*. Available: Mid Year Population Estimates | Northern Ireland Statistics and Research Agency (nisra.gov.uk)

[205] NISRA (2022) *2020-based Interim Population Projections for Northern Ireland.* Available: 2020-based interim population projections - statistical bulletin (nisra.gov.uk)

[206] Office for National Statistics (2024) *Life expectancy in Northern Ireland 2021-23: Headline Figures..* Available: Life expectancy in Northern Ireland 2021-23: headline figures | Department of Health

[207] NISRA (2020) hscims-life-ni-tables-2018-20.xlsx (live.com)

International / National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
		Ards & North Down Borough Council: ▪ Male life expectancy – 79.6 ▪ Female life expectancy – 82.7 Belfast City Council: ▪ Male life expectancy – 75.8 (lower than the Northern Irish average) ▪ Female life expectancy – 80.5 (lower than the Northern Irish average) Lisburn & Castlereagh City Council: ▪ Male life expectancy – 80.3 ▪ Female life expectancy – 83.3 Mid & East Antrim Borough Council: ▪ Male life expectancy 79.0 ▪ Female life expectancy – 82.3

Explanatory Text and anticipated future trends:

Life expectancy (the number of years people are expected to spend in different health states among local authority areas in the UK) is measured by the Office for National Statistics (ONS).

Life expectancy improvements have been slow for the last decade, and the latest estimates of life expectancy at birth are back to the same level as 2010 to 2012 for females and slightly below the 2010 to 2012 level for males.

The coronavirus (COVID-19) pandemic led to increased mortality in 2020 and 2021, and the impact of this is seen in the life expectancy estimates for 2020 to 2022.

	International / National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
Disability Living Allowance & Other benefits	As of November 2024, 4,070 people are claiming Job Seeker's Allowance (JSA) in Northern Ireland. As of November 2024, there were 72,220 claimants of Disability Living Allowance (DLA) and 77,290 claimants of Carer's Allowance in Northern Ireland[208].	Within following ETP region, residents have claimed the following benefits as of November 2024[209]: ▪ JSA – 2,060 ▪ DLA – 18,080 of under 16 eligible population claimants and 16,340 pension age eligible population claimants.	Within following council areas, residents have claimed the following benefits as of November 2024[210]: Antrim & Newtownabbey Borough Council: ▪ JSA – 230 (-6.0% since November 2024) ▪ DLA – 2,310 of pension age eligible population (9.5%) and 2,820 of under 16 eligible population (9.7%) Ards & North Down Borough Council: ▪ JSA – 290 (-18.6% since November 2024) ▪ DLA – 2,570 of pension age eligible population (7.3%) and 2,440 of under 16 eligible population (8.2%) Belfast City Council: ▪ JSA – 1,000 (-9.1% since November 2024) ▪ DLA – 7,240 of pension age eligible population (15.0%) and 8,020 of under 16 eligible population (12.1%) Lisburn & Castlereagh City Council: ▪ JSA – 210 (-7.5% since November 2024)

[208] NISRA (2024*) Benefit Statistics Summary Publication 2024.* Available: NI Benefits Statistics Summary - November 2024

[209] NISRA (2024) *Benefits Statistics Summary Publication 2024*. Available: Benefits Statistics Summary Publication (Accredited Official Statistics) - November 2024 | Department for Communities

[210] NISRA (2024) *Benefits Statistics Summary Publication 2024*. Available: Benefits Statistics Summary Publication (Accredited Official Statistics) - November 2024 | Department for Communities

	International / National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
			▪ DLA – 2,140 of pension age eligible population (8.5%) and 2,370 of under 16 eligible population (7.8%) Mid & East Antrim Borough Council: ▪ JSA – 330 (-8.3% since November 2024) ▪ DLA – 2,080 of pensions age eligible population (7.9%) and 2,430 of under 16 eligible population (9.4%)
	Explanatory Text and anticipated future trends: The number of people claiming Jobseeker's Allowance in November 2024 represents a decrease of 12% (580) on a year earlier and a decrease of 4% (190) since August 2024. The decreasing trend is largely due to the introduction of Universal Credit (UC) and the rise in claimants in early 2020 can be attributed to the impact of the COVID-19 pandemic[211]. The number of households on Universal Credit increased from 161,250 in May 2024 to 169,150 in August 2024. The number of claimants reached 197,780[212].		
General Health	Between 2016-18 and 2020-22, Healthy Life Expectancy (HLE) increased for both males and females. Male HLE increased by 1.5 years from 59.7 years in 2016-18 to 61.2 years in 2020-22. Over the same period, female HLE increased by 1.9 years from 60.8 to 62.7 years.[213]	Reported at Council Area level	Antrim & Newtownabbey Borough Council: ▪ 14 Suicides in 2022[219] ▪ Smoking prevalence in 2013/14 was 21.5%[220] ▪ For males healthy life expectancy at birth was 62.9 and for females 61.1[221] Ards & North Down Borough Council:

[211] NISRA (2024) *Benefits Statistics Summary Publication 2024*. Available: Benefits Statistics Summary Publication (Accredited Official Statistics) - November 2024 | Department for Communities

[212] Department for Communities (2024) *Northern Ireland Benefits Statistics Summary August 2024.* Available: NI Benefits Statistics Summary - August 2024

[213] Department of Health (2023) *Life Expectancy in Northern Ireland.* Available: Life Expectancy in Northern Ireland 2020-22 (health-ni.gov.uk)

[219] Department of Health (2022) *Suicide Statistics 2022.* Available: Suicide statistics 2022 | Northern Ireland Statistics and Research Agency (nisra.gov.uk)

[220] Public Health Agency (2015) *Tobacco Control Northern Ireland*. Available:Tobacco Control Northern Ireland 2015.pdf (hscni.net)

[221] ONS (2019) *Health state life expectancy at birth and at age 65 years by local areas, UK*. Available: Health state life expectancy at birth and at age 65 years by local areas, UK - Office for National Statistics (ons.gov.uk)

	International / National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	In 2023, 221 suicides were registered, which has remained similar from 237 suicides in 2021 but it should be noted annual fluctuations in registration-based figures build in procedural delays[214]. In 2022, 13.3% were caused by drug poisoning[215]. Almost four-fifths (78%) of adults aged 18 and over drink alcohol, with 15% of men and 9% of women to report drinking on three or more days per week according to the NI Health Survey.[216] The NI Health Survey also found that in 2023/24, 13% of respondents were current cigarette smokers; similar to the 2022/23 results. Smoking prevalence has fallen fairly consistently over the last ten years from 22% in 2014/15. from 24% in 2010/11. Additionally, 10% of respondents reported that they currently use e-cigarettes or vaping devices (up from 9% in 2022/23). During 2022/23 a total of 3,974 people were recorded on the Substance Misuse Database having presented to services for problem substance misuse, one third (34.2%) indicated drug misuse only, two-fifths (37.1%) alcohol misuse only and 28.7% indicated both drug and alcohol misuse[217].		▪ 12 Suicides in 2022 ▪ Smoking prevalence in 2013/14 was 17.4% ▪ For males healthy life expectancy at birth was 64.4 and for females 63.3 Belfast City Council: ▪ 53 Suicides in 2022 ▪ Smoking prevalence in 2013/14 was 25.1% ▪ For males healthy life expectancy at birth was 57.4 and for females 57.3 Lisburn & Castlereagh City Council: ▪ 14 Suicides in 2022 ▪ Smoking prevalence in 2013/14 was 16.5% ▪ For males healthy life expectancy at birth was 68.4 and for females 63.6 Mid & East Antrim Borough Council: ▪ 10 Suicides in 2022 ▪ Smoking prevalence in 2013/14 was 20.7% ▪ For males healthy life expectancy at birth was 61.7 and for females 61.6

[214] NISRA (2025) *Northern Ireland Suicide Statistics, 2023*. Available: Northern Ireland Suicide Statistics, 2023 | Northern Ireland Statistics and Research Agency
[215] NISRA (2023) *Northern Ireland Suicide Statistics, 2022*. Available: Suicide Statistics in Northern Ireland 2022 (nisra.gov.uk)
[216] DfH (2024) *Health Survey (NI): First Results 2023/24.* Available: Health Survey (NI): First Results 2023/24 | Department of Health
[217] DfH (2024) *Health Survey (NI): First Results 2023/24*. Available: Substance Misuse Database 2023-24

	International / National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	According to a health survey undertaken in 2022/23, around 20% of respondents had a high GHQ12 score, indicating a mental health problem (18% males and 22% females), significantly lower than in 2020/21 (27%) however it is similar to 2021/22 (21%)[218].		
	Explanatory Text and anticipated future trends: Belfast City Council has the highest number of suicides and highest prevalence of smoking across the ETP region. Figures in **Appendix D** show noise levels.		
Specific Health Indicators – Obesity, Cancer etc.	The latest Health Survey NI data in 2023/24 shows that 64% of adults were either overweight (37%) or obese (28%)[222]. There were 69,103 cases of cancer diagnosed during 2017-2021 in Northern Ireland. On average this was 13,821 cases per year. During 2017-2021 the most common cancer types among males were non-melanoma skin cancer (29.9%), prostate cancer (17.9%) and lung cancer (including trachea) (9.6%). Among females they were non-melanoma skin cancer (24.2%), breast cancer (22.9%) and lung cancer (including trachea) (10.0%)[223].	Three areas within the ETP region are within the top five highest local authorities for NI premature (under 75 years) death rates, heart and circulatory diseases (CVD) 2020-22[224]: ▪ Belfast City – 88.4 per 100,000 ▪ Mid and East Antrim – 71.5 per 100,000 ▪ Antrim and Newtownabbey – 68.2 per 100,000	Antrim & Newtownabbey Borough Council: ▪ Average number of cases of cancer diagnosed per year during 2008-2012: 895[225] Ards & North Down Borough Council: ▪ Average number of cases of cancer diagnosed per year during 2008-2012: 1,172 Belfast City Council: ▪ Average number of cases of cancer diagnosed per year during 2008-2012: 2,271 Lisburn & Castlereagh City Council:

[218] DfH (2023) *Health Survey (NI): First Results 2022/23*. Available: Health Survey (NI): First Results 2022/23 | Department of Health (health-ni.gov.uk)

[222] Department of Health (2024) *Health Survey (NI) First Results 2023/24*. Available: Health Survey NI 2023/24 Full Report

[223] Northern Ireland Cancer Registry (2024) *All cancers.* Available: All cancers official statistics report.pdf

[224] Belfast Heart Foundation Northern Ireland (2025) *Northern Ireland Factsheet*. Available: BHF Northern Ireland CVD Statistics

[225]

	International / National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
			▪ Average number of cases of cancer diagnosed per year during 2008-2012: 887 Mid & East Antrim Borough Council: ▪ Average number of cases of cancer diagnosed per year during 2008-2012: 969
	Explanatory Text and anticipated future trends: Data on specific health indicators has been collected in the Health Survey (NI), although data at a local authority level is limited and is reported by varying sources.		
Physical Activity including Walking & Cycling	In 2023/24, 55% of the population of Northern Ireland aged 19 and over met current recommended exercise time (of at least 150 minutes of moderate intensity activity per week). Males (58%) remained more likely than females (51%) to meet recommendations for physical activity.[226] In 2023/24, 63% of the population said that they would be likely to walk short journeys (up to 3km / 2 miles)[227]. In 2023/24, less than 3 in 10 own or have access to a bicycle in Northern Ireland. Of those who owned or had access to a bicycle, just under one third (31%) had cycled in the previous 4 weeks. Additionally, 16% of	Reported at Council Area level.	In 2017-2019 journeys made by walking and cycling were estimated to make up the following percentage of all journeys in each council area[228]: Antrim & Newtownabbey Borough Council: ▪ Walking – 17% ▪ Bicycle – 1% Ards & North Down Borough Council: ▪ Walking – 18% ▪ Bicycle – 0% Belfast City Council: ▪ Walking – 30% ▪ Bicycle – 2% Lisburn & Castlereagh City Council:

[226] Department of Health (2024) *Health Survey (NI) First Results 2023/24*. Available: Health Survey NI 2023/24 Full Report

[227] Department for Infrastructure (2024) *The Walking and Cycling in Northern Ireland 2023/24 report has been published today*. Available: The Walking and Cycling in Northern Ireland 2023/24 report has been published today | Department for Infrastructure

[228] Department for Infrastructure (2021) *Travel Survey for Northern Ireland in-depth report 2017-2019*. Available: Travel Survey for Northern Ireland in-depth report 2017-2019 | Department for Infrastructure (infrastructure-ni.gov.uk)

	International / National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	respondents said they would be likely to cycle short journeys (up to 5km / 3 miles).		▪ Walking – 19% ▪ Bicycle – 1% Mid & East Antrim Borough Council: ▪ Walking – 16% ▪ Bicycle – 1%
	Explanatory Text and anticipated future trends: The Northern Ireland average for walking was 18% and for cycling 1%. Belfast City Council had higher levels than the national average for both walking and cycling. As new development occurs in the ETP Region opportunities to encourage physical activity among residents including the uptake of more active modes of transport in the plan area are likely to emerge. **This may include through the incorporation of open space which could serve a large number of residents or the appropriate integration of new active transport routes. It is expected that without a more strategic approach to development in the ETP Region these opportunities are less likely to be achieved**.		
Crime & Safety	Across the 2023/24 year in Northern Ireland, 104,344 crimes were recorded in Northern Ireland, 54 crimes per 1,000 population, compared with the peak of 81 crimes per 1,000 population in 2002/03. Violence against the person and sexual offences made up the largest portion of total offences (46%) followed by robbery and theft offences (including burglary) and criminal damage (40%)[229]. In 2023, there were 66 fatal collisions on Northern Ireland's roads resulting in 71	Reported at Council Area level.	Antrim & Newtownabbey Borough Council: ▪ Between January and June 2024, 220 people were affected by road traffic collisions, with 3 killed, 28 seriously injured and 189 slightly injured[231]. ▪ Between March 2024 and February 2025, 6,613 crimes were committed, a decrease of 5.6% from the previous year[232]. ▪ 2,151 domestic abuse crimes occurred in Antrim and Newtownabbey in 2024[233]. Ards & North Down Borough Council:

[229] NISRA (2024) *Trends in Police Recorded Crime in Northern Ireland.* Available: Trends in Police Recorded Crime in Northern Ireland 1998/99 to 2023/24

[231] PSNI (2024) *Police Recorded Injury Road Traffic Collisions and Casualties*. Available: Police Recorded Injury Road Traffic Collisions and Casualties June 2024.pdf

[232] PSNI (2025) *Police Recorded Crime in Northern Ireland*. Available: Police Recorded Crime Statistics | PSNI

[233] PSNI (2025) *Domestic Abuse Incidents and Crimes Recorded by the Police in Northern Ireland*. Available: Domestic Abuse Incidents and Crime Recorded in Northern Ireland Monthly Update to 31st December 2024

	International / National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
	fatalities and 5,058 injury collisions were recorded resulting in a total of 7,985 casualties[230].		▪ Between January and June 2024, 265 people were affected by road traffic collisions, with 2 killed, 34 seriously injured and 229 slightly injured[231]. ▪ Between March 2024 and February 2025, 5,530 crimes were committed, a decrease of 14.1% from the previous year[232]. ▪ 2,122 domestic abuse crimes occurred in Ards & North Down in 2024[233]. Belfast City Council: ▪ Between January and June 2024, 748 people were affected by road traffic collisions, with 0 killed, 66 seriously injured and 682 slightly injured[231]. ▪ Between March 2024 and February 2025, 32,161 crimes were committed, a decrease of 4.4% from the previous year[232]. ▪ 8,062 domestic abuse crimes occurred in Belfast City in 2024[233]. Lisburn & Castlereagh City Council: ▪ Between January and June 2024, 247 people were affected by road traffic collisions, with 0 killed, 25 seriously injured and 222 slightly injured[231]. ▪ Between March 2024 and February 2025, 5,429 crimes were committed, a decrease of 9.4% from the previous year[232]. ▪ 1,797 domestic abuse crimes occurred in Lisburn & Castlereagh City in 2024[233]. Mid & East Antrim Borough Council:

[230] NI Direct (2023) *NI Road Safety Partnership.* Available: NI Road Safety Partnership | nidirect

	International / National (UK & Northern Ireland)	Regional (ETP)	Local (Council Areas)
			▪ Between January and June 2024, 195 people were affected by road traffic collisions, with 1 killed, 29 seriously injured and 165 slightly injured[231]. ▪ Between March 2024 and February 2025, 5,954 crimes were committed, a decrease of 6.5% from the previous year[232]. ▪ 1,978 domestic abuse crimes occurred in Mid & East Antrim in 2024[233].
	Explanatory Text and anticipated future trends: The number of crimes in the ETP region decreased in all council areas between March 2024 and February 2025 from the previous year. The largest number of crimes occurred in Belfast City Council and the least in Lisburn & Castlereagh City Council. Belfast City Council also had the highest number of people affected by road traffic collisions.		

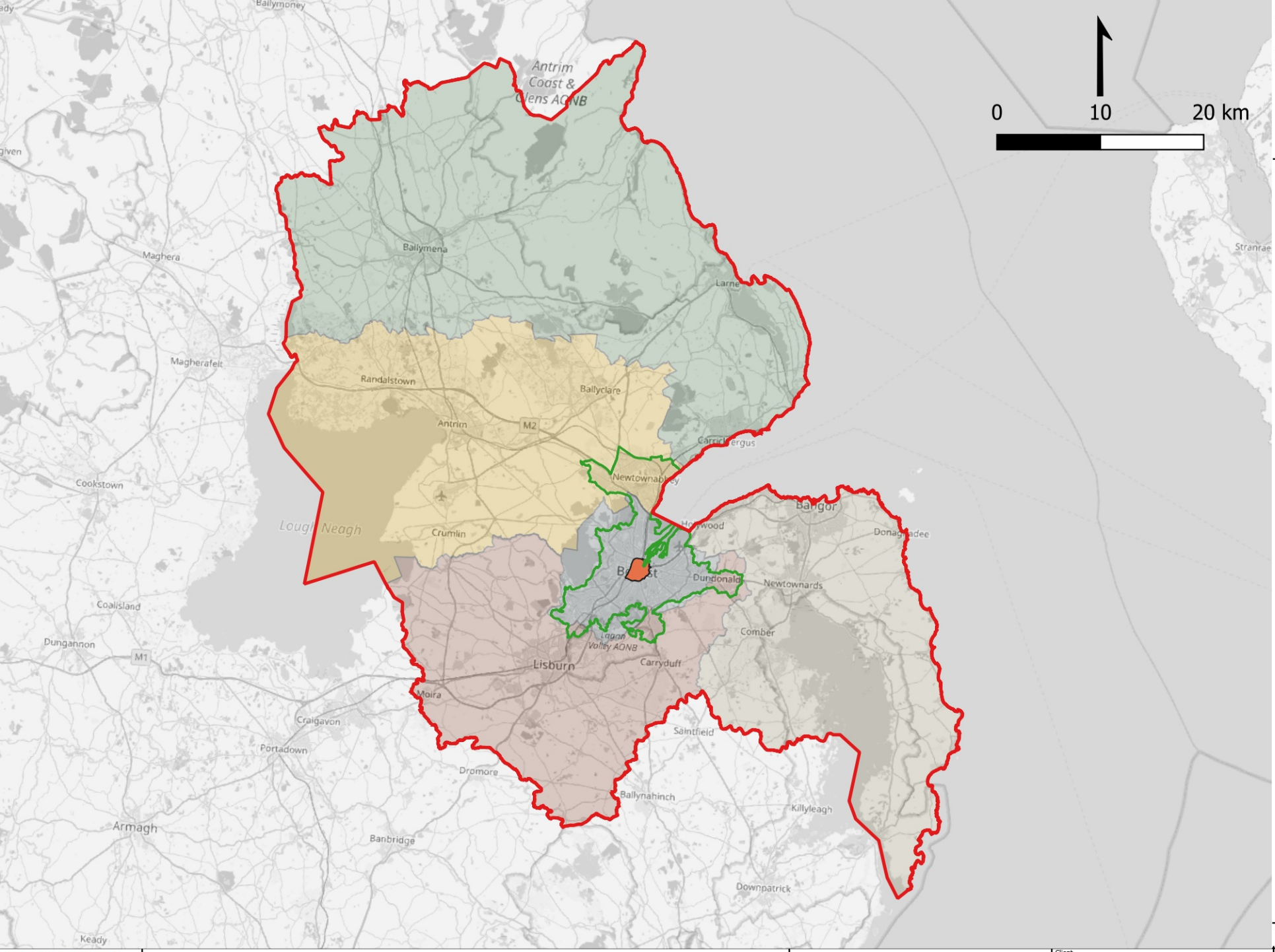
C.13 Rural Population

	National (UK & Northern Ireland)	Regional (ETP Area)	Local (Council Areas)
Rural Population	Around 670,000 people (36%) of the NI population live in a rural area. Between 2001 and 2018, rural populations grew by 16% in comparison to 6% in urban areas. The average commuting distance per day in 2021 for rural populations was 11.7 miles, compared to 5.8 miles for urban populations. Total miles travelled per person per year for rural people was 1,261 miles in 2021, whereas urban people travelled a total of 646 miles per person per year. Other purposes such as business recorded an average of 18.9 miles and 12.5 miles per day, and total miles of 543 and 330 per person per year for rural and urban populations respectively. In 2023, 80% of the population were reported to mainly work separate from home, indicating they travel to work. The most popular method of travel to work in 2021 was by private car/van at 90%, with 7% walking, 2% other (including taxis, motorbikes etc), 1% train, 0% by bus and 0% cycling. Similar trends are recorded in urban areas, with 82% using private car/vans, 10% walking, 3% using other, 3% using the bus, and 1% using the train and 1% cycling. Public transport access also varies locationally, with only 17% of the rural population being a three minute or less walk to the nearest bus stop, compared to 38% of the urban population as reported in 2021. Approximately 8% of the rural population in 2021 are 44 minutes or longer walking distance to the nearest bus stop, and 9% 27-43 minutes, compared to 0% for both times in urban locations. In rural locations, 18% reported a bus at least once an hour and 12% once a day or less in comparison to 66% and 1% in urban locations. Accessing key services is therefore more difficult for the rural than the urban population. In some rural areas, services are simply inaccessible without private transport, and journey times to key services by car are on average twice as long for rural dwellers as for those living in towns and cities. In 2024, although more than half (58%) of NI businesses were in rural areas, rural businesses accounted for less than a quarter (21%) of employees. Rural workers (90%) were also much more likely to use their own transport to commute than those from urban areas (82%), though this gap has narrowed. Rural dwellers wait longer for emergency service response than their urban counterparts, with ambulance waiting times continuing to increase in rural areas. Similar proportions of urban and rural households are in relative poverty (19% urban, 16% rural) or absolute poverty (16% urban, 11% rural). **Explanatory text and anticipated future trends:** Future trends for Northern Ireland's rural population include ageing demographics, with a high age dependency rate and growth in sectors with like renewable energy and tourism[234]. Digital connectivity is likely to continue to improve with agricultural practices likely to shift towards sustainability and innovation, with likely population decline due to urban migration.		

[234] DAERA (2025) *Key Rural Issues.* Available: Key Rural Issues | Department of Agriculture, Environment and Rural Affairs

Appendix D. Baseline Figures

D.1 ETP Regions



GENERAL NOTES

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

2. ONLY WRITTEN DIMENSIONS SHOULD BE USED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS.

KEY PLAN



Legend

ETP Area

- ETP Area

Belfast Metropolitan Area

- Belfast Metropolitan Area

Belfast City Centre

- Belfast City Centre

Council Areas

- Ards and North Down Borough Council
- Antrim and Newtownabbey
- Belfast City Council
- Lisburn and Castlereagh City Council
- Mid and East Antrim Borough Council

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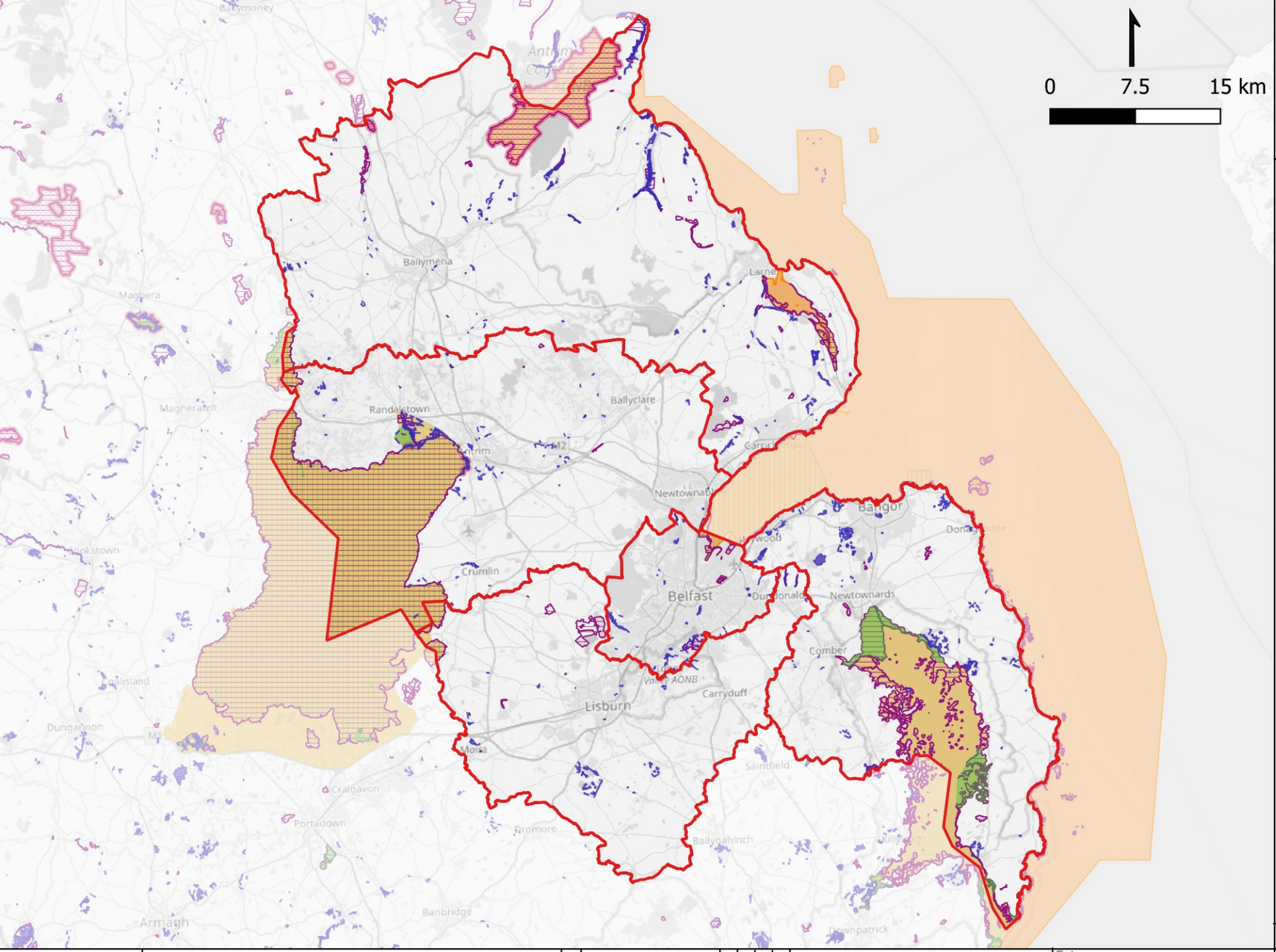
Project: EASTERN TRANSPORT PLAN

Purpose: ISA Report

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ETP Regions Location	NMC	AJ	AJ
	Date 13/05/2025	Date 13/05/2025	Date 13/05/2025

Status	Drawing Number	Rev
For Issue	1	1

D.2 Biodiversity



GENERAL NOTES

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

2. ONLY WRITTEN DIMENSIONS SHOULD BE USED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS.

KEY PLAN



ETP - Biodiversity

- ETP area
- Woodland Priority Habitats
- National Nature Reserves and Nature Reserves
- Areas of Special Scientific Interest
- Special Protection Areas
- Special Areas of Conservation
- Ramsar
- Marine pSPA

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1	Updated for ISA Report	CA	Feb 25	JC	PMcE
0	For Issue	JC	15/12	CA	PMcE

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Project: EASTERN TRANSPORT PLAN

Purpose: ISA Report

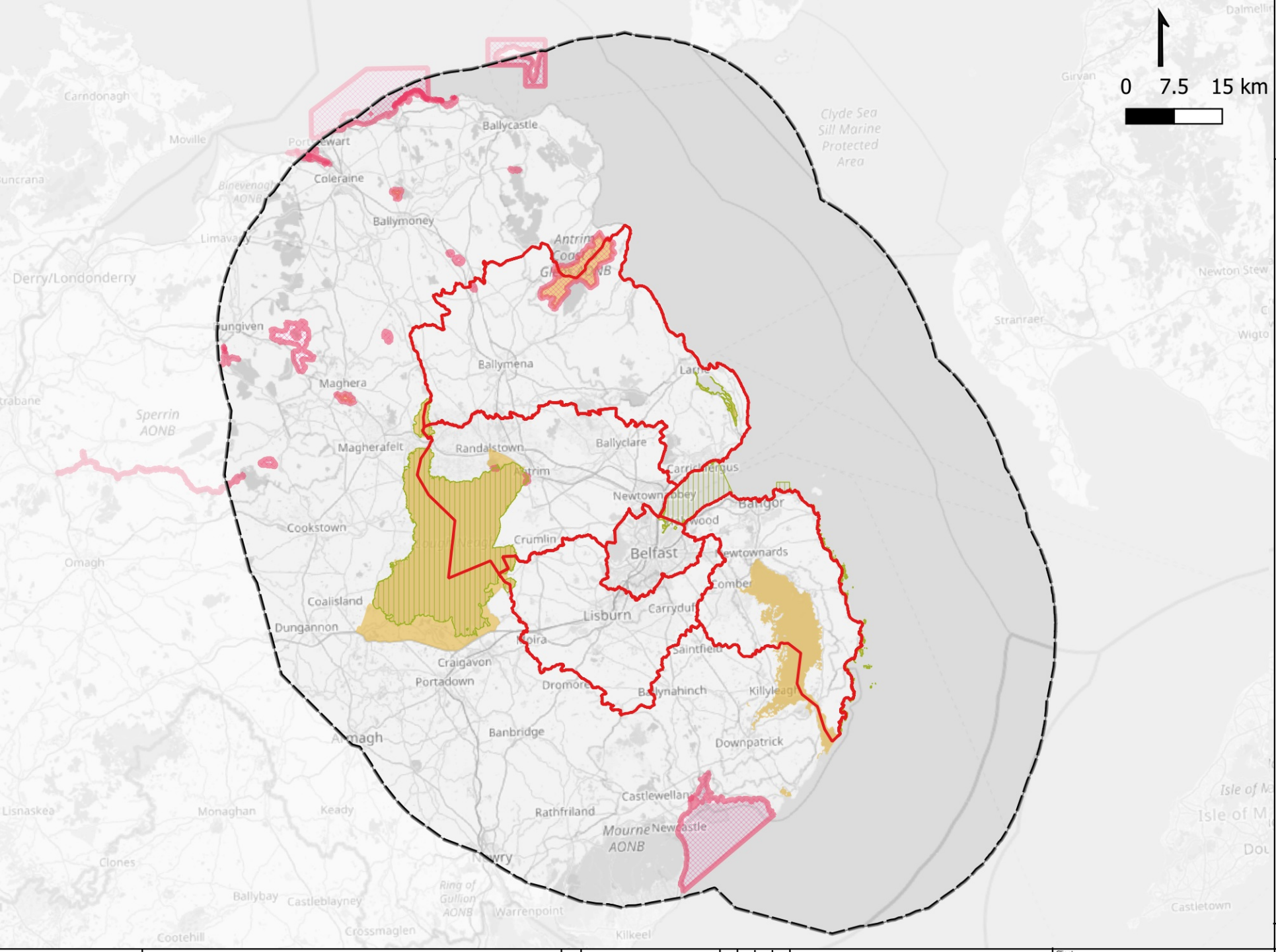
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Biodiversity	JC	CA	PMcE
	Date 15/12/2022	Date 15/12/2022	Date 15/12/2022

Status: F

Drawing Number: 7

Rev: 1

D.3 N2K Sites within 30km



GENERAL NOTES

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KEY PLAN



ETP area 30km Buffer

- ETP area 30km Buffer
- ETP area
- Special Protection Areas
- Special Areas of Conservation
- Ramsar

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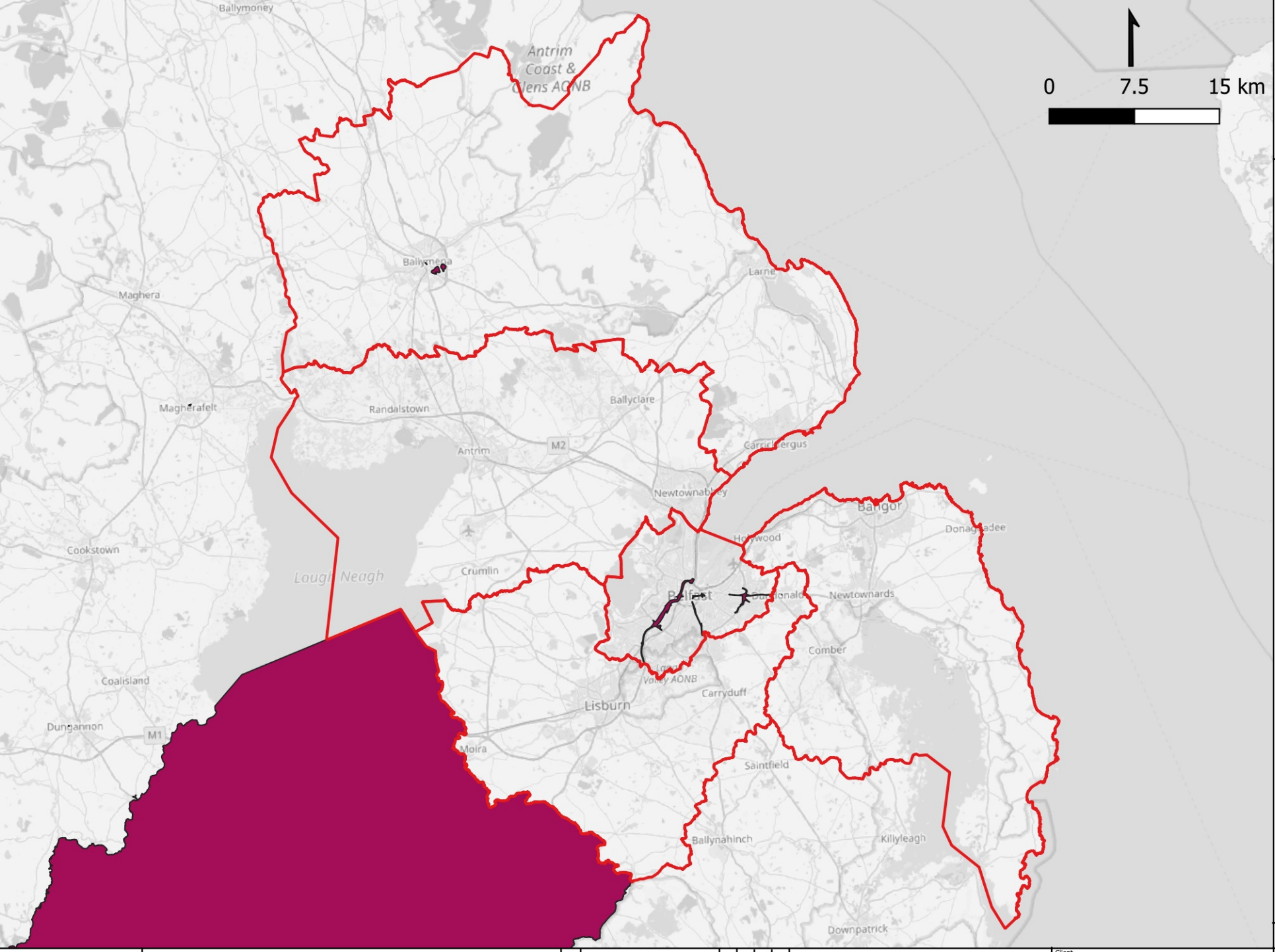
Project: EASTERN TRANSPORT PLAN

Purpose: ISA Report

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N2K Sites within 30km	JC	CA	PMcE
	Date 15/12/2022	Date 15/12/2022	Date 15/12/2022

Status	Drawing Number	Rev
F	1	1

D.4 Air Quality



GENERAL NOTES

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

2. ONLY WRITTEN DIMENSIONS SHOULD BE USED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS.

KEY PLAN



ETP - Air Quality

ETP area

AQMA

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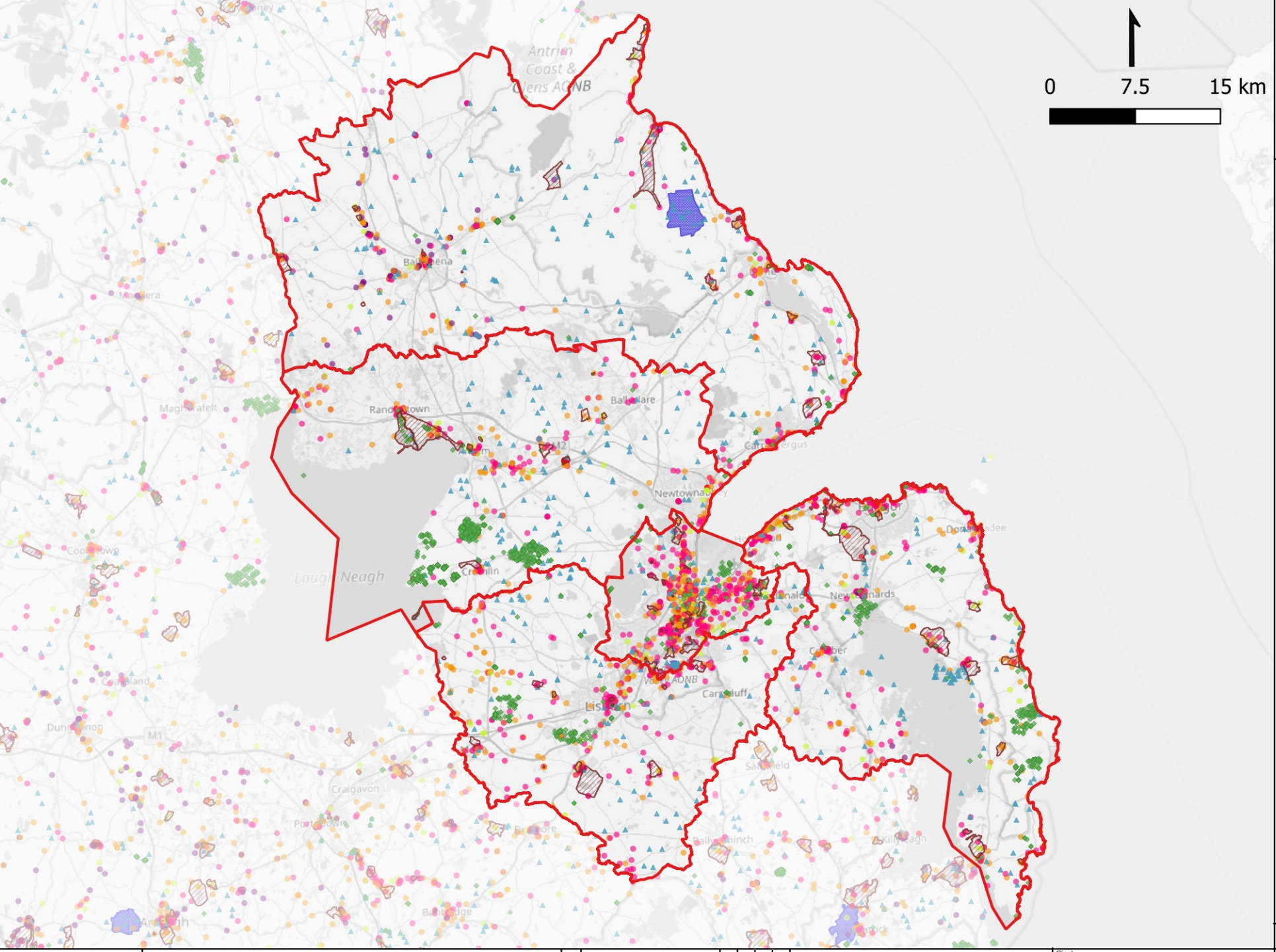
Project: EASTERN TRANSPORT PLAN

Purpose: ISA Report

Title	Des/Drawn	Checked	Authorised
Air Quality	JC	CA	PMcE
	Date 15/12/2022	Date 15/12/2022	Date 15/12/2022

Status	Drawing Number	Rev
F	9	1

D.5 Cultural Heritage



GENERAL NOTES

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

2. ONLY WRITTEN DIMENSIONS SHOULD BE USED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS.

KEY PLAN



ETP - Cultural Heritage

- ETP area
- Historic Parks and Gardens
- Defence Heritage Sites
- Scheduled Monuments

Listed Buildings

- Grade A
- Grade B
- Grade B+
- Grade B1
- Grade B2

Areas of Significant Archaeological Interest

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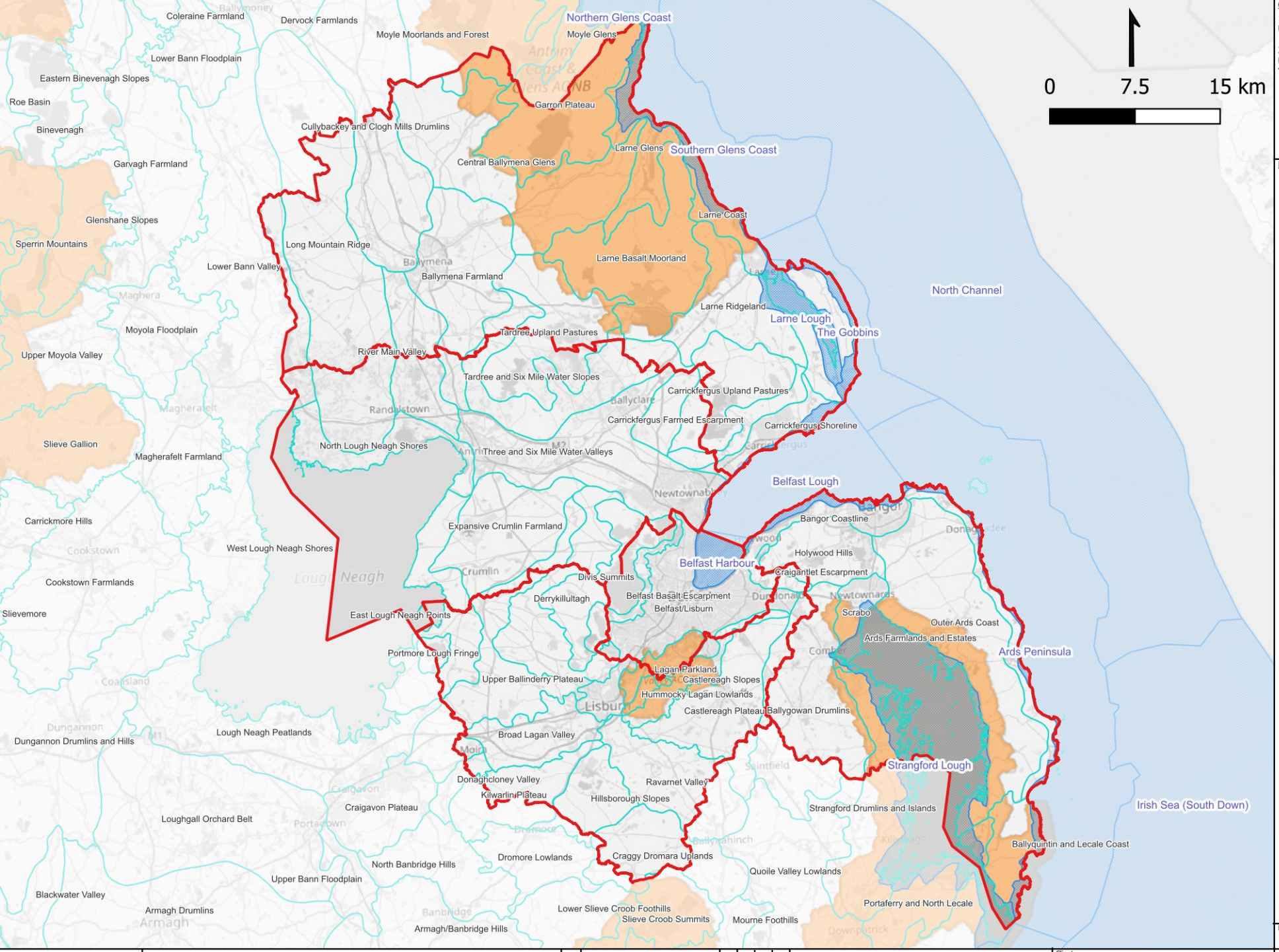
Project: EASTERN TRANSPORT PLAN

Purpose: ISA Report

Title	Des/Drawn	Checked	Authorised
Cultural Heritage	JC	CA	PMcE
	Date 15/12/2022	Date 15/12/2022	Date 15/12/2022

Status	Drawing Number	Rev
F	4	1

D.6 Landscape



GENERAL NOTES

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

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KEY PLAN



ETP - Landscape

- ETP area
- Landscape Character Areas
- Regional Seascape Character Areas
- Areas of Outstanding Natural Beauty

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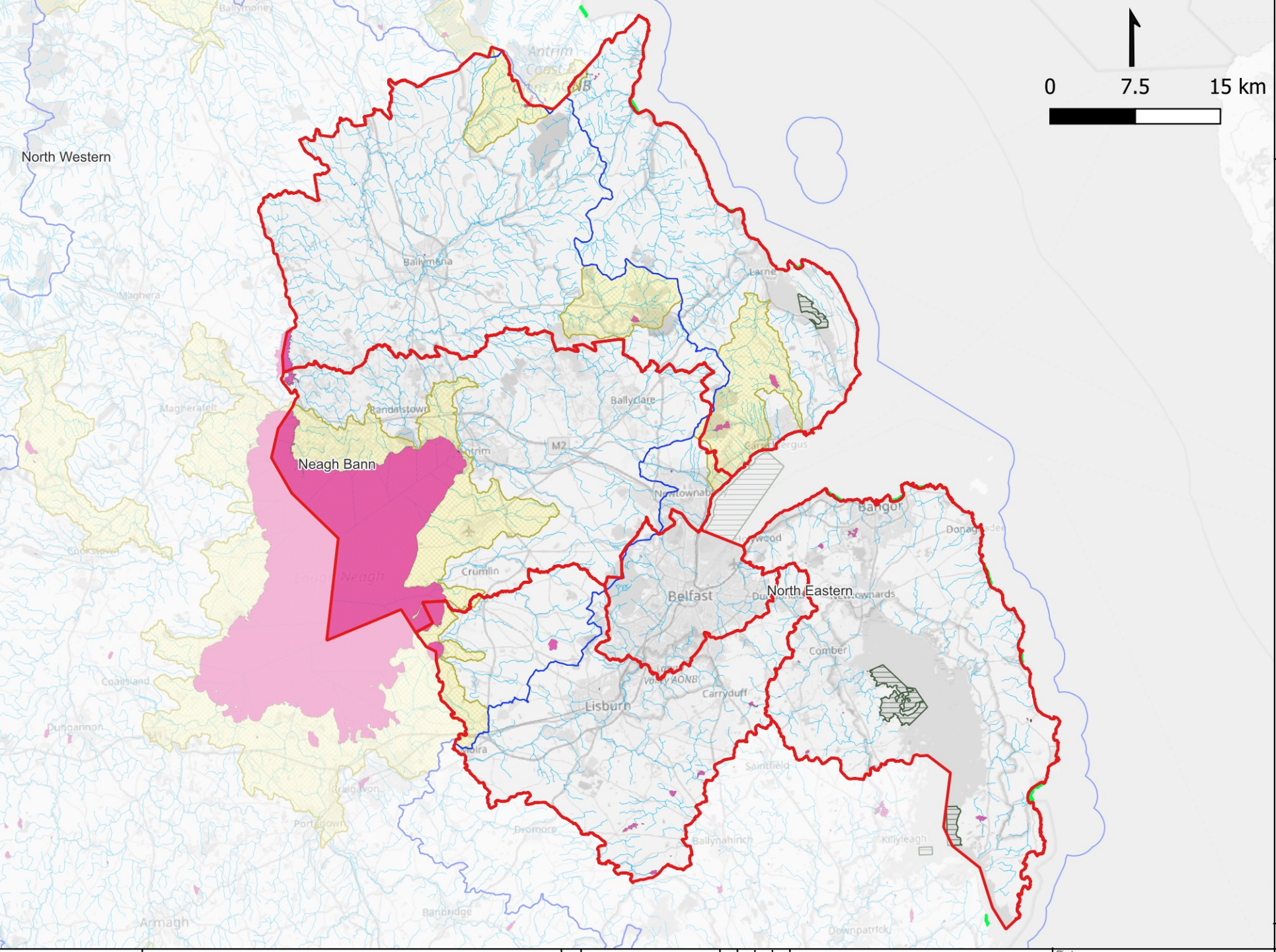
Project: EASTERN TRANSPORT PLAN

Purpose: ISA Report

Title	Des/Drawn	Checked	Authorised
Landscape	JC	CA	PMcE
	Date 15/12/2022	Date 15/12/2022	Date 15/12/2022

Status	Drawing Number	Rev
F	3	1

D.7 Water



GENERAL NOTES

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

2. ONLY WRITTEN DIMENSIONS SHOULD BE USED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS.

KEY PLAN



ETP - Water

- ETP area
- Bathing Waters Protected Areas
- Shellfish Waters Protected Area
- Lakes
- River Basin Districts
- Drinking Water Protected Areas
- Rivers

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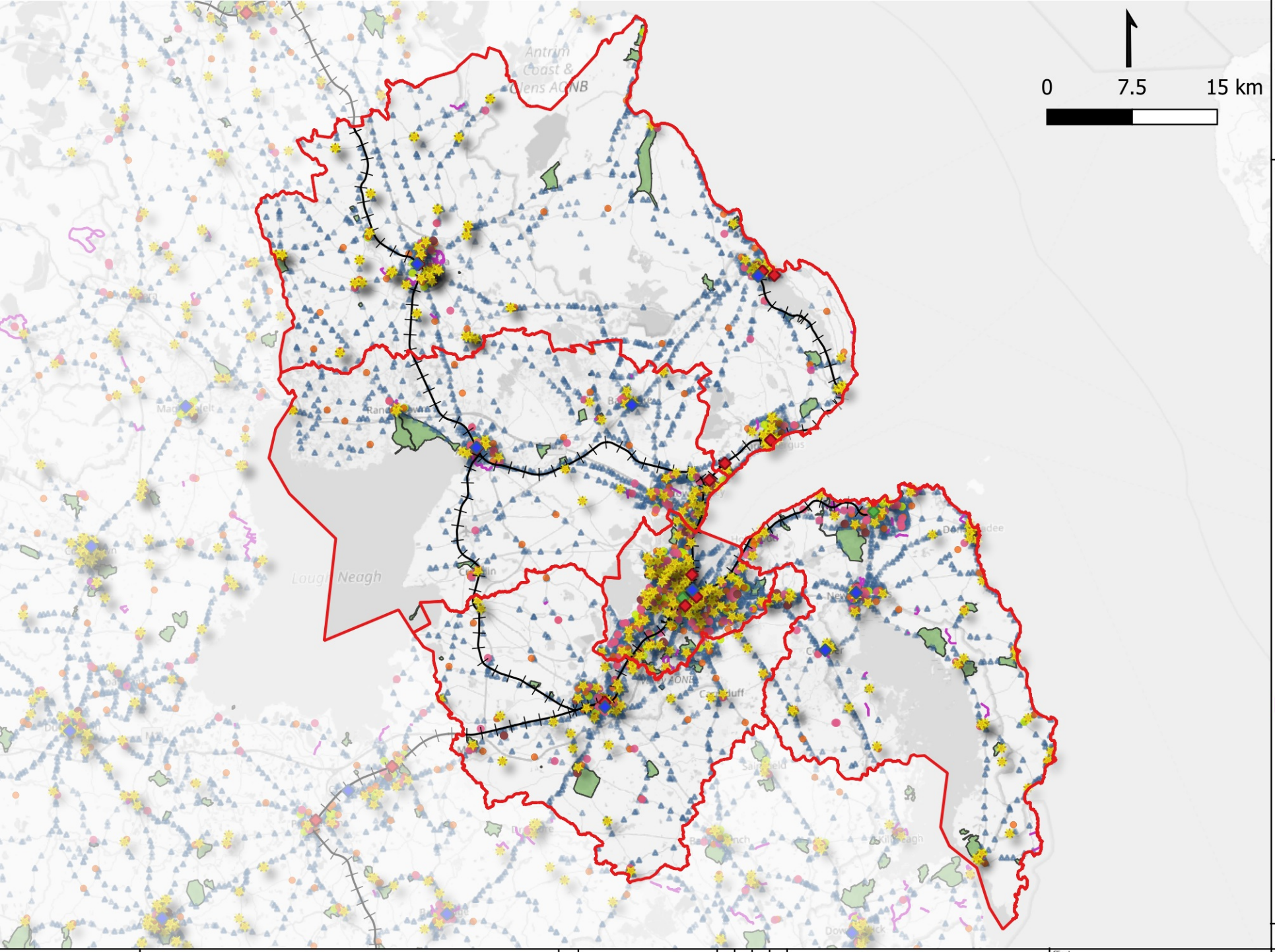
Project: EASTERN TRANSPORT PLAN

Purpose: ISA Report

Title	Des/Drawn	Checked	Authorised
Water	JC	CA	PMcE
	Date 15/12/2022	Date 15/12/2022	Date 15/12/2022

Status	Drawing Number	Rev
F	8	1

D.8 Population and Human Health



GENERAL NOTES

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

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KEY PLAN



ETP - Population and Human Health

- ETP area
- Translink Stations - Bus Only
- Translink Stations - Rail Only
- Translink Stations - Bus & Rail
- Play Parks
- Nursery Schools
- Rail Line
- Public Rights Of Way
- Special Schools
- Pre Schools
- Primary Schools
- Post Primary Schools
- Bus Stops
- Parks and Gardens

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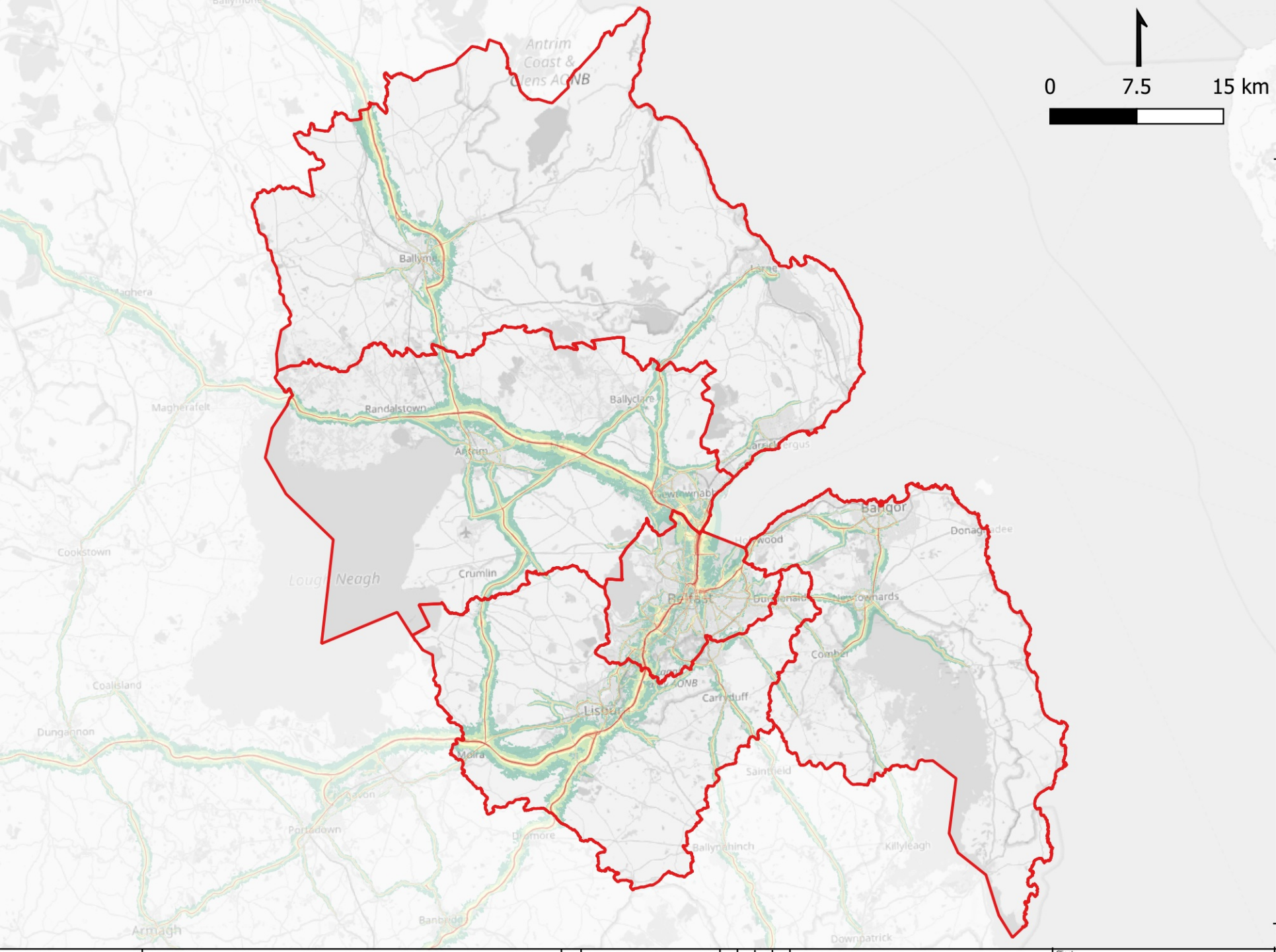
Project: EASTERN TRANSPORT PLAN

Purpose: ISA Report

Title	Des/Drawn	Checked	Authorised
Population and Human Health	JC	CA	PMcE
	Date 15/12/2022	Date 15/12/2022	Date 15/12/2022

Status	Drawing Number	Rev
F	6	1

D.9 Road Noise



GENERAL NOTES

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

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KEY PLAN



ETP - Noise (1/2)

ETP area

Road Noise Lden

- 54
- 59
- 64
- 69
- 74
- 1000

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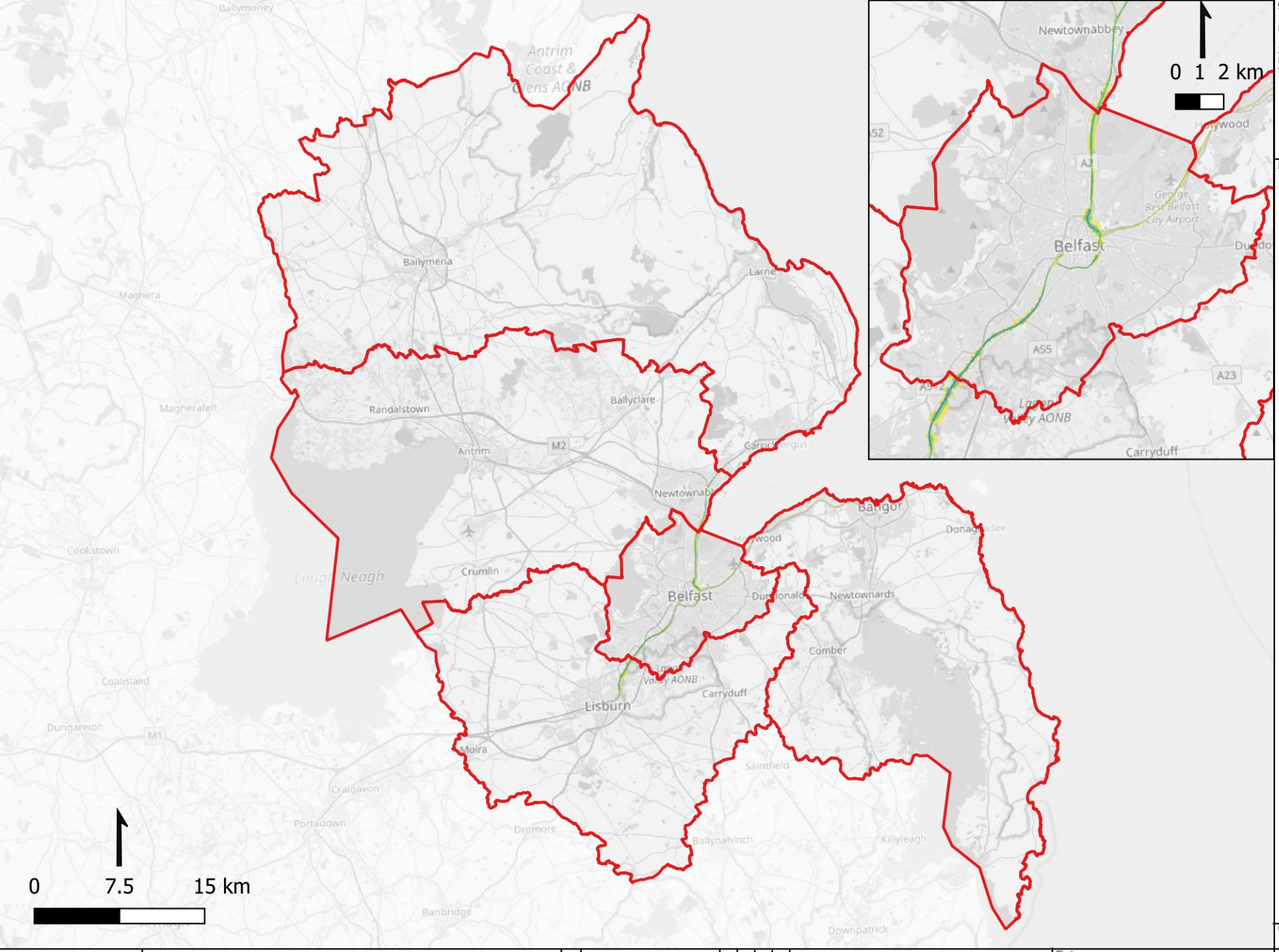
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Project: EASTERN TRANSPORT PLAN

Purpose: ISA Report

Title	Des/Drawn	Checked	Authorised
Noise (1/2)	JC	CA	PMcE
	Date 15/12/2022	Date 15/12/2022	Date 15/12/2022

Status	Drawing Number	Rev
F	4	1



GENERAL NOTES

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

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KEY PLAN

ETP - Noise (2/2)

ETP area

Rail Noise Lden

- 54
- 59
- 64
- 69
- 74
- 1000

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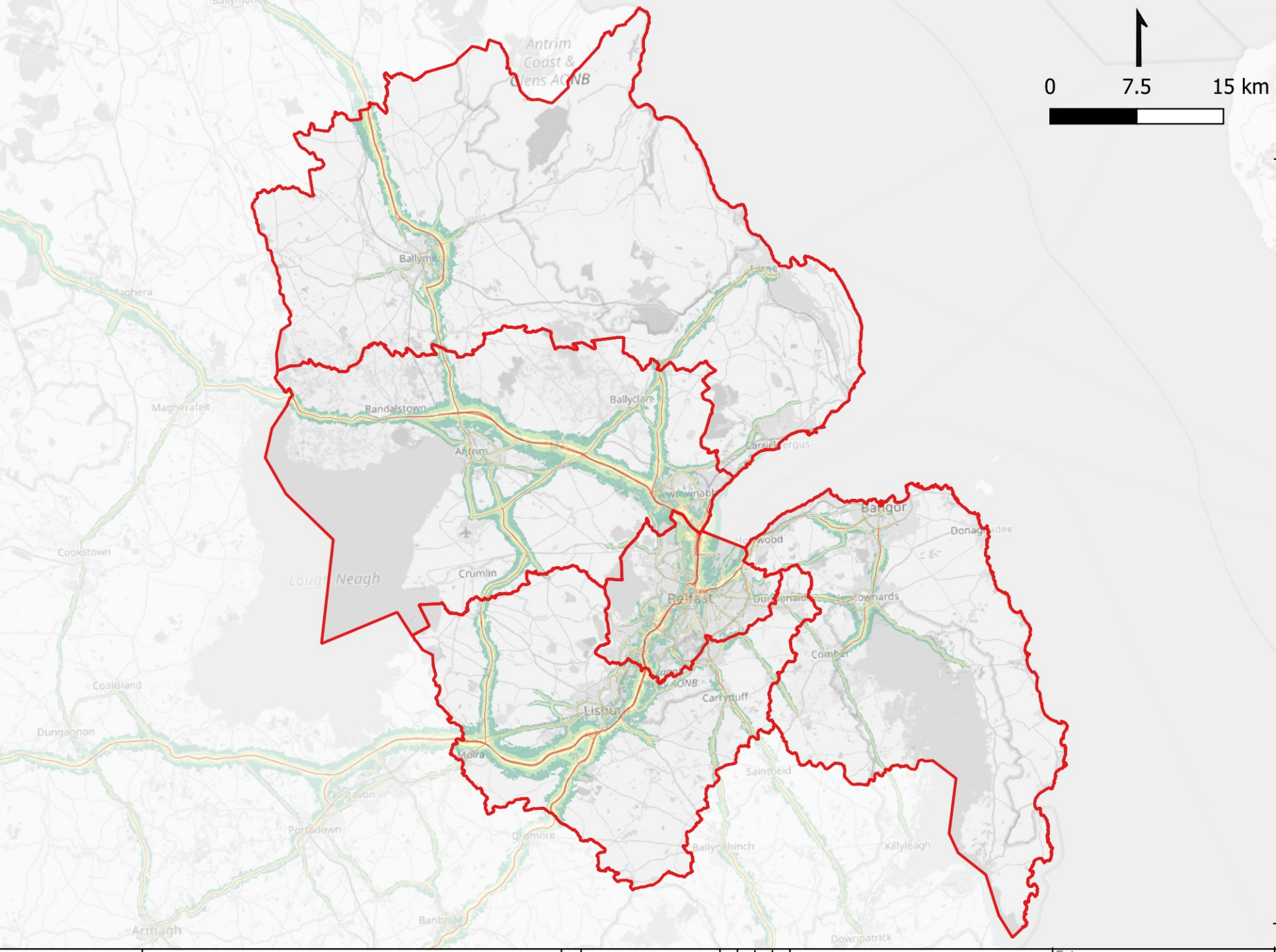
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Purpose: ISA Report

Title	Des/Drawn	Checked	Authorised
Noise (2/2)	JC	CA	PMcE
	Date 15/12/2022	Date 15/12/2022	Date 15/12/2022

Status	Drawing Number	Rev
F	5	1

D.9 Road Noise



GENERAL NOTES

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

2. ONLY WRITTEN DIMENSIONS SHOULD BE USED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS.

KEY PLAN



ETP - Noise (1/2)

ETP area

Road Noise Lden

- 54
- 59
- 64
- 69
- 74
- 1000

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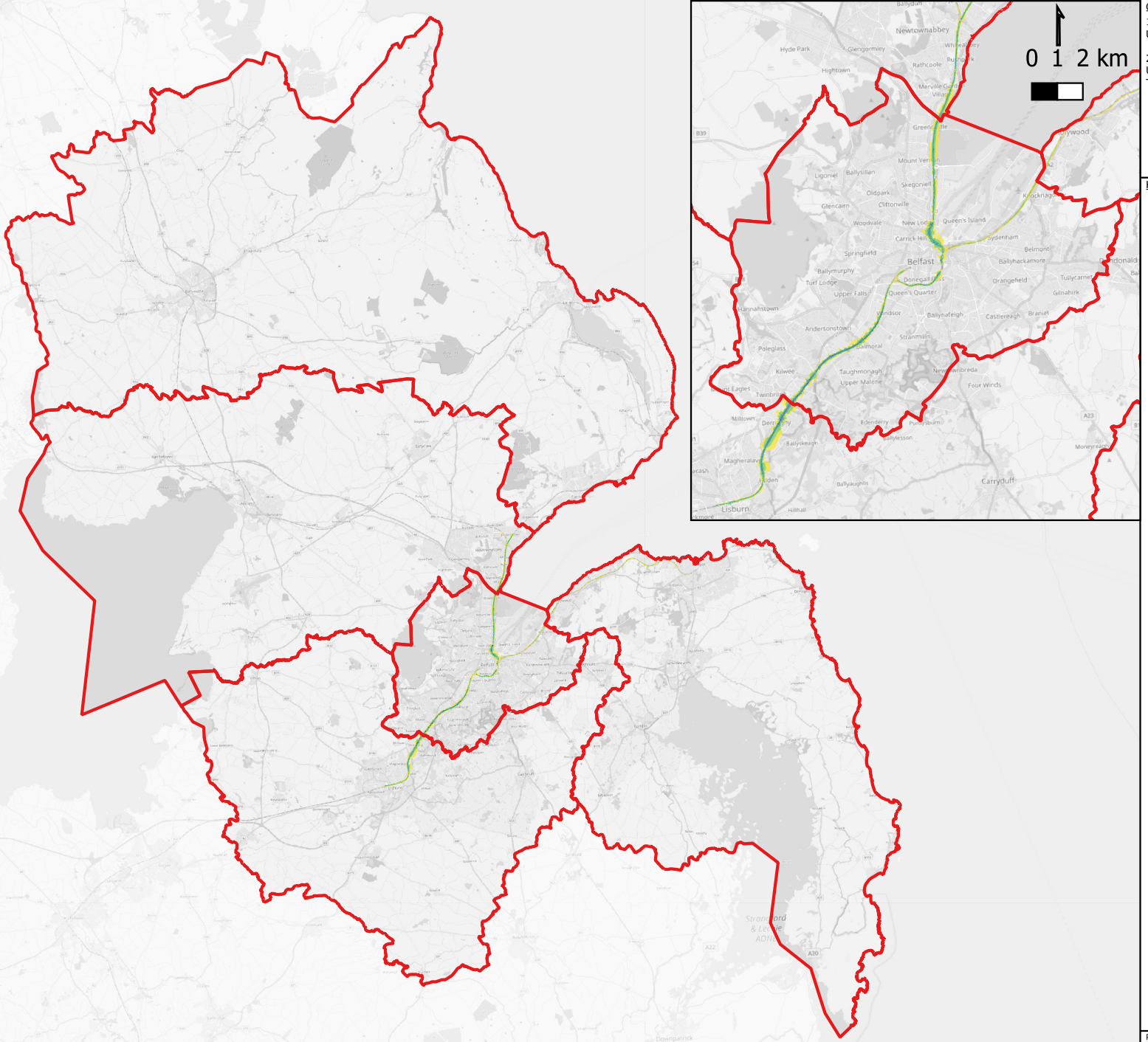
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Purpose: ISA Report

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Status	Drawing Number	Rev
F	4	1

D.10 Rail Noise



GENERAL NOTES

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE

2. ONLY WRITTEN DIMENSIONS SHOULD BE USED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS.

KEY PLAN



ETP - Noise (2/2)

ETP area

Rail Noise Lden

- 54
- 59
- 64
- 69
- 74
- 1000

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Rev	Description	By	Date	Chk'd	Auth
0	For Issue	JC	15/12	CA	PMcE

AtkinsRéalis

Client: Department for Infrastructure

Project: EASTERN TRANSPORT PLAN

Purpose: ISA Report

Title	Des/Drawn	Checked	Authorised
Noise (2/2)	JC	CA	PMcE
	Date 15/12/2022	Date 15/12/2022	Date 15/12/2022

Status	Drawing Number	Rev
F	5	0

Appendix E. Assessment Tables

E.1 SEA Assessments

E.1.1 Introduction of new or extended bus lanes

Intervention Type	Introduction of new or extended bus lanes					
Location	**Belfast City Centre**	**Metropolitan Area**	**LCCC**	**MEABC**	**ANBC**	**ANDBC**
	✓	✓				
Interventions	CC-09 CC-10 CC-11 CC-15 CC-16 CC-25	MA-11 MA-13 MA-14 MA-15 MA-27				
Option Description	Bus lanes will help to facilitate fast and efficient journeys by bus. The proposals in this category include introduction of a mixture of bi-directional and one-way bus lanes that separate buses from general traffic. Bus lanes will be achieved largely as a result of road space reallocation away from general traffic.					
Embedded Mitigation	None identified at this stage					

SEA Topic	SEA Objective	Construction		Operational		Comment	Mitigation	Residual Construction		Residual Operational		
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects	
Air Quality	Protect and improve air quality	**0**	**-**	**++**	**0**	Construction is anticipated to be limited as the interventions involve to roadspace reallocation, but minor works may be required resulting in air and dust emissions. It is anticipated that improvements to the bus network would encourage a modal shift away from car use to public transport, and therefore lead to a reduction in vehicle emissions.	Design ▪ Low emission buses Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on air quality, e.g. ensuring all plant and machinery are well maintained and not emitting excessive fumes Operation ▪ Management of vehicle speed	**0**	**-**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Climate	Reduce carbon dioxide (CO_2) emissions from transport and contribute to meeting net zero carbon targets	**0**	**-**	**++**	**0**	Construction is anticipated to be limited as the interventions involve to roadspace reallocation, but minor works may be required resulting in carbon emissions. It is anticipated that improvements to the bus network would encourage a modal shift away from car use to public transport, and therefore lead to a reduction in vehicle emissions.	Design ▪ Consideration of CO2 emitting potential in the selection of materials ▪ Use of a carbon footprint calculator to assess performance and identify areas for improvement Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on air	**0**	**-**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**

							quality, e.g. ensuring all plant and machinery are well maintained and not emitting excessive fumes ▪ Methods to reduce Carbon Footprint during construction, e.g. use by contractor of carbon calculator ▪ Setting energy targets and monitoring performance Operation ▪ Development and regular monitoring of KPIs ▪ Implement a regular programme of maintenance and improvement considering CO2 emissions					
	Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	**0**	**0**	**0**	**-**	These interventions are for the most part anticipated to be located within urbanised land and therefore there is not likely to be increases in impermeable area (or marginal increases in worst case).	Design ▪ Design to consider flood protection measures, flow routes and flood storage capacity Construction ▪ Consideration of water quality and pollution in Construction Environmental Management Plans (CEMPs) ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring Operation ▪ None identified	**0**	**0**	**0**	**-**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Biodiversity	Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	**0**	**-**	**+**	**0**	While there may be some temporary, adverse impacts on biodiversity during construction (noise and vibration). It is expected that these interventions will for the most part be alternations to existing roads and therefore significant effects or loss of biodiversity are not anticipated. During operation increased use of buses could help reduce congestion (particularly in town centres) and reduce noise and vibration which would have beneficial effects on fauna. Pollutant deposition will also be reduced, having a beneficial effect on biodiversity.	Design ▪ Consideration of the potential for ecological enhancement Construction ▪ Consideration of the timing of construction works in relation to ecological windows and legislative requirements ▪ Consideration of biodiversity and designated sites and habitats in Construction Environmental Management Plans (CEMPs) Operation ▪ None identified	**0**	**-**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
	Protect and enhance sites designated	**0**	**0**	**0**	**0**	No effects expected on designated sites due to the nature of the intervention.	Construction ▪ None identified	**0**	**0**	**0**	**0**	
								Characterisation of effects				

	internationally for nature conservation purposes (HRA objective)					The HRA Stage 1 Screening identified no Likely Significant Effects (LSE) for some bus lane interventions due to the limited development such as realignment of white lines. However, potential LSE were identified in relation to CC-15, CC-16, as there is insufficient detail at this stage to know if it would result in a change of white lines only or other changes, therefore, the precautionary principal has been used. Additionally, potential LSE were identified in relation to MA-13, MA-14 and MA-15, as these policies may lead to improvements to transport infrastructure. The Appropriate Assessment reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.	Operation ▪ None identified	S Local ST Temp High	S Local ST Temp High	S Local LT Perm High	S Local LT Perm High	**Magnitude** **Scale** **Duration** **Permanence** **Certainty**
Geodiversity	Protect, enhance and promote geodiversity	**0**	**0**	**0**	**0**	No effects expected on geodiversity are anticipated due to the nature of the intervention.	Construction ▪ None identified Operation ▪ None identified	**0** **Characterisation of effects** S Local ST Temp High	**0** S Local ST Temp High	**0** S Local LT Perm High	**0** S Local LT Perm High	**Magnitude** **Scale** **Duration** **Permanence** **Certainty**
Historic Environment	Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings	**0**	**0**	**+**	**0**	Cultural heritage assets in close proximity may be adversely impacted during construction, although due to the level of construction anticipated any effects are expected to be negligible. Where the interventions result in reduced use of private cars and congestion there may be positive effects on such assets.	Design ▪ Consideration of character, setting, level of protection and potential need for conservation during planning and design ▪ Consideration of opportunities for enhancement of known features of industrial and cultural heritage significance Construction ▪ Any activities within close proximity which could cause damage or disturbance to these assets, including parking vehicles should be avoided and be managed via a CEMP. Operation ▪ None identified	**0** **Characterisation of effects** S Local ST Temp Med	**0** S Local ST Temp Med	**+** S Local LT Perm Med	**0** S Local LT Perm Med	**Magnitude** **Scale** **Duration** **Permanence** **Certainty**
Landscape and Visual	Protect and enhance the character and quality of landscapes,	**0**	**0**	**+**	**0**	There may be short term, adverse impacts on visual amenity, although due to the level of construction anticipated any effects are expected to be negligible.	Design ▪ Consideration during planning / design to landscaping and screening, with care taken in	**0** **Characterisation of effects** S	**0** S	**+** S	**0** S	**Magnitude**

	townscapes and visual amenity					There may be opportunities to improve townscape during operation.	choice of materials and species used Construction ▪ Use of best practice construction techniques and Construction Environmental Management Plan (CEMP) to ensure that the character and quality of landscapes and townscapes are maintained as far as practicable during construction Operation ▪ None identified	Local ST Temp Med	Local ST Temp Med	Local LT Perm Med	Local LT Perm Med	**Scale** **Duration** **Permanence** **Certainty**
Water	Protect and enhance the water environment	**0**	**-**	**+**	**0**	Pollution incidents which could potentially impact the water environment through run off, are possible during construction. Improvements to bus provision and therefore reducing the number of private cars on the roads may reduce the potential for contamination of the water environment by pollution.	Design ▪ Explore opportunities for use of SuDS Construction ▪ Consideration of water quality and pollution in Construction Environmental Management Plans (CEMPs) ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring Operation ▪ Use of SuDS and / or conventional pollution control techniques such as petrol interceptors	**0** **Characterisation of effects** S Local ST Temp Med	**-** S Local ST Temp Med	**+** S Local LT Perm Med	**0** S Local LT Perm Med	 **Magnitude** **Scale** **Duration** **Permanence** **Certainty**
Soil	Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	**0**	**0**	**0**	**0**	These interventions are unlikely to have an impact on soils or contaminated land.	Construction ▪ None identified Operation ▪ None identified	**0** **Characterisation of effects** S Local ST Temp Med	**0** S Local ST Temp Med	**0** S Local LT Perm Med	**0** S Local LT Perm Med	 **Magnitude** **Scale** **Duration** **Permanence** **Certainty**
Natural Resources	Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level	**0**	**-**	**0**	**0**	Construction involved in the reallocation of roadspace would result in use of materials and waste production, although as it involves alteration to existing carriageways effects are anticipated to be minor.	Design ▪ Sustainable design measures Construction ▪ Consideration of waste hierarchy and use of recycled or re-used materials in a Site Waste Management Plan (SWMP) Operation ▪ None identified	**0** **Characterisation of effects** S Local ST Temp Med	**-** S Local ST Temp Med	**0** S Local LT Perm Med	**0** S Local LT Perm Med	 **Magnitude** **Scale** **Duration** **Permanence** **Certainty**

	of waste generated											
Economic	Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all	+	0	++	0	These interventions may create some employment opportunities during the construction phase. During operation there may be reduced congestion and improved access and connectivity for all.	Design ▪ Consideration of economic growth at route option selection stage Construction ▪ Provide employment opportunities to unskilled / apprentices where possible at construction stage Operation ▪ Implement a plan of maintenance and improvement to ensure that the connectivity to commercial / economic centres is maintained	+	0	++	0	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
	Support the wider coordination of land use, energy planning and transport planning across the Eastern Transport Area and into surrounding regions	0	0	++	0	An expanded bus lane network would require effective land use and transport planning coordination and can result in economic and social benefits (reduced congestion, enhanced quality of life, aid economic growth, facilitating movement of goods and services).	Design ▪ Consideration of transport needs in relation to land use plans and planning requirements Construction ▪ None identified Operation ▪ None identified	0	0	++	0	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Low	Low	Low	Low	**Certainty**
Social	Improve health and well-being for all citizens and reduce inequalities in health *(HIA specific objective)*	0	-	++	0	There may be some adverse air quality emissions during construction which may impact children and those with respiratory conditions. There will be improved health benefits during operation as a result of increased bus usage which would reduce vehicle use and associated GHG, therefore providing health benefits to all citizens.	Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). Operation ▪ None identified	0	-	++	0	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Low	Low	Low	Low	**Certainty**
	Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society *(EqIA specific objective)*	0	0	+	-	Interventions may promote greater equality of opportunity for all citizens, as they would provide increased reliability and better journey times. However, affordability of public transport will remain a key factor in these interventions being accessible to all.	Design ▪ Consider potential for severance from key public services, or opportunities to improve access Construction ▪ None identified Operation ▪ Regular reviews of ticket pricing / consideration of affordability	0	0	+	-	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Low	Low	Low	Low	**Certainty**

E.1.2 Updated bus or BRT2 timetables / routeings

Intervention Type	Updated bus or BRT2 timetables / routeings					
Location	**Belfast City Centre**	**Metropolitan Area**	**LCCC**	**MEABC**	**ANBC**	**ANDBC**
	✓	✓				
Interventions	CC-09 CC-10 CC-11 CC-12 CC-13 CC-14 CC-15 CC-16	MA-11 MA-12 MA-13 MA-14 MA-15 MA-16 MA-17 MA-18 MA-19 MA-20 MA-21				
Option Description	The proposed amendments to bus routes and timetables are less complex and more attractive to both current and prospective bus users, aiming to improve bus frequencies while maintaining overall accessibility.					
Embedded Mitigation	None identified at this stage					

SEA Topic	**SEA Objective**	**Construction**		**Operational**		**Comment**	**Mitigation**	**Residual Construction**		**Residual Operational**		
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects	
Air Quality	Protect and improve air quality	**N/A**	**N/A**	**+**	**0**	Increased service and coverage will promote a modal shift away from car use to bus usage and will lead to a reduction in vehicle emissions.	Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**+**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Med	Med	**Certainty**
Climate	Reduce carbon dioxide (CO_2) emissions from transport and contribute to meeting net zero carbon targets	**N/A**	**N/A**	**+**	**0**	Increased service and coverage will promote a modal shift away from car use to bus usage and will lead to a reduction in vehicle emissions.	Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**+**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Med	Med	**Certainty**
	Increase resilience of the transport network to the effects of a changing climate such	**N/A**	**N/A**	**0**	**0**	There are no effects anticipated in relation to increase climate	Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**0**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**

	as extreme weather events					change resilience and reducing flood risk.		N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	High	High	**Certainty**
Biodiversity	Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	**N/A**	**N/A**	**0**	**+**	Reduced car usage and a shift towards other transport options may reduce noise and vibration levels which would have beneficial effects on fauna.	Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**+**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Low	Low	**Certainty**
	Protect and enhance sites designated internationally for nature conservation purposes (HRA objective)	**N/A**	**N/A**	**0**	**0**	No effects expected on designated sites due to the nature of the intervention. The HRA Stage 1 Screening identified Likely Significant Effects (LSE) in relation to CC-15 and CC-16, as there is insufficient detail at this stage to know if it would result in a change of white lines only or other changes, therefore, the precautionary principal has been used. Additionally, potential LSE were identified in relation to MA-13 to MA-19 and MA-21, as these policies may lead to improvements to transport infrastructure. The Appropriate Assessment reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.	Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**0**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	High	High	**Certainty**
Geodiversity	Protect, enhance and promote geodiversity	**N/A**	**N/A**	**0**	**0**	No effects expected on geodiversity due to the nature of the interventions.	Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**0**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**

								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	High	High	**Certainty**
Historic Environment	Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings	**N/A**	**N/A**	**0**	**0**	No effects expected on cultural heritage due to the nature of these interventions.	Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**0**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	High	High	**Certainty**
Landscape and Visual	Protect and enhance the character and quality of landscapes, townscapes and visual amenity	**N/A**	**N/A**	**0**	**0**	No effects expected on landscape, townscape or visual amenity due to the nature of these interventions.	Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**0**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	High	High	**Certainty**
Water	Protect and enhance the water environment	**N/A**	**N/A**	**0**	**0**	This type of intervention is unlikely to give rise to impacts on the water environment.	Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**0**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	High	High	**Certainty**
Soil	Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	**N/A**	**N/A**	**0**	**0**	These interventions are unlikely to have an impact on soils or contaminated land.	Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**0**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	High	High	**Certainty**
Natural Resources	Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated	**N/A**	**N/A**	**0**	**0**	This type of intervention is unlikely to impact on resources and waste.	Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**0**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**

								N/A	N/A	High	High	**Certainty**
Economic	Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all	**N/A**	**N/A**	**0**	**+**	Improving service coverage and availability of buses would help to improve connectivity and accessibility to jobs and skills	Design ▪ Consideration of economic growth at route option selection stage Construction ▪ N/A Operation ▪ Implement a plan of maintenance and improvement to ensure that the connectivity to commercial / economic centres is maintained	**N/A**	**N/A**	**0**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Med	Med	**Certainty**
	Support the wider coordination of land use, energy planning and transport planning across the Eastern Transport Area and into surrounding regions	**N/A**	**N/A**	**0**	**+**	Service expansion through updated timetables would require effective land use, energy and transport planning coordination and can result in economic and social benefits (reduced congestion, enhanced quality of life, aid economic growth, facilitating movement of goods and services).	Design ▪ Consideration of transport needs in relation to land use plans and planning requirements Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**+**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Med	Med	**Certainty**
Social	Improve health and well-being for all citizens and reduce inequalities in health *(HIA specific objective)*	**N/A**	**N/A**	**0**	**0**	No effects expected on health and well-being are anticipated.	Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**0**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Low	Low	**Certainty**
	Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society *(EqIA specific objective)*	**N/A**	**N/A**	**+**	**-**	Service expansion will benefit disadvantaged groups in society by providing accessibility and greater connectivity to employment opportunities and services. Certain groups may be unable to easily access this intervention (unemployed, disabled, pregnant women, elderly)	Construction ▪ N/A Operation ▪ Regular reviews of ticket pricing / consideration of affordability	**N/A**	**N/A**	**+**	**-**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Low	Low	**Certainty**

E.1.3 Introduction of new BRT2 services

Intervention Type	Introduction of new BRT services					
Location	**Belfast City Centre**	**Metropolitan Area**	**LCCC**	**MEABC**	**ANBC**	**ANDBC**
	✓	✓				
Interventions	CC-14 CC-15 CC-16	MA-11 MA-14 MA-15 MA-21				
Option Description	The introduction of new BRT routes will result in improved service frequencies and reliable journey times, supported by high levels of bus priority, high quality halts including level boarding and off-bus ticketing, delivered using tram-style bus vehicles.					
Embedded Mitigation	None identified at this stage					

SEA Topic	SEA Objective	Construction		Operational		Comment	Mitigation	Residual Construction		Residual Operational		
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects	
Air Quality	Protect and improve air quality	**0**	**-**	**++**	**0**	Construction is anticipated to be limited but minor works may be required for halt improvements, resulting in air and dust emissions. It is anticipated that improved BRT service frequency and high-quality halts would encourage a modal shift away from car use to public transport and therefore lead to a reduction in vehicle emissions.	Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on air quality, e.g. ensuring all plant and machinery are well maintained and not emitting excessive fumes Operation ▪ None identified	**0**	**-**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Climate	Reduce carbon dioxide (CO_2) emissions from transport and contribute to meeting net zero carbon targets	**0**	**-**	**++**	**0**	Construction is anticipated to be limited but minor works may be required for halt improvements, resulting in air and dust emissions. It is anticipated that improved BRT service frequency and high-quality halts would encourage a modal shift away from car use to public transport and therefore lead to a reduction in vehicle emissions.	Design ▪ Consideration of CO2 emitting potential in the selection of materials Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on air quality, e.g. ensuring all plant and machinery are well maintained and not emitting excessive fumes Operation ▪ Implement a regular programme of maintenance and improvement considering CO2 emissions	**0**	**-**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
	Increase resilience of the transport network to the effects of a changing climate	**0**	**0**	**0**	**0**	There are no effects anticipated in relation to increase climate change	Construction None identified Operation ▪ None identified	**0**	**0**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**

	such as extreme weather events					resilience and reducing flood risk.		Local	Local	Local	Local	**Scale**
								LT	LT	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								High	High	High	High	**Certainty**
Biodiversity	Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	**0**	**0**	**+**	**0**	It is expected that these interventions will be alternations to existing roads and therefore effects or loss of biodiversity are not anticipated. Reduced car usage and a shift towards other transport options may reduce noise and vibration levels which would have beneficial effects on fauna.	Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								LT	LT	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Low	Low	Low	Low	**Certainty**
	Protect and enhance sites designated internationally for nature conservation purposes (HRA objective)	**0**	**0**	**0**	**0**	No effects expected on designated sites due to the nature of the intervention. In relation to the HRA Stage 1 Screening identified potential LSE in relation to CC-15 and CC-16 as there is insufficient detail at this stage to know if it would result in a change of white lines only or other changes, therefore, the precautionary principal has been used. Additionally, potential LSE were identified for MA-14, MA-15 and MA-21 as they may lead to improvements to transport infrastructure. The Appropriate Assessment reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.	Construction None identified Operation ▪ None identified	**0**	**0**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								LT	LT	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								High	High	High	High	**Certainty**
Geodiversity	Protect, enhance and promote geodiversity	**0**	**0**	**0**	**0**	No effects expected on geodiversity due to the nature of the interventions.	Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								LT	LT	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								High	High	High	High	**Certainty**
Historic Environment	Conserve and enhance heritage	**0**	**0**	**+**	**0**	Reducing vehicles in town centres may help to	Construction ▪ None identified	**0**	**0**	**+**	**0**	

	assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings					conserve cultural heritage assets during operation.	Operation ▪ None identified	**Characterisation of effects**				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								LT	LT	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								High	High	High	High	**Certainty**
Landscape and Visual	Protect and enhance the character and quality of landscapes, townscapes and visual amenity	**0**	**-**	**0**	**-**	There may be minor adverse effects on landscape, townscape or visual amenity due to the introduction of new halts and associated infrastructure.	Construction ▪ None identified Operation ▪ None identified	**0**	**-**	**0**	**-**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								LT	LT	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								High	High	High	High	**Certainty**
Water	Protect and enhance the water environment	**0**	**-**	**+**	**0**	Pollution incidents which could potentially impact the water environment through run off, are possible during construction, although effects are expected to be minor. BRT upgrades are anticipated to reduce the number of private cars on the roads which may reduce the potential for contamination of the water environment by pollution.	Construction ▪ Consideration of water quality and pollution in Construction Environmental Management Plans (CEMPs) ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring Operation ▪ None identified	**0**	**-**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Soil	Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	**0**	**0**	**0**	**0**	These interventions are unlikely to have an impact on soils or contaminated land.	Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								LT	LT	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								High	High	High	High	**Certainty**
Natural Resources	Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated	**0**	**-**	**0**	**0**	Construction involved in halt improvements would result in use of materials and waste production, although as it involves halt upgrades on existing roads in urban areas effects are anticipated to be minor.	Design ▪ Sustainable design measures Construction ▪ Consideration of waste hierarchy and use of recycled or re-used materials in a Site Waste Management Plan (SWMP) Operation ▪ None identified	**0**	**-**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								LT	LT	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**

Economic	Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all	**0**	**0**	**+**	**0**	Improving service frequency of BRT would help to improve connectivity and accessibility to jobs and skills	Construction ▪ None identified Operation ▪ Implement a plan of maintenance and improvement to ensure that the connectivity to commercial / economic centres is maintained	**0**	**0**	**+**	**0**		
								Characterisation of effects					
								S	S	S	S	**Magnitude**	
								Local	Local	Local	Local	**Scale**	
								LT	LT	LT	LT	**Duration**	
								Temp	Temp	Perm	Perm	**Permanence**	
								Med	Med	Med	Med	**Certainty**	
	Support the wider coordination of land use, energy planning and transport planning across the Eastern Transport Area and into surrounding regions	**0**	**0**	**+**	**0**	BRT service expansion through increased service frequencies and high quality halts would require effective land use, energy and transport planning coordination and can result in economic and social benefits (reduced congestion, enhanced quality of life, aid economic growth, facilitating movement of goods and services).	Design ▪ Consideration of transport needs in relation to land use plans and planning requirements Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**+**	**0**		
								Characterisation of effects					
								S	S	S	S	**Magnitude**	
								Local	Local	Local	Local	**Scale**	
								LT	LT	LT	LT	**Duration**	
								Temp	Temp	Perm	Perm	**Permanence**	
								Med	Med	Med	Med	**Certainty**	
Social	Improve health and well-being for all citizens and reduce inequalities in health *(HIA specific objective)*	**0**	**-**	**+**	**0**	There may be minor adverse air quality emissions during construction which may impact children and those with respiratory conditions. There may be improved health benefits during operation as a result of increased BRT usage which would reduce vehicle use and associated GHG emissions, therefore providing health benefits to all citizens.	Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). Operation ▪ None identified	**0**	**-**	**+**	**0**		
								Characterisation of effects					
								S	S	S	S	**Magnitude**	
								Local	Local	Local	Local	**Scale**	
								ST	ST	LT	LT	**Duration**	
								Temp	Temp	Perm	Perm	**Permanence**	
								Low	Low	Low	Low	**Certainty**	
	Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society *(EqIA specific objective)*	**0**	**0**	**+**	**-**	BRT upgrades including improved service frequencies and high-quality halts will benefit disadvantaged groups in society by providing accessibility and greater connectivity to employment opportunities and services. Certain groups may be unable to easily access this intervention (unemployed, those with mobility issues, elderly)	Construction ▪ None identified Operation ▪ Regular reviews of ticket pricing / consideration of affordability	**0**	**0**	**+**	**-**		
								Characterisation of effects					
								S	S	S	S	**Magnitude**	
								Local	Local	Local	Local	**Scale**	
								ST	ST	LT	LT	**Duration**	
								Temp	Temp	Perm	Perm	**Permanence**	
								Low	Low	Low	Low	**Certainty**	

E.1.4 Increased priority for walking and wheeling

Intervention Type	Increased priority for walking and wheeling					
Location	**Belfast City Centre**	**Metropolitan Area**	**LCCC**	**MEABC**	**ANBC**	**ANDBC**
	✓	✓				
Interventions	CC-02 CC-03 CC-05 CC-09 CC-10 CC-18 CC-19 CC-20 CC-25	MA-02 MA-03 MA-04 MA-05 MA-09				
Option Description	Increasing priority for walking and wheeling through introduction of expanded pedestrianised (or largely pedestrianised) areas will increase the level of separation for these modes from motorised traffic, supporting safety and unlock opportunities for enhanced public realm. The design of these routes will align with best practice to either enable safe sharing of space between pedestrians and cyclists or to deliver suitable separation where it is needed.					
Embedded Mitigation	None identified at this stage.					

SEA Topic	**SEA Objective**	**Construction**		**Operational**		**Comment**	**Mitigation**	**Residual Construction**		**Residual Operational**	
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects
Air Quality	Protect and improve air quality	**0**	**--**	**++**	**0**	There may be some adverse air quality emissions during construction. If road capacity is reduced without sufficient alternative transport options, congestion may increase temporarily, causing higher localised emissions until traffic patterns adjust. However, it is anticipated that roadspace reallocation would encourage a modal shift away from vehicle use to more sustainable transport options, like walking, and therefore lead to a reduction in vehicle emissions.	Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on air quality, e.g. ensuring all plant and machinery are well maintained and not emitting excessive fumes Operation ▪ None identified	**0**	**-**	**++**	**0**

Characterisation of effects				
S	S	S	S	**Magnitude**
Local	Local	Local	Local	**Scale**
ST	ST	LT	LT	**Duration**
Temp	Temp	Perm	Perm	**Permanence**
High	High	High	High	**Certainty**

Climate	Reduce carbon dioxide (CO_2) emissions from transport and contribute to meeting net zero carbon targets	**0**	**--**	**++**	**0**	There may be some adverse effects in terms of carbon emissions during construction. It is anticipated that roadspace reallocation would encourage a modal shift away from vehicle use to more sustainable transport options, like walking, and therefore lead to a reduction in vehicle emissions.	Design ▪ Consideration of CO2 emitting potential in the selection of materials Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on air quality, e.g. ensuring all plant and machinery are well maintained and not emitting excessive fumes Operation ▪ Implement a regular programme of maintenance and improvement considering CO2 emissions	**0**	**-**	**++**	**0**	
								Characterisation of effects					
								S	S	S	S	**Magnitude**	
								Local	Local	Local	Local	**Scale**	
								ST	ST	LT	LT	**Duration**	
								Temp	Temp	Perm	Perm	**Permanence**	
								High	High	High	High	**Certainty**	
	Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	0	0	0	-	These interventions are for the most part anticipated to be located within urbanised land and therefore there is not likely to be increases in impermeable area (or marginal increases in worst case).	Construction ▪ Consideration of water quality and pollution in Construction Environmental Management Plans (CEMPs) ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring Operation ▪ None identified	**0**	**0**	**0**	**-**		
								Characterisation of effects					
								S	S	S	S	**Magnitude**	
								Local	Local	Local	Local	**Scale**	
								ST	ST	LT	LT	**Duration**	
								Temp	Temp	Perm	Perm	**Permanence**	
								Med	Med	Med	Med	**Certainty**	
Biodiversity	Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	**0**	**-**	**+**	**0**	While there may be some temporary, adverse impacts on biodiversity during construction (noise and vibration). It is expected that these interventions will for the most part be alterations to existing roads and therefore significant effects or loss of biodiversity are not anticipated. During operation increased walking and wheeling and a reduction in vehicle use could help reduce congestion (particularly in town centres) and reduce noise and vibration which would have beneficial effects on fauna. Pollutant	Construction ▪ Consideration of the timing of construction works in relation to ecological windows and legislative requirements ▪ Consideration of biodiversity and designated sites and habitats in Construction Environmental Management Plans (CEMPs) Operation ▪ None identified	**0**	**-**	**+**	**0**	
								Characterisation of effects					
								S	S	S	S	**Magnitude**	
								Local	Local	Local	Local	**Scale**	
								ST	ST	LT	LT	**Duration**	
								Temp	Temp	Perm	Perm	**Permanence**	
								High	High	High	High	**Certainty**	

						deposition will also be reduced, having a beneficial effect on biodiversity.					
	Protect and enhance sites designated internationally for nature conservation purposes (HRA objective)	**0**	**0**	**0**	**0**	No effects expected on designated sites due to the nature of the intervention. The HRA Stage 1 Screening identified Likely Significant Effects (LSE) in relation to CC-02, CC-03, CC-05, CC-18, CC-19, CC-20 and CC-25, as well as MA-02, MA-03, MA-04, MA-05 and MA-09, as these policies may lead to improvements to transport infrastructure. The HRA Appropriate Assessment reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.	Construction ▪ None identified Operation ▪ None identified	**0** **Characterisation of effects** S / Local / ST / Temp / High S / Local / ST / Temp / High S / Local / LT / Perm / High S / Local / LT / Perm / High	**0**	**0**	**0**	**Magnitude** **Scale** **Duration** **Permanence** **Certainty**
Geodiversity	Protect, enhance and promote geodiversity	**0**	**0**	**0**	**0**	No effects expected on geodiversity are anticipated due to the nature of the intervention.	Construction ▪ None identified Operation ▪ None identified	**0** **Characterisation of effects** S / Local / ST / Temp / High S / Local / ST / Temp / High S / Local / LT / Perm / High S / Local / LT / Perm / High	**0**	**0**	**0**	**Magnitude** **Scale** **Duration** **Permanence** **Certainty**
Historic Environment	Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings	**0**	**-**	**+**	**0**	Cultural heritage assets in close proximity may be adversely impacted during construction, although effects are not anticipated to be significant. Reducing vehicles in town centres will help to conserve cultural heritage assets during operation.	Construction ▪ Any activities within close proximity which could cause damage or disturbance to these assets, including parking vehicles should be avoided and be managed via a CEMP. ▪ Precautions for unexpected heritage discovery during construction ▪ Potential need for archaeological watching brief during construction, particularly in areas not previously developed	**0** **Characterisation of effects** S / Local / ST / Temp / Med S / Local / ST / Temp / Med S / Local / LT / Perm / Med S / Local / LT / Perm / Med	**-**	**+**	**0**	**Magnitude** **Scale** **Duration** **Permanence** **Certainty**

							▪ Consideration of unexpected heritage discovery in Construction Environmental Management Plans (CEMPs) Operation ▪ None identified					
Landscape and Visual	Protect and enhance the character and quality of landscapes, townscapes and visual amenity	**0**	**-**	**+**	**0**	There may be short term, slight adverse impacts on visual amenity during construction. There may be opportunities to improve townscape during operation.	Design ▪ Consideration during planning / design to landscaping and screening, with care taken in choice of materials and species used Construction ▪ Use of best practice construction techniques and Construction Environmental Management Plan (CEMP) to ensure that the character and quality of landscapes and townscapes are maintained as far as practicable during construction Operation ▪ None identified	**0**	**-**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Water	Protect and enhance the water environment	**0**	**-**	**+**	**0**	Pollution incidents which could potentially impact the water environment through run off, are possible during construction. Reducing the number of private cars on the roads may reduce the potential for contamination of the water environment by pollution.	Design ▪ None identified Construction ▪ Consideration of water quality and pollution in Construction Environmental Management Plans (CEMPs) ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring Operation ▪ None identified	**0**	**-**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Soil	Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	**0**	**0**	**0**	**0**	These interventions are unlikely to have an impact on soils or contaminated land.	Construction ▪ Consideration of soil quality and pollution in Construction Environmental Management Plans (CEMPs) ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring Operation ▪ None identified	**0**	**0**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								High	High	High	High	**Certainty**
Natural Resources	Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary	**0**	**-**	**0**	**0**	Construction involved in the reallocation of roadspace would result in use of materials and waste production,	Design ▪ Sustainable design measures Construction	**0**	**-**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**

	and recycled materials, reduce the level of waste generated					although as it involves alteration to existing carriageways effects are anticipated to be minor.	▪ Consideration of waste hierarchy and use of recycled or re-used materials in a Site Waste Management Plan (SWMP) Operation ▪ None identified	Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Economic	Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all	**+**	**0**	**++**	**0**	These interventions may create some employment opportunities during the construction phase. During operation there may be reduced congestion and improved access and connectivity for all.	Design ▪ Explore potential commercial tourist opportunities Construction ▪ Provide employment opportunities to unskilled / apprentices where possible at construction stage Operation ▪ None identified	**+**	**0**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
	Support the wider coordination of land use, energy planning and transport planning across the Eastern Transport Area and into surrounding regions	**0**	**0**	**++**	**0**	An expanded pedestrian network would require effective land use and transport planning coordination and can result in economic and social benefits (reduced congestion, enhanced quality of life, aid economic growth, facilitating movement of goods and services).	Design ▪ Consideration of transport needs in relation to land use plans and planning requirements Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Low	Low	Low	Low	**Certainty**
Social	Improve health and well-being for all citizens and reduce inequalities in health *(HIA specific objective)*	**0**	**-**	**++**	**-**	There may be some adverse air quality emissions during construction which may impact children and those with respiratory conditions. There will be improved health benefits during operation as a result of increased physical activity. Increased uptake of walking would reduce vehicle use and associated GHG emissions, therefore providing health benefits to all citizens. Certain groups may be unable to easily access this intervention (those with mobility issues, those who are	Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). Operation ▪ None identified	**0**	**-**	**++**	**-**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Low	Low	Low	Low	**Certainty**

						pregnant, elderly people).									
	Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society *(EqIA specific objective)*	**0**	**0**	**+**	**-**	Interventions may benefit disadvantaged groups in society through greater access to affordable / free transport routes. Certain social groups may be unable to fully utilise areas (those with mobility issues, those who are pregnant, elderly people).	Design ▪ Consider opportunities to improve access Construction ▪ None identified Operation ▪ Implement a plan of maintenance and improvement to ensure that pedestrianised areas, footpaths and cycle lanes remain an attractive option	**0**	**0**	**+**	**-**	**Characterisation of effects**			
								S	S	S	S				**Magnitude**
								Local	Local	Local	Local				**Scale**
								ST	ST	LT	LT				**Duration**
								Temp	Temp	Perm	Perm				**Permanence**
								Low	Low	Low	Low				**Certainty**

E.1.5 Upgrades to footpaths and crossings

Intervention Type	Upgrades to footpaths and crossings					
Location	**Belfast City Centre**	**Metropolitan Area**	**LCCC**	**MEABC**	**ANBC**	**ANDBC**
	✓	✓				
Interventions	CC-02 CC-03 CC-04 CC-05 CC-06 CC-07 CC-08 CC-09 CC-10	MA-02 MA-03 MA-04 MA-05 MA-06 MA-07				
Option Description	These interventions will facilitate easy and safe walking and wheeling journeys through enhancements to existing footways and provision of new crossing facilities at appropriate locations. Treatments to be considered within this area include footway widening, raising and dropping kerbs and improved wayfinding, priority at signals and lighting to ensure safe and easy access for all users.					
Embedded Mitigation	None identified at this stage.					

SEA Topic	**SEA Objective**	**Construction** Positive Effects	**Construction** Negative Effects	**Operational** Positive Effects	**Operational** Negative Effects	**Comment**	**Mitigation**	**Residual Construction** Positive Effects	**Residual Construction** Negative Effects	**Residual Operational** Positive Effects	**Residual Operational** Negative Effects	
Air Quality	Protect and improve air quality	**0**	**--**	**++**	**0**	There may be some adverse air quality emissions during construction. It is anticipated that improvements for walking and wheeling would encourage a modal shift away from vehicle use to more sustainable transport options, and therefore lead to a reduction in vehicle emissions.	Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on air quality, e.g. ensuring all plant and machinery are well maintained and not emitting excessive fumes Operation ▪ None identified	**0**	**-**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								High	High	High	High	**Certainty**
Climate	Reduce carbon dioxide (CO_2) emissions from transport and contribute to meeting net zero carbon targets	**0**	**--**	**++**	**0**	There may be some adverse effects in terms of carbon emissions during construction. It is anticipated that improvements for walking and wheeling would encourage a modal shift away from vehicle use to more sustainable transport options, and therefore lead to a reduction in vehicle emissions.	Design ▪ Consideration of CO2 emitting potential in the selection of materials Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on air quality, e.g. ensuring all plant and machinery are well maintained and not emitting excessive fumes Operation	**0**	**-**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								High	High	High	High	**Certainty**

							▪ Implement a regular programme of maintenance and improvement considering CO2 emissions					
	Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	0	0	0	-	These interventions are for the most part anticipated to be located within urbanised land and therefore there is not likely to be increases in impermeable area (or marginal increases in worst case).	Construction ▪ Consideration of water quality and pollution in Construction Environmental Management Plans (CEMPs) ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring Operation ▪ None identified	**0**	**0**	**0**	**-**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Biodiversity	Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	**0**	**-**	**+**	**0**	While there may be some temporary, adverse impacts on biodiversity during construction (noise and vibration). It is expected that these interventions will for the most part be alterations to existing roads and footpaths, therefore significant effects or loss of biodiversity are not anticipated. During operation increased walking and wheeling and a reduction in vehicle use could help reduce congestion (particularly in town centres) and reduce noise and vibration which would have beneficial effects on fauna. Pollutant deposition will also be reduced, having a beneficial effect on biodiversity.	Construction ▪ Consideration of the timing of construction works in relation to ecological windows and legislative requirements ▪ Consideration of biodiversity and designated sites and habitats in Construction Environmental Management Plans (CEMPs) Operation ▪ None identified	**0**	**-**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								High	High	High	High	**Certainty**
	Protect and enhance sites designated internationally for nature conservation purposes (HRA objective)	**0**	**0**	**0**	**0**	No effects expected on designated sites due to the nature of the intervention. The HRA Stage 1 Screening identified Likely Significant Effects (LSE) in relation to CC-02, CC-03, CC-05, as well as MA-02, MA-03, MA-04, MA-05 and MA-06 as these policies may lead to improvements to transport infrastructure. The HRA Appropriate Assessment reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.	Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								High	High	High	High	**Certainty**

Geodiversity	Protect, enhance and promote geodiversity	**0**	**0**	**0**	**0**	No effects expected on geodiversity are anticipated due to the nature of the intervention.	Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								High	High	High	High	**Certainty**
Historic Environment	Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings	**0**	**-**	**+**	**0**	Cultural heritage assets in close proximity may be adversely impacted during construction, although effects are not anticipated to be significant. Reducing vehicles in town centres will help to conserve cultural heritage assets during operation.	Construction ▪ Any activities within close proximity which could cause damage or disturbance to these assets, including parking vehicles should be avoided and be managed via a CEMP. ▪ Precautions for unexpected heritage discovery during construction ▪ Potential need for archaeological watching brief during construction, particularly in areas not previously developed ▪ Consideration of unexpected heritage discovery in Construction Environmental Management Plans (CEMPs) Operation ▪ None identified	**0**	**-**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Landscape and Visual	Protect and enhance the character and quality of landscapes, townscapes and visual amenity	**0**	**-**	**+**	**0**	There may be short term, slight adverse impacts on visual amenity during construction. There may be opportunities to improve townscape during operation.	Design ▪ Consideration during planning / design to landscaping and screening, with care taken in choice of materials and species used Construction ▪ Use of best practice construction techniques and Construction Environmental Management Plan (CEMP) to ensure that the character and quality of landscapes and townscapes are maintained as far as practicable during construction Operation ▪ None identified	**0**	**-**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Water	Protect and enhance the water environment	**0**	**-**	**+**	**0**	Pollution incidents which could potentially impact the water environment through run off, are possible during construction. Reducing the number of private cars on the roads may reduce the potential for contamination of the water environment by pollution.	Design ▪ None identified Construction ▪ Consideration of water quality and pollution in Construction Environmental Management Plans (CEMPs) ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring	**0**	**-**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**

							Operation ▪ None identified	Med	Med	Med	Med	**Certainty**
Soil	Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	**0**	**0**	**0**	**0**	These interventions are unlikely to have an impact on soils or contaminated land.	Construction ▪ Consideration of soil quality and pollution in Construction Environmental Management Plans (CEMPs) ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring Operation ▪ None identified	**0**	**0**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								High	High	High	High	**Certainty**
Natural Resources	Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated	**0**	**-**	**0**	**0**	Construction involved in the widening of footways and provision of lighting would result in use of materials and waste production, although, as it involves alteration to existing carriageways and footways, effects are anticipated to be minor.	Design ▪ Sustainable design measures Construction ▪ Consideration of waste hierarchy and use of recycled or re-used materials in a Site Waste Management Plan (SWMP) Operation ▪ None identified	**0**	**-**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Economic	Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all	**+**	**0**	**++**	**0**	These interventions may create some employment opportunities during the construction phase. During operation there may be reduced congestion and improved access and connectivity for all.	Design ▪ Explore potential commercial tourist opportunities Construction ▪ Provide employment opportunities to unskilled / apprentices where possible at construction stage Operation ▪ None identified	**+**	**0**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
	Support the wider coordination of land use, energy planning and transport planning across the Eastern Transport Area and into surrounding regions	**0**	**0**	**++**	**0**	An expanded walking and wheeling network would require effective land use and transport planning coordination and can result in economic and social benefits (reduced congestion, enhanced quality of life, aid economic growth, facilitating movement of goods and services).	Design ▪ Consideration of transport needs in relation to land use plans and planning requirements Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Low	Low	Low	Low	**Certainty**
Social	Improve health and well-being for all citizens and reduce inequalities in health *(HIA specific objective)*	**0**	**-**	**++**	**-**	There may be some adverse air quality emissions during construction which may impact children and those with respiratory conditions. There will be improved health benefits during operation as a result of increased physical activity.	Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). Operation ▪ None identified	**0**	**-**	**++**	**-**	
								Characterisation of effects				

					Increased uptake of walking and wheeling would reduce vehicle use and associated GHG emissions, therefore providing health benefits to all citizens. Certain groups may be unable to easily access this intervention (those with mobility issues, those who are pregnant, elderly people).		S	S	S	S	**Magnitude**
							Local	Local	Local	Local	**Scale**
							ST	ST	LT	LT	**Duration**
							Temp	Temp	Perm	Perm	**Permanence**
							Low	Low	Low	Low	**Certainty**
	Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society *(EqIA specific objective)*	**0**	**0**	**+**	**-**	Interventions may benefit disadvantaged groups in society by greater access to affordable / free transport routes. Certain social groups may be unable to fully utilise walking and wheeling interventions (those with mobility issues, those who are pregnant, elderly people).	Design ▪ Consider opportunities to improve access Construction ▪ None identified Operation ▪ Implement a plan of maintenance and improvement to ensure that footpaths and cycle lanes remain an attractive option	**0**	**0**	**+**	**-**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Low	Low	Low	Low	**Certainty**

E.1.6 Introduction of new or extended traffic-free routes

Intervention Type	Introduction of new or extended traffic-free routes					
Location	**Belfast City Centre**	**Metropolitan Area**	**LCCC**	**MEABC**	**ANBC**	**ANDBC**
	✓	×				
Interventions	CC-02 CC-03 CC-04 CC-05 CC-06 CC-08 CC-09 CC-18 CC-19 CC-20 CC-25	N/A				
Option Description	New or extended traffic-free routes will be introduced to accommodate efficient and safe walking, wheeling and cycle movements in a way that is completely separated from motorised traffic.					
Embedded Mitigation	None identified at this stage					

SEA Topic	SEA Objective	Construction		Operational		Comment	Mitigation	Residual Construction		Residual Operational		
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects	
Air Quality	Protect and improve air quality	**0**	**--**	**++**	**0**	While there may be some adverse air quality emissions during construction of the new traffic-free routes, the interventions proposed would likely result in the increased use of sustainable transport as the accessibility of this network is improved, supporting a modal shift to these options and leading to a reduction in vehicle emissions. Air quality would likely be improved in discrete areas, with moderate beneficial effects at a local level.	Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on air quality, e.g. ensuring all plant and machinery are well maintained and not emitting excessive fumes Operation ▪ None identified	**0**	**-**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Climate	Reduce carbon dioxide (CO_2) emissions from transport and contribute to meeting net zero carbon targets	**0**	**--**	**++**	**0**	While there may be some adverse CO2 emissions during construction the interventions proposed would likely result in the increased use of sustainable transport as the accessibility of this network is improved, supporting a modal shift to these options and leading to a reduction in vehicle emissions. CO2 levels would likely be improved in	Design ▪ Consideration of CO2 emitting potential in the selection of materials Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on air quality, e.g. ensuring all plant and	**0**	**-**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**

						discrete areas, with moderate beneficial effects at a local level.	machinery are well maintained and not emitting excessive fumes Operation ▪ Implement a regular programme of maintenance and improvement considering CO2 emissions	ST Temp Med	ST Temp Med	LT Perm Med	LT Perm Med	**Duration** **Permanence** **Certainty**
	Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	**0**	**-**	**0**	**0**	There may be an increase in impermeable surface which would increase the risk of flooding however, some of the works may be within the existing road network and therefore adverse effects would be minor.	Construction ▪ Consideration of water quality and pollution in Construction Environmental Management Plans (CEMPs) ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring Operation ▪ None identified	**0** **Characterisation of effects** S Local ST Temp Med	**-** S Local ST Temp Med	**0** S Local LT Perm Med	**0** S Local LT Perm Med	**Magnitude** **Scale** **Duration** **Permanence** **Certainty**
Biodiversity	Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	**0**	**--**	**+**	**-**	New traffic-free routes may lead to direct loss of or encroachment onto habitat if required outside of the current road alignment or severance / fragmentation of green infrastructure. Indirect effects may also be experienced via noise, pollutant deposition etc. during construction. There may be more beneficial effects as a result of a shift to more sustainable modes of transport, reducing noise, air quality and other pressures on habitat and species. During operation there may be slight adverse effects on biodiversity from disturbance if traffic-free routes are introduced in areas of greenfield. Opportunities for ecological enhancement and BNG during operational phase.	Construction ▪ Consideration of the timing of construction works in relation to ecological windows and legislative requirements ▪ Consideration of biodiversity and designated sites and habitats in Construction Environmental Management Plans (CEMPs) ▪ Appropriate management of invasive species where applicable Operation ▪ None identified	**0** **Characterisation of effects** S Local ST Temp Med	**-** S Local ST Temp Med	**+** S Local LT Perm Med	**-** S Local LT Perm Med	**Magnitude** **Scale** **Duration** **Permanence** **Certainty**
	Protect and enhance sites designated internationally for nature conservation purposes (HRA objective)	**0**	**-**	**0**	**0**	New traffic-free routes could lead to direct loss of or encroachment onto designated sites, although avoidance is likely to be possible. Indirect effects may also be experienced via noise, pollutant deposition etc during construction. The HRA Stage 1 Screening identified potential LSE in relation to CC-02, CC-03, CC-04, CC-05, CC-18, CC-19 and CC-20.	Construction ▪ Consideration of the timing of construction works in relation to ecological windows and legislative requirements ▪ Consideration of biodiversity and designated sites and habitats in Construction Environmental Management Plans (CEMPs) ▪ Consideration of the need for a HRA ▪ Appropriate management of invasive species where applicable Operation	**0** **Characterisation of effects** S Local ST Temp	**-** S Local ST Temp	**0** S Local LT Perm	**0** S Local LT Perm	**Magnitude** **Scale** **Duration** **Permanence**

						The HRA Appropriate Assessment reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.	▪ None identified	Med	Med	Med	Med	**Certainty**
Geodiversity	Protect, enhance and promote geodiversity	**0**	**-**	**0**	**0**	New traffic-free routes have the potential to impact geodiversity sites, although it is expected that where mitigation can be implemented effects will be minor during construction. Effects would also be expected to be limited if new routes predominantly follow existing routes.	Construction ▪ Consideration of geodiversity and designated sites and habitats in Construction Environmental Management Plans (CEMPs) ▪ Consideration of the potential for geodiversity enhancement Operation ▪ None identified	**0**	**-**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Historic Environment	Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings	**0**	**--**	**+**	**0**	Cultural heritage assets in close proximity may be adversely impacted during construction either directly or indirectly through noise and vibration effects however, this is expected to be minimal during operation if in proximity to existing roads. Reducing vehicles in town centres will help to conserve cultural heritage assets during operation.	Construction ▪ Any activities within close proximity which could cause damage or disturbance to these assets, including parking vehicles should be avoided and be managed via a CEMP. Operation ▪ None identified	**0**	**-**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Landscape and Visual	Protect and enhance the character and quality of landscapes, townscapes and visual amenity	**0**	**-**	**+**	**-**	There may be short term, slight adverse impacts on visual amenity during construction. There may be slight adverse effects during operation due to the introduction of new infrastructure, particularly where the traffic-free routes do not follow existing road alignments. There may be opportunities to improve townscape during operation.	Construction ▪ Use of best practice construction techniques and Construction Environmental Management Plan (CEMP) to ensure that the character and quality of landscapes and townscapes are maintained as far as practicable during construction ▪ Careful route selection, especially in areas of greenspace. Particular protection to nationally designated areas required, with avoidance if possible Operation ▪ None identified	**0**	**-**	**+**	**-**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Water	Protect and enhance the water environment	**0**	**--**	**+**	**0**	Pollution incidents which could potentially impact the water environment through run off, are possible during construction. Reducing the number of private cars on the roads may reduce the potential for contamination of the water environment by pollution.	Construction ▪ Consideration of water quality and pollution in Construction Environmental Management Plans (CEMPs) ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring Operation	**0**	**-**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**

							▪ None identified	Med	Med	Med	Med	**Certainty**
Soil	Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	+	-	0	0	Depending on their location, new traffic-free routes could potentially negatively affect soil and agricultural land. Interventions may provide an opportunity to re-use some previously developed land, although this will be dependent on the route or location of storage.	Construction ▪ Consideration of soil quality and pollution in Construction Environmental Management Plans (CEMPs) ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring ▪ Use of SuDS and / or conventional pollution control techniques such as petrol interceptors to prevent soil pollution ▪ Remediation of land contamination if in existence Operation ▪ None identified	**+**	**-**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Natural Resources	Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated	+	-	+	0	Construction of new traffic-free routes would result in the use of materials and in waste production. However, this is not anticipated to be significant if existing developed sites are being used. The intervention would encourage sustainable forms of transport during operation.	Construction ▪ Consideration of waste hierarchy and use of recycled or re-used materials in a Site Waste Management Plan (SWMP) Operation ▪ None identified	**+**	**-**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Economic	Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all	+	0	+	0	Interventions may create employment opportunities during the construction phase and during operation there may be improved access and connectivity for all.	Construction ▪ Provide employment opportunities to unskilled / apprentices at construction stage Operation ▪ None identified	**+**	**0**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
	Support the wider coordination of land use, energy planning and transport planning across the Eastern Transport Area and into surrounding regions	0	0	++	0	An expanded traffic-free route network would require effective land use and transport planning coordination and can result in economic and social benefits (reduced congestion, enhanced quality of life, aid economic growth, facilitating movement of goods and services).	Design ▪ Consideration of transport needs in relation to land use plans and planning requirements Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Low	Low	Low	Low	**Certainty**

Social	Improve health and well-being for all citizens and reduce inequalities in health *(HIA specific objective)*	**0**	**-**	**++**	**0**	There may be some adverse air quality emissions during construction which may impact children and those with respiratory conditions. There will be improved health benefits during operation as a result of increased physical activity. Increased uptake of walking, wheeling and cycling would reduce vehicle use and associated GHG, therefore providing health benefits to all citizens. Certain groups may be unable to easily access this intervention (disabled, pregnant women, elderly)	Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). Operation ▪ Implement a plan of maintenance and improvement to ensure that footpaths and cycle lanes remain an attractive option	**0**	**-**	**++**	**0**	
								Characterisation of effects					
								S	S	S	S	**Magnitude**	
								Local	Local	Local	Local	**Scale**	
								ST	ST	LT	LT	**Duration**	
								Temp	Temp	Perm	Perm	**Permanence**	
								Low	Low	Low	Low	**Certainty**	
	Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society *(EqIA specific objective)*	**0**	**-**	**++**	**0**	During construction, there may be an adverse impact to air quality which may particularly impact children, elderly and other vulnerable groups, including those with respiratory conditions. Interventions may benefit disadvantaged groups in society by greater access to affordable / free transport routes. Certain social groups may be unable to fully utilise areas (disabled, pregnant women, elderly).	Construction ▪ See Air Quality and Climate mitigation Operation ▪ Implement a plan of maintenance and improvement to ensure that footpaths and cycle lanes remain an attractive option	**0**	**-**	**++**	**0**	
								Characterisation of effects					
								S	S	S	S	**Magnitude**	
								Local	Local	Local	Local	**Scale**	
								ST	ST	LT	LT	**Duration**	
								Temp	Temp	Perm	Perm	**Permanence**	
								Low	Low	Low	Low	**Certainty**	

E.1.7 Introduction of new or extended cycle lanes

Intervention Type	Introduction of new or extended cycle lanes					
Location	**Belfast City Centre**	**Metropolitan Area**	**LCCC**	**MEABC**	**ANBC**	**ANDBC**
	✓	✓				
Interventions	CC-04 CC-06 CC-07 CC-08 CC-09	MA-07 MA-09 MA-10				

	CC-25
Option Description	Cycle lanes will help to facilitate safe and more convenient journeys by bike. The proposals in this category include introduction of a mixture of bi-directional and one-way cycle lanes that separate cyclists from general traffic where necessary. The design of these routes should align with best practice to either enable safe sharing of space between pedestrians and cyclists or to deliver suitable separation where it is needed. Cycle lanes will be achieved largely as a result of road space reallocation away from general traffic.
Embedded Mitigation	None identified at this stage.

SEA Topic	SEA Objective	Construction		Operational		Comment	Mitigation	Residual Construction		Residual Operational		
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects	
Air Quality	Protect and improve air quality	**0**	**--**	**++**	**0**	There may be some adverse air quality emissions during construction. It is anticipated that improvements for cycling would encourage a modal shift away from vehicle use to more sustainable transport options and therefore lead to a reduction in vehicle emissions.	Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on air quality, e.g. ensuring all plant and machinery are well maintained and not emitting excessive fumes Operation ▪ None identified	**0**	**-**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								High	High	High	High	**Certainty**
Climate	Reduce carbon dioxide (CO_2) emissions from transport and contribute to meeting net zero carbon targets	**0**	**--**	**++**	**0**	There may be some adverse effects in terms of carbon emissions during construction. It is anticipated that improvements for cycling would encourage a modal shift away from vehicle use to more sustainable transport options and therefore lead to a reduction in vehicle emissions.	Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on air quality, e.g. ensuring all plant and machinery are well maintained and not emitting excessive fumes Operation ▪ None identified	**0**	**-**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								High	High	High	High	**Certainty**
	Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	0	0	0	-	These interventions are for the most part anticipated to be located within urbanised land and therefore there is not likely to be increases in impermeable area (or marginal increases in worst case).	Construction ▪ Consideration of water quality and pollution in Construction Environmental Management Plans (CEMPs) ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring Operation ▪ None identified	**0**	**0**	**0**	**-**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**

Biodiversity	Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	**0**	**-**	**+**	**0**	While there may be some temporary, adverse impacts on biodiversity during construction (noise and vibration). It is expected that these interventions will for the most part be alternations to existing roads and therefore significant effects or loss of biodiversity are not anticipated. During operation increased cycling and a reduction in vehicle use could help reduce congestion (particularly in town centres) and reduce noise and vibration which would have beneficial effects on fauna. Pollutant deposition will also be reduced, having a beneficial effect on biodiversity.	Construction ▪ Consideration of the timing of construction works in relation to ecological windows and legislative requirements ▪ Consideration of biodiversity and designated sites and habitats in Construction Environmental Management Plans (CEMPs) Operation ▪ None identified	**0**	**-**	**+**	**0**	
								Characterisation of effects			
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								High	High	High	High	**Certainty**
	Protect and enhance sites designated internationally for nature conservation purposes (HRA objective)	**0**	**0**	**0**	**0**	No effects expected on designated sites due to the nature of the intervention. The HRA Stage 1 Screening identified potential LSE in relation to CC-04, MA-09 and MA-10. The HRA Appropriate Assessment reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.	Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**0**	**0**	
								Characterisation of effects			
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								High	High	High	High	**Certainty**
Geodiversity	Protect, enhance and promote geodiversity	**0**	**0**	**0**	**0**	No effects expected on geodiversity are anticipated due to the nature of the intervention.	Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**0**	**0**	
								Characterisation of effects			
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								High	High	High	High	**Certainty**
Historic Environment	Conserve and enhance heritage assets and the	**0**	**-**	**+**	**0**	Cultural heritage assets in close proximity may	Construction	**0**	**-**	**+**	**0**	

	wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings					be adversely impacted during construction, although effects are not anticipated to be significant. Reducing vehicles in town centres will help to conserve cultural heritage assets during operation.	▪ Any activities within close proximity which could cause damage or disturbance to these assets, including parking vehicles should be avoided and be managed via a CEMP. Operation ▪ None identified	**Characterisation of effects** S / S / S / S — **Magnitude** Local / Local / Local / Local — **Scale** ST / ST / LT / LT — **Duration** Temp / Temp / Perm / Perm — **Permanence** Med / Med / Med / Med — **Certainty**
Landscape and Visual	Protect and enhance the character and quality of landscapes, townscapes and visual amenity	**0**	**-**	**+**	**0**	There may be short term, slight adverse impacts on visual amenity during construction. There may be opportunities to improve townscape during operation.	Construction ▪ Use of best practice construction techniques and Construction Environmental Management Plan (CEMP) to ensure that the character and quality of landscapes and townscapes are maintained as far as practicable during construction Operation ▪ None identified	**0 / - / + / 0** **Characterisation of effects** S / S / S / S — **Magnitude** Local / Local / Local / Local — **Scale** ST / ST / LT / LT — **Duration** Temp / Temp / Perm / Perm — **Permanence** Med / Med / Med / Med — **Certainty**
Water	Protect and enhance the water environment	**0**	**-**	**+**	**0**	Pollution incidents which could potentially impact the water environment through run off, are possible during construction. Reducing the number of private cars on the roads may reduce the potential for contamination of the water environment by pollution.	Construction ▪ Consideration of water quality and pollution in Construction Environmental Management Plans (CEMPs) ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring Operation ▪ None identified	**0 / - / + / 0** **Characterisation of effects** S / S / S / S — **Magnitude** Local / Local / Local / Local — **Scale** ST / ST / LT / LT — **Duration** Temp / Temp / Perm / Perm — **Permanence** Med / Med / Med / Med — **Certainty**
Soil	Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	**0**	**0**	**0**	**0**	These interventions are unlikely to have an impact on soils or contaminated land.	Construction ▪ None identified Operation ▪ None identified	**0 / 0 / 0 / 0** **Characterisation of effects** S / S / S / S — **Magnitude** Local / Local / Local / Local — **Scale** ST / ST / LT / LT — **Duration** Temp / Temp / Perm / Perm — **Permanence** High / High / High / High — **Certainty**
Natural Resources	Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated	**0**	**-**	**0**	**0**	Construction involved in the reallocation of roadspace would result in use of materials and waste production, although as it involves alteration to existing carriageways effects are anticipated to be minor.	Construction ▪ Consideration of waste hierarchy and use of recycled or re-used materials in a Site Waste Management Plan (SWMP) Operation ▪ None identified	**0 / - / 0 / 0** **Characterisation of effects** S / S / S / S — **Magnitude** Local / Local / Local / Local — **Scale** ST / ST / LT / LT — **Duration** Temp / Temp / Perm / Perm — **Permanence** Med / Med / Med / Med — **Certainty**

Economic	Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all	+	0	++	0	These interventions may create some employment opportunities during the construction phase. During operation there may be reduced congestion and improved access and connectivity for all.	Construction ▪ Provide employment opportunities to unskilled / apprentices where possible at construction stage Operation ▪ None identified	+	0	++	0		
								Characterisation of effects					
								S	S	S	S	Magnitude	
								Local	Local	Local	Local	Scale	
								ST	ST	LT	LT	Duration	
								Temp	Temp	Perm	Perm	Permanence	
								Med	Med	Med	Med	Certainty	
	Support the wider coordination of land use, energy planning and transport planning across the Eastern Transport Area and into surrounding regions	0	0	++	0	An expanded cycle network would require effective land use and transport planning coordination and can result in economic and social benefits (reduced congestion, enhanced quality of life, aid economic growth, facilitating movement of goods and services).	Design ▪ Consideration of transport needs in relation to land use plans and planning requirements Construction ▪ None identified Operation ▪ None identified	0	0	++	0		
								Characterisation of effects					
								S	S	S	S	Magnitude	
								Local	Local	Local	Local	Scale	
								ST	ST	LT	LT	Duration	
								Temp	Temp	Perm	Perm	Permanence	
								Low	Low	Low	Low	Certainty	
Social	Improve health and well-being for all citizens and reduce inequalities in health *(HIA specific objective)*	0	-	++	-	There may be some adverse air quality emissions during construction which may impact children and those with respiratory conditions. There will be improved health benefits during operation as a result of increased physical activity. Increased uptake of cycling would reduce vehicle use and associated GHG, therefore providing health benefits to all citizens. Certain groups may be unable to easily access this intervention (disabled, pregnant women, elderly).	Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). Operation ▪ None identified	0	-	++	-		
								Characterisation of effects					
								S	S	S	S	Magnitude	
								Local	Local	Local	Local	Scale	
								ST	ST	LT	LT	Duration	
								Temp	Temp	Perm	Perm	Permanence	
								Low	Low	Low	Low	Certainty	
	Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society *(EqIA specific objective)*	0	0	+	-	Interventions may benefit disadvantaged groups in society by greater access to affordable / free transport routes. Certain social groups may be unable to fully utilise areas (disabled,	Construction ▪ None identified Operation ▪ Implement a plan of maintenance and improvement to ensure that footpaths and cycle lanes remain an attractive option	0	0	+	-		
								Characterisation of effects					
								S	S	S	S	Magnitude	
								Local	Local	Local	Local	Scale	
								ST	ST	LT	LT	Duration	
								Temp	Temp	Perm	Perm	Permanence	
								Low	Low	Low	Low	Certainty	

		pregnant women, elderly).		

E.1.8 Parking (reduction in parking capacities, changes to charges and intro of RPZs)

Intervention Type	Parking (reduction in parking capacities, changes to charges and intro of RPZs)				
Location	**Belfast City Centre**	**Metropolitan Area**	**LCCC**	**MEABC**	**ANBC**	**ANDBC**
	✓	✓				
Interventions	CC-05 CC-18 CC-19 CC-20 CC-21 CC-22 CC-23 CC-24 CC-25	MA-03 MA-22 MA-23 MA-24				
Option Description	Interventions related to car parking will focus on the rationalisation of parking spaces and a review of parking charges, in line with a policy of encouraging increased use of sustainable transport modes. Parking supply will seek to accommodate only those journeys that cannot otherwise be made by public transport or active travel and providing for those that live in or close to the area. As such, a review of residents parking zones will be required to limit any unintended impacts on surrounding residential areas.				
Embedded Mitigation	None identified at this stage.				

SEA Topic	SEA Objective	Construction		Operational		Comment	Mitigation	Residual Construction		Residual Operational		
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects	
Air Quality	Protect and improve air quality	**0**	**-**	**++**	**0**	Any construction required is expected to be limited and therefore effects are not anticipated to be significant. Reduction in parking availability and changes to charges may promote more sustainable travel methods which will lead to a reduction in vehicle emissions.	Design ▪ Identify the potential for schemes that may have a beneficial impact on Air Quality Management Areas Construction ▪ None identified Operation ▪ None identified	**0**	**-**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Climate	Reduce carbon dioxide (CO_2) emissions from transport and contribute to meeting net zero carbon targets	**0**	**-**	**++**	**0**	Any construction required is expected to be limited and therefore effects are not anticipated to be significant. Reduction in parking availability and changes to charges may promote more sustainable travel methods which will lead to a reduction in vehicle emissions.	Construction ▪ None identified Operation ▪ None identified	**0**	**-**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
	Increase resilience of the transport network to the effects of a changing climate such as	**0**	**0**	**0**	**0**	There are no effects anticipated in relation to increase climate change	Design ▪ Design to consider flood protection measures, flow routes and flood storage capacity	**0**	**0**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**

	extreme weather events					resilience and reducing flood risk.	Construction ▪ None identified Operation ▪ None identified	Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Biodiversity	Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	**0**	**-**	**+**	**0**	Any construction required is expected to be limited and therefore effects are not anticipated to be significant. Reduction in parking availability and changes to charges may promote more sustainable travel methods which will lead to a reduction in noise and pollutant deposition and have positive effects on biodiversity.	Construction ▪ None identified Operation ▪ None identified	**0**	**-**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
	Protect and enhance sites designated internationally for nature conservation purposes (HRA objective)	**0**	**0**	**0**	**0**	No effects expected on internationally designated sites due to the nature of the intervention. The HRA Stage 1 Screening identified potential LSE in relation to CC-05, CC-18, CC-19, CC-20 and MA-03. The HRA Appropriate Assessment reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.	Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Geodiversity	Protect, enhance and promote geodiversity	**0**	**0**	**0**	**0**	No effects expected on geodiversity due to the nature of the intervention.	Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Historic Environment	Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological	**0**	**0**	**0**	**0**	No effects expected on cultural heritage due to the nature of the intervention.	Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**

	remains and their settings							Med	Med	Med	Med	**Certainty**
Landscape and Visual	Protect and enhance the character and quality of landscapes, townscapes and visual amenity	**0**	**0**	**0**	**0**	No effects expected on landscape, townscape or visual amenity due to the nature of the intervention.	Design ▪ Opportunities to improve townscape, e.g. through decluttering of signage to be considered during design Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Water	Protect and enhance the water environment	**0**	**0**	**0**	**0**	This type of intervention is unlikely to give rise to impacts on the water environment.	Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Soil	Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	**0**	**0**	**0**	**0**	These interventions are unlikely to have an impact on soils or contaminated land.	Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Natural Resources	Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated	**0**	**0**	**0**	**0**	This type of intervention is unlikely to impact on resources and waste.	Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Economic	Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all	**0**	**0**	**+**	**0**	Operation of these interventions may help to reduce congestion through increased use of sustainable travel and therefore improve access to employment and skills	Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**

	Support the wider coordination of land use, energy planning and transport planning across the Eastern Transport Area and into surrounding regions	**0**	**0**	**+**	**0**	Locations for parking and where it should be reduced would require effective land use and transport planning coordination.	Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Social	Improve health and well-being for all citizens and reduce inequalities in health *(HIA specific objective)*	**0**	**0**	**+**	**-**	Parking management may benefit disadvantaged groups in society by providing easier access to those who need it (disabled, pregnant women, elderly) and improving mental wellbeing and reducing health inequalities. The interventions will have benefits on air quality and therefore the physical health and wellbeing of children and those with respiratory illnesses. Increases in charges may be unaffordable for some and therefore restrict car usage among some socio-economic groups. This may have a knock on effect on access to health care services which may not be easily accessed by public transport / walk/ cycle options. Incurring public transport costs in addition to pre-existing costs for an already purchased vehicle may have adverse financial effects on disadvantaged groups, thus having an adversely impact on mental wellbeing.	Construction ▪ None identified Operation ▪ Regular reviews of pricing / consideration of affordability ▪ Parking for residents to be maintained and managed through RPZ Plan proposals.	**0**	**0**	**+**	**-**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**

	Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society *(EqIA specific objective)*	**0**	**0**	**+**	**--**	Affordability of charges may restrict car usage among some socio-economic groups. Incurring public transport costs in addition to pre-existing costs for an already purchased vehicle may have adverse financial effects on disadvantaged groups. Parking management may benefit disadvantaged groups in society by providing easier access to certain groups (disabled, pregnant women, elderly).	Construction ▪ None identified Operation ▪ Regular reviews of pricing / consideration of affordability ▪ Parking for residents to be maintained and managed through RPZ Plan proposals.	**0**	**0**	**+**	**--**	

Characterisation of effects				
S	S	S	S	**Magnitude**
Local	Local	Local	Local	**Scale**
ST	ST	LT	LT	**Duration**
Temp	Temp	Perm	Perm	**Permanence**
Med	Med	Med	Med	**Certainty**

E.1.9 Park and Ride

Intervention Type	Park and Ride					
Location	**Belfast City Centre**	**Metropolitan Area**	**LCCC**	**MEABC**	**ANBC**	**ANDBC**
	×	✓				
Interventions	N/A	MA-16 MA-17 MA-18 MA-19 MA-20 MA-21				
Option Description	Introduction of new Park and Ride facilities to encourage the use of sustainable transport.					
Embedded Mitigation	None identified at this stage.					

SEA Topic	**SEA Objective**	**Construction**		**Operational**		**Comment**	**Mitigation**	**Residual Construction**		**Residual Operational**	
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects
Air Quality	Protect and improve air quality	**0**	**--**	**+**	**0**	While there may be some adverse air quality emissions during construction of any new sites, the interventions proposed would likely result in the increased use of sustainable transport as the P&R network connectivity and accessibility is improved, supporting a modal shift to these options and leading to a reduction in vehicle emissions. If increases to the bus fleet is required due to the associated modal shift in sustainable transport, investment in lower emission buses will also encourage an improvement in air quality interventions.	Design ▪ Low emission buses Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on air quality, e.g. ensuring all plant and machinery are well maintained and not emitting excessive fumes Operation ▪ Stations and facilities to use clean energy	**0**	**-**	**+**	**0**
								Characterisation of effects			
								S	S	S	S
								Local	Local	Local	Local
								ST	ST	LT	LT
								Temp	Temp	Perm	Perm
								Med	Med	Med	Med
Climate	Reduce carbon dioxide (CO_2) emissions from transport and contribute to meeting net zero carbon targets	**0**	**--**	**+**	**0**	While there may be some CO2 emissions during construction of any new sites, the interventions proposed would likely result in the increased use of sustainable transport as the P&R network connectivity and accessibility is improved, supporting a modal shift to these options and leading to a reduction in CO2 emissions.	Design ▪ Consideration of CO2 emitting potential in the selection of materials ▪ Use of a carbon footprint calculator to assess performance and identify areas for improvement Construction ▪ Consideration of emissions in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on air	**0**	**-**	**+**	**0**
								Characterisation of effects			
								S	S	S	S
								Local	Local	Local	Local
								ST	ST	LT	LT
								Temp	Temp	Perm	Perm
								Med	Med	Med	Med

						If increases to the bus fleet is required due to the associated modal shift in sustainable transport, investment in lower emission buses will also encourage an improvement in CO2 interventions.	quality, e.g. ensuring all plant and machinery are well maintained and not emitting excessive fumes ▪ Setting energy targets and monitoring performance Operation ▪ Low emission buses ▪ Use of a carbon footprint calculator to monitor performance and identify areas for improvement ▪ Implement a regular programme of maintenance and improvement considering CO2 emissions					
	Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	**0**	**--**	**+**	**0**	New sites may lead to an increase in impermeable area and therefore contribute to increased flood risk by increasing runoff to nearby watercourses. They could also be located within flood zones and therefore would be liable to flooding. It is likely that there would be opportunities to integrate flood protection and alleviation in new site design leading to some benefits in respect of resilience.	Design ▪ Careful route selection – avoid flood areas if possible ▪ Design to consider flood protection measures, flow routes and flood storage capacity Construction ▪ Consideration of storm water runoff and dewatering operations in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on flooding, e.g. use of temporary SuDs features to control site runoff. Operation ▪ Use of SuDS (sized to allow for a changing climate).	**0**	**-**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Biodiversity	Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	**0**	**--**	**+**	**0**	New sites may lead to direct loss of or encroachment onto habitat or the severance / fragmentation of green infrastructure. Indirect effects can also be experienced via noise, pollutant deposition etc during construction and operation. There may be more beneficial effects as a result of a shift to more sustainable modes of transport, reducing noise, air quality and other pressures on habitat and species. Opportunities for ecological enhancement and BNG during operational phase.	Design ▪ Avoidance of designated sites ▪ Consideration of the potential for ecological enhancement ▪ Protect green corridors ▪ Planting of appropriate native species ▪ Animal over / under passes ▪ Consideration of installation of bird / bat boxes ▪ Consideration of planting of trees Construction ▪ Consideration of the timing of construction works in relation to ecological windows and legislative requirements. ▪ Consideration of biodiversity and designated sites and habitats in Construction Environmental Management Plans (CEMPs). ▪ Appropriate management of invasive species where applicable.	**0**	**-**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**

							Operation ▪ Scheduled control of invasive species where necessary					
	Protect and enhance sites designated internationally for nature conservation purposes (HRA objective)	**0**	**--**	**0**	**0**	New sites may lead to direct loss of or encroachment onto designated sites. Indirect effects may also be experienced via noise, pollutant deposition etc during construction. The HRA Stage 1 Screening identified potential LSE in relation to all the Park and Ride schemes with the exception of MA-20. The HRA Appropriate Assessment, reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.	Construction ▪ Consideration of the timing of construction works in relation to ecological windows and legislative requirements. ▪ Consideration of biodiversity and designated sites and habitats in Construction Environmental Management Plans (CEMPs). ▪ Consideration of the need for a HRA. ▪ Appropriate management of invasive species where applicable. Operation ▪ None identified.	**0**	**-**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Geodiversity	Protect, enhance and promote geodiversity	**0**	**--**	**0**	**0**	New sites could lead to direct loss of or encroachment onto geodiversity sites and consequent adverse effects during construction. However,	Design ▪ Avoidance of designated geodiversity sites ▪ Consideration of the potential for geodiversity enhancement Construction ▪ Consideration of geodiversity and designated sites and habitats in Construction Environmental Management Plans (CEMPs). ▪ Consideration of the potential for geodiversity enhancement. Operation ▪ None identified	**0**	**-**	**0**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Historic Environment	Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings	**0**	**--**	**+**	**0**	Construction of new infrastructure may have a detrimental effect on the character and setting of heritage assets. It also has the potential for previously unknown heritage features to be disturbed or damaged, although the discovery of such heritage features would be positive. The interventions may provide an opportunity to enhance any known features previously affected. During operation, new infrastructure in proximity to heritage assets may have	Design ▪ Consideration of character, setting, level of protection and potential need for conservation during planning and design ▪ Consideration of opportunities for enhancement of known features of industrial and cultural heritage significance Construction ▪ Precautions for unexpected heritage discovery during construction. ▪ Potential need for archaeological watching brief during construction, particularly in areas not previously developed.	**0**	**-**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**

						adverse effects however, this is expected to be minimal if in proximity to existing roads. In areas where there will be reduced use of private cars and congestion there may be positive effects on such assets.	▪ Consideration of unexpected heritage discovery in Construction Environmental Management Plans (CEMPs). ▪ Any activities within close proximity which could cause damage or disturbance to these assets, including parking vehicles should be avoided and be managed via a CEMP. Operation ▪ None identified					
Landscape and Visual	Protect and enhance the character and quality of landscapes, townscapes and visual amenity	**0**	**--**	**+**	**0**	There may be short term, slight adverse impacts on visual amenity during construction. New sites may have a detrimental effect on landscape, depending on their location. Effects are likely to be to a lesser extent if located in already developed, urban areas.	Design ▪ Consideration during planning / design to landscaping and screening, with care taken in choice of materials and species used. Construction ▪ Use of best practice construction techniques and Construction Environmental Management Plan (CEMP) to ensure that the character and quality of landscapes and townscapes are maintained as far as practicable during construction. ▪ Careful site selection, especially in areas of greenspace. Particular protection to nationally designated areas required, with avoidance if possible. ▪ Opportunities to improve townscape, e.g. through decluttering of signage to be considered during design. Operation ▪ None identified.	**0**	**-**	**+**	**-**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Water	Protect and enhance the water environment	**0**	**--**	**+**	**0**	New sites would result in an increase in impermeable areas, potentially leading to increased contaminated surface water runoff. Pollution incidents may also occur during construction. In some cases there is potential opportunity for installation of some SuDS features e.g. green rooves, water butts, permeable paving etc. which can control runoff and help address pollution. Where interventions are located within urbanised lands, there is not likely to be increases in impermeable area (or marginal increases in worst case). Increased use of public transport instead of private cars may help to reduce	Design ▪ Explore the opportunities for the use of SuDS Construction ▪ Consideration of water quality and pollution in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring. Operation ▪ Use of SuDS and / or conventional pollution control techniques such as petrol interceptors	**0**	**-**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**

						pollution to the water environment.						
Soil	Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	+	-	0	0	New sites have the potential to disturb best and most versatile agricultural land and soils depending on their location. There may be an opportunity for schemes to remediate contaminated land or re-use previously developed land.	Design ▪ Avoidance of best and most versatile agricultural land ▪ Remediation of land contamination if in existence Construction ▪ Consideration of soil quality and pollution in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring. ▪ Use of SuDS and / or conventional pollution control techniques such as petrol interceptors to prevent soil pollution. ▪ Remediation of land contamination if in existence. Operation ▪ Use of SuDS and / or conventional pollution control techniques such as petrol interceptors to prevent soil pollution	+	-	0	0	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Natural Resources	Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated	+	--	+	0	Construction of these interventions would result in a requirement for additional resources and increased waste production. There may be opportunities for the use of recycled materials during construction. The intervention would encourage sustainable forms of transport during operation.	Design ▪ Sustainable design measures Construction ▪ Consideration of waste hierarchy and use of recycled or re-used materials in a Site Waste Management Plan (SWMP). Operation ▪ Encourage the use of electric vehicles	+	-	+	0	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Economic	Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all	++	0	+	0	Interventions may create employment opportunities during the construction phase and during operation there may be improved access and connectivity for all.	Design ▪ Consideration of economic growth at route option selection stage Construction ▪ Provide employment opportunities to unskilled / apprentices at construction stage Operation ▪ Implement a plan of maintenance and improvement to ensure that the connectivity to commercial / economic centres is maintained	++	0	+	0	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
	Support the wider coordination of land use, energy planning and transport planning across the Eastern	0	0	++	0	An upgraded P&R strategy would require effective transport planning coordination, land use planning regarding new	Design ▪ Consideration of transport needs in relation to land use plans and planning requirements	0	0	++	0	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**

	Transport Area and into surrounding regions					sites, and can result in economic and social benefits (reduced congestion, enhanced quality of life, aid economic growth).	Construction ▪ None identified Operation ▪ None identified	ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Low	Low	Low	Low	**Certainty**
Social	Improve health and well-being for all citizens and reduce inequalities in health *(HIA specific objective)*	**0**	**-**	**++**	**0**	There may be some adverse air quality emissions during construction which may impact children and those with respiratory conditions. New infrastructure construction could also potentially have detrimental effects on health and well-being with the chance of accidents during construction. Increased use of public transport would reduce vehicle use and associated GHG, therefore providing health benefits to all citizens. An upgraded P&R strategy / network will primarily benefit those in ownership of cars, though some benefit will likely be experienced by bus users. Access may also be increased to employment opportunities and public services / recreational facilities, promoting greater equality of opportunity for all citizens, as they would provide greater connectivity and accessibility, thus improving overall wellbeing.	Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). Operation ▪ Regular reviews of ticket pricing / consideration of affordability.	**0**	**-**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Low	Low	Low	Low	**Certainty**
	Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society *(EqIA specific objective)*	**0**	**-**	**++**	**0**	During construction, there may be an adverse impact to air quality which may particularly impact children, elderly and other vulnerable groups, including those with respiratory conditions. An upgraded P&R strategy / network will primarily benefit those in ownership of cars, though some benefit will likely be experienced by bus users. Access may also be increased to employment opportunities and public services / recreational facilities, promoting greater equality of opportunity for all citizens, as they would provide greater connectivity	Design ▪ Consider potential for severance from key public services, or opportunities to improve access Construction ▪ See Air Quality and Climate mitigation Operation ▪ Regular reviews of ticket pricing / consideration of affordability	**0**	**-**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Low	Low	Low	Low	**Certainty**

			and accessibility. However, affordability of private and public transport will remain a key factor in this scheme being accessible to all.		

E.1.10 New travel hubs

Intervention Type	New travel hubs					
Location	**Belfast City Centre**	**Metropolitan Area**	**LCCC**	**MEABC**	**ANBC**	**ANDBC**
	✓	✓				
Interventions	CC-17	MA-16				
Option Description	The hubs will provide space to focus bus stopping and layover activity in designated areas will also unlock 'far siding' opportunities for bus journeys. The hubs will incorporate new and improved mobility facilities such as bike hire and secure bike storage facilities to support onward journeys via active modes. Wider walking, wheeling and cycling proposals will deliver improved quality of footways, crossings, cycle paths and wayfinding to ensure that onwards journeys can be accommodated safely and conveniently.					
Embedded Mitigation	None identified at this stage					

SEA Topic	**SEA Objective**	**Construction**		**Operational**		**Comment**	**Mitigation**	**Residual Construction**		**Residual Operational**	
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects
Air Quality	Protect and improve air quality	**0**	**--**	**+**	**0**	While there may be some adverse air quality emissions during construction of new hubs, the interventions proposed would likely result in the increased use of sustainable transport such as walking, cycling and public transport as connectivity and accessibility is improved, supporting a modal shift to these options and leading to a reduction in vehicle emissions.	Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on air quality, e.g. ensuring all plant and machinery are well maintained and not emitting excessive fumes Operation ▪ Low emission buses ▪ Stations and facilities to use clean energy	**0**	**-**	**+**	**0**
								Characterisation of effects			
								S	S	S	S
								Local	Local	Local	Local
								ST	ST	LT	LT
								Temp	Temp	Perm	Perm
								Med	Med	Med	Med
Climate	Reduce carbon dioxide (CO_2) emissions from transport and contribute to meeting net zero carbon targets	**0**	**--**	**+**	**0**	While there may be some CO2 emissions during construction of new hubs, the interventions proposed would likely result in the increased use of sustainable transport such as walking, cycling and public transport as connectivity and accessibility is improved, supporting a modal shift to these options and leading to a reduction in CO2 emissions.	Design ▪ Consideration of CO2 emitting potential in the selection of materials ▪ Use of a carbon footprint calculator to assess performance and identify areas for improvement Construction ▪ Consideration of emissions in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on air quality, e.g. ensuring all plant and machinery are well maintained and not emitting excessive fumes ▪ Methods to reduce Carbon Footprint during construction,	**0**	**-**	**+**	**0**
								Characterisation of effects			
								S	S	S	S
								Local	Local	Local	Local
								ST	ST	LT	LT
								Temp	Temp	Perm	Perm
								Med	Med	Med	Med

							e.g. use by contractor of carbon calculator ▪ Setting energy targets and monitoring performance Operation ▪ Low emission buses ▪ Development and regular monitoring of KPIs ▪ Implement a regular programme of maintenance and improvement considering CO2 emissions					
	Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	**0**	**--**	**+**	**0**	New hubs may lead to an increase in impermeable area and therefore contribute to increased flood risk by increasing runoff to nearby watercourses. They could also be located within flood zones and therefore would be liable to flooding. It is likely that there would be opportunities to integrate flood protection and alleviation in new site design leading to some benefits in respect of resilience.	Design ▪ Careful site selection – avoid flood areas if possible ▪ Design to consider flood protection measures, flow routes and flood storage capacity Construction ▪ Consideration of storm water runoff and dewatering operations in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on flooding, e.g. use of temporary SuDs features to control site runoff. Operation ▪ Use of SuDS (sized to allow for a changing climate).	**0**	**-**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Biodiversity	Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	**0**	**--**	**+**	**0**	New hubs may lead to direct loss of or encroachment onto habitat or the severance / fragmentation of green infrastructure. Indirect effects can also be experienced via noise, pollutant deposition etc during construction and operation. There may be more beneficial effects as a result of a shift to more sustainable modes of transport, reducing noise, air quality and other pressures on habitat and species. Opportunities for ecological enhancement and BNG during operational phase.	Design ▪ Avoidance of designated sites ▪ Consideration of the potential for ecological enhancement ▪ Protect green corridors ▪ Planting of appropriate native species ▪ Consideration of installation of bird / bat boxes ▪ Consideration of planting of trees Construction ▪ Consideration of the timing of construction works in relation to ecological windows and legislative requirements. ▪ Consideration of biodiversity and designated sites and	**0**	**-**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**

							habitats in Construction Environmental Management Plans (CEMPs). ▪ Appropriate management of invasive species where applicable. Operation ▪ Scheduled control of invasive species where necessary					
	Protect and enhance sites designated internationally for nature conservation purposes (HRA objective)	**0**	**--**	**0**	**0**	New hubs may lead to direct loss of or encroachment onto designated sites. Indirect effects may also be experienced via noise, pollutant deposition etc during construction. The HRA Stage 1 Screening identified potential LSE in relation to both CC-17 and MA-16. The Appropriate Assessment reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.	Construction ▪ Consideration of the timing of construction works in relation to ecological windows and legislative requirements. ▪ Consideration of biodiversity and designated sites and habitats in Construction Environmental Management Plans (CEMPs). ▪ Consideration of the need for a HRA. ▪ Appropriate management of invasive species where applicable. Operation ▪ None identified.	**0** **Characterisation of effects** S Local ST Temp Med	**-** S Local ST Temp Med	**0** S Local LT Perm Med	**0** S Local LT Perm Med	 **Magnitude** **Scale** **Duration** **Permanence** **Certainty**
Geodiversity	Protect, enhance and promote geodiversity	**0**	**--**	**0**	**0**	New hubs could lead to direct loss of or encroachment onto geodiversity sites and consequent adverse effects during construction.	Design ▪ Avoidance of designated geodiversity sites ▪ Consideration of the potential for geodiversity enhancement Construction ▪ Consideration of geodiversity and designated sites and habitats in Construction Environmental Management Plans (CEMPs). ▪ Consideration of the potential for geodiversity enhancement. Operation ▪ None identified	**0** **Characterisation of effects** S Local ST Temp Med	**-** S Local ST Temp Med	**0** S Local LT Perm Med	**0** S Local LT Perm Med	 **Magnitude** **Scale** **Duration** **Permanence** **Certainty**
Historic Environment	Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological	**0**	**--**	**+**	**0**	Construction of new infrastructure may have a detrimental effect on the character and setting of heritage assets. It also has the potential for previously unknown heritage features to be disturbed or damaged, although the discovery of such heritage features would be positive. The interventions may provide an opportunity to enhance any known features previously affected. During operation, new infrastructure in proximity to heritage assets may have	Design ▪ Consideration of character, setting, level of protection and potential need for conservation during planning and design Construction ▪ Precautions for unexpected heritage discovery during construction.	**0** **Characterisation of effects** S Local ST Temp	**-** S Local ST Temp	**+** S Local LT Perm	**0** S Local LT Perm	 **Magnitude** **Scale** **Duration** **Permanence**

	remains and their settings					adverse effects however, this is expected to be minimal if in proximity to existing roads. In areas where there will be reduced use of private cars and congestion there may be positive effects on such assets.	▪ Potential need for archaeological watching brief during construction, particularly in areas not previously developed. ▪ Consideration of unexpected heritage discovery in Construction Environmental Management Plans (CEMPs). ▪ Any activities within close proximity which could cause damage or disturbance to these assets, including parking vehicles should be avoided and be managed via a CEMP. Operation ▪ None identified	Med	Med	Med	Med	**Certainty**
Landscape and Visual	Protect and enhance the character and quality of landscapes, townscapes and visual amenity	**0**	**--**	**+**	**0**	There may be short term, slight adverse impacts on visual amenity during construction. New hubs may have a detrimental effect on landscape, depending on their location. Effects are likely to be to a lesser extent if located in already developed, urban areas.	Design ▪ Consideration during planning / design to landscaping and screening, with care taken in choice of materials and species used. Construction ▪ Use of best practice construction techniques and Construction Environmental Management Plan (CEMP) to ensure that the character and quality of landscapes and townscapes are maintained as far as practicable during construction. ▪ Careful site selection, especially in areas of greenspace. Particular protection to nationally designated areas required, with avoidance if possible. ▪ Opportunities to improve townscape, e.g. through decluttering of signage to be considered during design. Operation ▪ None identified.	**0**	**-**	**+**	**-**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Water	Protect and enhance the water environment	**0**	**--**	**+**	**0**	New hubs would result in an increase in impermeable areas, potentially leading to increased contaminated surface water runoff. Pollution incidents may also occur during construction. In some cases there is potential opportunity for installation of some SuDS features e.g. green rooves, water butts, permeable	Design ▪ Explore opportunities for use of SuDS Construction ▪ Consideration of water quality and pollution in Construction	**0**	**-**	**+**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**

						paving etc. which can control runoff and help address pollution. Where interventions are located within urbanised land, there is not likely to be increases in impermeable area (or marginal increases in worst case). Increased use of public transport and active travel instead of private cars may help to reduce pollution to the water environment.	Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring. Operation ▪ Use of SuDS and / or conventional pollution control techniques such as petrol interceptors	Local ST Temp Med	Local ST Temp Med	Local LT Perm Med	Local LT Perm Med	**Scale** **Duration** **Permanence** **Certainty**
Soil	Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	**+**	**-**	**0**	**0**	New hubs have the potential to disturb best and most versatile agricultural land and soils depending on their location. There may be an opportunity for schemes to remediate contaminated land or re-use previously developed land.	Design ▪ Avoidance of best and most versatile agricultural land ▪ Remediation of land contamination if in existence Construction ▪ Consideration of soil quality and pollution in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring. ▪ Use of SuDS and / or conventional pollution control techniques such as petrol interceptors to prevent soil pollution. ▪ Remediation of land contamination if in existence. Operation ▪ Use of SuDS and / or conventional pollution control techniques such as petrol interceptors to prevent soil pollution	**+** **Characterisation of effects** S Local ST Temp Med	**-** S Local ST Temp Med	**0** S Local LT Perm Med	**0** S Local LT Perm Med	**Magnitude** **Scale** **Duration** **Permanence** **Certainty**
Natural Resources	Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated	**+**	**--**	**+**	**0**	Construction of these interventions would result in a requirement for additional resources and increased waste production. There may be opportunities for the use of recycled materials during construction. The intervention would encourage sustainable forms of transport during operation.	Design ▪ Sustainable design measures Construction ▪ Consideration of waste hierarchy and use of recycled or re-used materials in a Site Waste Management Plan (SWMP). Operation ▪ Encourage the use of electric vehicles	**+** **Characterisation of effects** S Local ST Temp Med	**-** S Local ST Temp Med	**+** S Local LT Perm Med	**0** S Local LT Perm Med	**Magnitude** **Scale** **Duration** **Permanence** **Certainty**

Economic	Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all	++	0	+	0	Interventions may create employment opportunities during the construction phase and during operation there may be improved access and connectivity for all.	Design ▪ Consideration of economic growth at site option selection stage Construction ▪ Provide employment opportunities to unskilled / apprentices at construction stage Operation ▪ Implement a plan of maintenance and improvement to ensure that the connectivity to commercial / economic centres is maintained	++	0	+	0		
								Characterisation of effects					
								S	S	S	S	**Magnitude**	
								Local	Local	Local	Local	**Scale**	
								ST	ST	LT	LT	**Duration**	
								Temp	Temp	Perm	Perm	**Permanence**	
								Med	Med	Med	Med	**Certainty**	
	Support the wider coordination of land use, energy planning and transport planning across the Eastern Transport Area and into surrounding regions	0	0	++	0	New hubs would require effective transport planning coordination, land use planning regarding new sites, and can result in economic and social benefits (reduced congestion, enhanced quality of life, aid economic growth).	Design ▪ Consideration of transport needs in relation to land use plans and planning requirements Construction ▪ None identified Operation ▪ None identified	0	0	++	0		
								Characterisation of effects					
								S	S	S	S	**Magnitude**	
								Local	Local	Local	Local	**Scale**	
								ST	ST	LT	LT	**Duration**	
								Temp	Temp	Perm	Perm	**Permanence**	
								Low	Low	Low	Low	**Certainty**	
Social	Improve health and well-being for all citizens and reduce inequalities in health *(HIA specific objective)*	0	-	++	0	There may be some adverse air quality emissions during construction which may impact children and those with respiratory conditions. New infrastructure construction could also potentially have detrimental effects on health and well-being with the chance of accidents during construction. Increased use of public transport and active travel would reduce vehicle use and associated GHG, therefore providing health benefits to all citizens. Access may also be increased to employment opportunities and public services / recreational facilities, promoting greater equality of opportunity for all citizens, as they would provide greater connectivity and accessibility, thus improving overall wellbeing.	Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). Operation ▪ Regular reviews of ticket pricing / consideration of affordability.	0	-	++	0		
								Characterisation of effects					
								S	S	S	S	**Magnitude**	
								Local	Local	Local	Local	**Scale**	
								ST	ST	LT	LT	**Duration**	
								Temp	Temp	Perm	Perm	**Permanence**	
								Low	Low	Low	Low	**Certainty**	
	Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society	0	-	++	0	During construction, there may be an adverse impact to air quality which may particularly impact children, elderly and other vulnerable groups, including those with respiratory conditions. Access may be increased to employment opportunities and public services / recreational facilities, promoting greater equality of opportunity for all citizens, as	Construction ▪ See Air Quality and Climate mitigation Operation ▪ Regular reviews of ticket pricing / consideration of affordability	0	-	++	0		
								Characterisation of effects					
								S	S	S	S	**Magnitude**	
								Local	Local	Local	Local	**Scale**	
								ST	ST	LT	LT	**Duration**	
								Temp	Temp	Perm	Perm	**Permanence**	

	(EqIA specific objective)			they would provide greater connectivity and accessibility. However, affordability of private and public transport will remain a key factor in this scheme being accessible to all.	Low	Low	Low	Low	**Certainty**

E.1.11 Speed limit reduction

Intervention Type	Speed limit reduction					
Location	**Belfast City Centre**	**Metropolitan Area**	**LCCC**	**MEABC**	**ANBC**	**ANDBC**
	✓	✓				
Interventions	CC-01	MA-01 MA-03 MA-25				
Option Description	New 20mph speed limits will be put in replace to reduce vehicle speeds on highways. It is noted that greatest speed limit reductions are achieved when signage is accompanied with wider traffic calming measures.					
Embedded Mitigation	None identified at this stage.					

SEA Topic	**SEA Objective**	**Construction**		**Operational**		**Comment**	**Mitigation**	**Residual Construction**		**Residual Operational**		
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects	
Air Quality	Protect and improve air quality	**N/A**	**N/A**	**+**	**0**	Air quality is likely to improve in discrete areas at a local level due to the reduction in vehicle speed, although this is not expected to be significant.	Design ▪ Identify the potential for schemes that may have a beneficial impact on Air Quality Management Areas Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**+**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Med	Med	**Certainty**
Climate	Reduce carbon dioxide (CO_2) emissions from transport and contribute to meeting net zero carbon targets	**N/A**	**N/A**	**+**	**0**	CO_2 is likely to improve in discrete areas at a local level due to the reduction in vehicle speed, although this is not expected to be significant.	Design ▪ Use of a carbon footprint calculator to assess performance and identify areas for improvement Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**+**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Med	Med	**Certainty**
	Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	**N/A**	**N/A**	**+**	**0**	There is not likely to be increases in impermeable area and therefore flood risk would not be increased.	Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**0**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Med	Med	**Certainty**
Biodiversity	Protect and enhance protected habitats, sites, species, valuable ecological	**N/A**	**N/A**	**+**	**0**	During operation if is there is reduced noise	Construction	**N/A**	**N/A**	**+**	**0**	

	networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain					and vibration due to lower speeds there would be beneficial effects on fauna.	▪ N/A Operation ▪ None identified	**Characterisation of effects**				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Med	Med	**Certainty**
	Protect and enhance sites designated internationally for nature conservation purposes (HRA objective)	**N/A**	**N/A**	**0**	**0**	No effects expected on designated sites due to the nature of the intervention. The HRA Stage 1 Screening identified potential LSE in relation to MA-03. The Appropriate Assessment reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.	Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**0**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Med	Med	**Certainty**
Geodiversity	Protect, enhance and promote geodiversity	**N/A**	**N/A**	**0**	**0**	No effects expected on geodiversity due to the nature of the intervention.	▪ Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**0**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Med	Med	**Certainty**
Historic Environment	Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings	**N/A**	**N/A**	**0**	**0**	No effects expected on the historic environment due to the nature of the intervention.	▪ Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**0**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Med	Med	**Certainty**
Landscape and Visual	Protect and enhance the character and quality of landscapes, townscapes and visual amenity	**N/A**	**N/A**	**0**	**0**	No effects expected on landscape due to the nature of the intervention.	▪ Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**0**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**

								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Med	Med	**Certainty**
Water	Protect and enhance the water environment	**N/A**	**N/A**	**0**	**0**	No effects expected on water due to the nature of the intervention.	▪ Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**0**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Med	Med	**Certainty**
Soil	Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	**N/A**	**N/A**	**0**	**0**	These interventions are unlikely to have an impact on soils or contaminated land.	▪ Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**0**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Med	Med	**Certainty**
Natural Resources	Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated	**N/A**	**N/A**	**0**	**0**	These interventions are unlikely to have an impact on natural resources.	Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**0**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Med	Med	**Certainty**
Economic	Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all	**N/A**	**N/A**	**0**	**-**	If these interventions impact the ability or time needed to access businesses, there may adverse effects.	Construction ▪ N/A Operation ▪ None identified ▪	**N/A**	**N/A**	**0**	**-**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Med	Med	**Certainty**
	Support the wider coordination of land use, energy planning and transport planning across the Eastern Transport Area and into surrounding regions	**N/A**	**N/A**	**+**	**0**	Location of speed reduction measures would require effective land use and transport planning coordination and can result in economic and social benefits (reduced congestion, enhanced quality of life, aid	Design ▪ Consideration of transport needs in relation to land use plans and planning requirements Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**+**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**

						economic growth, facilitating movement of goods and services).		N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Med	Med	**Certainty**
Social	Improve health and well-being for all citizens and reduce inequalities in health *(HIA specific objective)*	**N/A**	**N/A**	**++**	**0**	There will be improved health benefits during operation as a result of safer roads from reduced vehicle speed which may encourage increased physical activity. Slower moving vehicles may also reduce traffic noise which would be beneficial in terms of health and wellbeing.	Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**++**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Med	Med	**Certainty**
	Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society *(EqIA specific objective)*	**N/A**	**N/A**	**++**	**0**	Speed limit reduction will create safer streets particularly for children, elderly, disabled and pregnant women but all groups will benefit, by slowing traffic, reducing vehicle use and air pollution. There may also be reduced severance as a result of busy roads with fast moving cars.	Construction ▪ N/A Operation ▪ None identified	**N/A**	**N/A**	**++**	**0**	
								Characterisation of effects				
								N/A	N/A	S	S	**Magnitude**
								N/A	N/A	Local	Local	**Scale**
								N/A	N/A	LT	LT	**Duration**
								N/A	N/A	Perm	Perm	**Permanence**
								N/A	N/A	Med	Med	**Certainty**

E.1.12 Highways (new highway / junction schemes)

Intervention Type	Highways (new highway / junction schemes)					
Location	**Belfast City Centre**	**Metropolitan Area**	**LCCC**	**MEABC**	**ANBC**	**ANDBC**
	×	✓				
Interventions	N/A	MA-26 MA-27				
Option Description	New highway or junction infrastructure will be introduced where needed to improve connectivity and reduce congestion on alternative routes.					
Embedded Mitigation	None identified at this stage.					

SEA Topic	**SEA Objective**	**Construction**		**Operational**		**Comment**	**Mitigation**	**Residual Construction**		**Residual Operational**		
		Positive Effects	Negative Effects	Positive Effects	Negative Effects			Positive Effects	Negative Effects	Positive Effects	Negative Effects	
Air Quality	Protect and improve air quality	**0**	**--**	**0**	**--**	Construction of new highway or junction infrastructure is likely to result in significant dust, air and noise emissions during construction. Air pollution and noise are also likely to increase during operation of new highways.	Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on air quality, e.g. ensuring all plant and machinery are well maintained and not emitting excessive fumes Operation ▪ Management of vehicle speed	**0**	**--**	**0**	**--**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Climate	Reduce carbon dioxide (CO_2) emissions from transport and contribute to meeting net zero carbon targets	**0**	**--**	**0**	**--**	Construction of new highway or junction infrastructure is likely to result in significant CO_2 emissions during construction. Carbon emissions are also likely to increase during operation of new highways and junctions.	Construction ▪ Consideration of emissions in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on air quality, e.g. ensuring all plant and machinery are well maintained and not emitting excessive fumes Operation ▪ Management of vehicle speed	**0**	**--**	**0**	**--**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
	Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	**0**	**--**	**+**	**--**	New highways and junctions would lead to an increase in impermeable area and therefore contribute to increased flood risk by increasing runoff to nearby watercourses. The route of the new highways may also be	Construction ▪ Consideration of storm water runoff and dewatering operations in Construction Environmental Management Plans (CEMPs). ▪ Use of best practice construction techniques to minimise the impact on	**0**	**--**	**+**	**-**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**

						located within flood zones and therefore would be liable to flooding. It is likely that there would be opportunities to integrate flood protection and alleviation in scheme design leading to some benefits in respect of resilience.	flooding, e.g. use of temporary SuDs features to control site runoff Operation ▪ Use of SuDS (sized to allow for a changing climate)	ST ST LT LT **Duration** **Permanence** **Certainty**
Biodiversity	Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	**0**	**--**	**+**	**-**	New highway or junction infrastructure may lead to direct loss of or encroachment onto habitat or the severance / fragmentation of green infrastructure. Fauna can also be directly lost through road kill. Indirect effects can also be experienced via noise, pollutant deposition etc during construction and operation. Opportunities may exist for BNG during operational phase.	Construction ▪ Consideration of the timing of construction works in relation to ecological windows and legislative requirements ▪ Consideration of biodiversity and designated sites and habitats in Construction Environmental Management Plans (CEMPs) ▪ Appropriate management of invasive species where applicable Operation ▪ None identified	**0** **+** **-** **Characterisation of effects** S S S S **Magnitude** **Scale** ST ST LT LT **Duration** **Permanence** **Certainty**
	Protect and enhance sites designated internationally for nature conservation purposes (HRA objective)	**0**	**--**	**0**	**-**	New infrastructure could lead to direct loss or encroachment on to designated sites. Indirect effects may also be experienced via noise, pollutant deposition etc. The HRA Stage 1 Screening identified potential LSE in relation to MA-26. The HRA Appropriate Assessment, reported that with the mitigation proposed, the ETP will not adversely affect the integrity of the European Sites, alone or in-combination with other plans or projects.	Design ▪ Design to avoid intersection of internationally designated sites where possible Construction ▪ Consideration of the timing of construction works in relation to ecological windows and legislative requirements ▪ Consideration of biodiversity and designated sites and habitats in Construction Environmental Management Plans (CEMPs) ▪ Appropriate management of invasive species where applicable Operation ▪ None identified	**0** - **0** - **Characterisation of effects** S S S S **Magnitude** Local Local Local Local **Scale** ST ST LT LT **Duration** Temp Temp Perm Perm **Permanence** Med Med Med Med **Certainty**
Geodiversity	Protect, enhance and promote geodiversity	**0**	**--**	**0**	**0**	New infrastructure and improvements could lead to direct loss of or encroachment onto	Construction ▪ Consideration of geodiversity and designated sites and	**0** - **0** **0** **Characterisation of effects**

						geodiversity sites and consequent adverse effects during construction.	habitats in Construction Environmental Management Plans (CEMPs) ▪ Consideration of the potential for geodiversity enhancement Operation ▪ None identified	S	S	S	S	**Magnitude**
												Scale
								ST	ST	LT	LT	**Duration**
												Permanence
												Certainty
Historic Environment	Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings	+		0	-	New highway or junction infrastructure may have a detrimental effect on the character and setting of heritage assets. Construction of infrastructure also has the potential for previously unknown heritage features to be disturbed or damaged, although the discovery of such heritage features would be positive. During operation, new infrastructure in proximity to heritage assets may have adverse effects.	Construction ▪ Precautions for unexpected heritage discovery during construction ▪ Potential need for archaeological watching brief during construction, particularly in areas not previously developed ▪ Consideration of unexpected heritage discovery in Construction Environmental Management Plans (CEMPs) ▪ Any activities within close proximity which could cause damage or disturbance to these assets, including parking vehicles should be avoided and be managed via a CEMP. Operation ▪ None identified	**0**	**-**	**0**	**-**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
												Scale
								ST	ST	LT	LT	**Duration**
												Permanence
												Certainty
Landscape and Visual	Protect and enhance the character and quality of landscapes, townscapes and visual amenity	**0**	**---**	**0**	**---**	During both construction and operation new highways and junctions may have a detrimental effect on landscape, depending on their location. Effects are likely to be to a lesser extent if located in already developed, urban areas.	Construction ▪ Use of best practice construction techniques and Construction Environmental Management Plan (CEMP) to ensure that the character and quality of landscapes and townscapes are maintained as far as practicable during construction ▪ Careful route selection, especially in rural areas. Particular protection to nationally designated areas required, with avoidance if possible ▪ Consideration during planning / design to landscaping and screening, with care taken in choice of materials and species used ▪ Opportunities to improve townscape, e.g. through decluttering of signage to be considered during design Operation	**0**		**0**		
								Characterisation of effects				
								S	S	S	S	**Magnitude**
												Scale
								ST	ST	LT	LT	**Duration**
												Permanence
												Certainty

							▪ None identified						
Water	Protect and enhance the water environment	**0**	**--**	**+**	**--**	New highways and junctions would result in an increase in impermeable areas, potentially leading to increased contaminated surface water runoff. Pollution incidents may also occur both during construction and as a result of accidents and tyre wear when operational. Where interventions are located within urbanised lands, therefore there is not likely to be increases in impermeable area (or marginal increases in worst case). In some cases there is potential opportunity for installation of some SuDS features e.g. green rooves, water butts, permeable paving etc. which can control runoff and help address pollution.	Construction ▪ Consideration of water quality and pollution in Construction Environmental Management Plans (CEMPs) ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring Operation ▪ Use of SuDS and / or conventional pollution control techniques such as petrol interceptors	**0**	**-**	**+**	**-**	
								Characterisation of effects					
								S	S	S	S	**Magnitude**	
								Local	Local	Local	Local	**Scale**	
								ST	ST	LT	LT	**Duration**	
								Temp	Temp	Perm	Perm	**Permanence**	
								Med	Med	Med	Med	**Certainty**	
Soil	Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	**0**	**--**	**+**	**0**	New highways and junctions have the potential to disturb best and most versatile agricultural land and soils. There may be an opportunity for schemes to remediate contaminated land or re-use previously developed land.	Construction ▪ Remediation of land contamination if in existence ▪ Consideration of soil quality and pollution in Construction Environmental Management Plans (CEMPs) ▪ Use of best practice construction techniques to minimise the likelihood of a pollution incident occurring ▪ Use of SuDS and / or conventional pollution control techniques such as petrol interceptors to prevent soil pollution Operation ▪ None identified	**0**	**--**	**+**	**0**	
								Characterisation of effects					
								S	S	S	S	**Magnitude**	
								Local	Local	Local	Local	**Scale**	
								ST	ST	LT	LT	**Duration**	
								Temp	Temp	Perm	Perm	**Permanence**	
								Med	Med	Med	Med	**Certainty**	
Natural Resources	Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce	**0**	**---**	**0**	**0**	Construction of these interventions would result in a requirement for additional resources and increased waste production. There may	Construction ▪ Consideration of waste hierarchy and use of recycled or re-used materials in a Site	**0**	**--**	**0**	**0**		
								Characterisation of effects					
								S	S	S	S	**Magnitude**	

	the level of waste generated					be opportunities for the use of recycled materials during construction.	Waste Management Plan (SWMP) Operation ▪ Encourage the use of electric vehicles ▪ Consideration of waste hierarchy and use of recycled or re-used materials.					**Scale**
								ST	ST	LT	LT	**Duration**
												Permanence
												Certainty
Economic	Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all		**0**	**+++**	**0**	The construction of new highways and junctions will provide employment opportunities. The schemes may also improve accessibility and connectivity to jobs and skills, through new links and potentially reduced congestion.	Construction ▪ Provide employment opportunities to unskilled / apprentices at construction stage Operation ▪ Implement a plan of maintenance and improvement to ensure that the connectivity to commercial / economic centres is maintained		**0**	**+++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
												Scale
								ST	ST	LT	LT	**Duration**
												Permanence
												Certainty
	Support the wider coordination of land use, energy planning and transport planning across the Eastern Transport Area and into surrounding regions	**0**	**0**	**++**	**0**	New roads would potentially allow the 'opening up' of development lands as well as increase access to new growth hubs. This would require effective land use and transport planning coordination.	Design ▪ Consideration of transport needs in relation to land use plans and planning requirements Construction ▪ None identified Operation ▪ None identified	**0**	**0**	**++**	**0**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**
Social	Improve health and well-being for all citizens and reduce inequalities in health *(HIA specific objective)*	**0**	**-**	**++**	**-**	There may be some adverse air quality emissions during construction which may impact children and those with respiratory conditions. New road schemes will primarily benefit those in ownership of cars, though some benefit will likely be experienced by bus passengers and users of taxis. Access may also be increased to employment opportunities and public services / recreational facilities, as well as unlocking land development potential. Depending on the nature of the highway there may be opportunity for	Construction ▪ Consideration of air quality in Construction Environmental Management Plans (CEMPs). Operation ▪ Implement a plan of maintenance and improvement to ensure that footpaths and cycle lanes remain an attractive option	**0**	**-**	**++**	**-**	
								Characterisation of effects				
								S	S	S	S	**Magnitude**
								Local	Local	Local	Local	**Scale**
								ST	ST	LT	LT	**Duration**
								Temp	Temp	Perm	Perm	**Permanence**
								Med	Med	Med	Med	**Certainty**

					enhancing pedestrian / cycle links through footpaths & cycle lanes. Interventions would typically promote greater equality of opportunity for all citizens, as they would provide better journey times thus improving overall wellbeing. New highway and junction infrastructure improvements could potentially have detrimental effects on health and well-being with the chance of accidents during construction and maintenance.						
Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society *(EqIA specific objective)*	**0**	**0**	**+**	**-**	New road schemes will primarily benefit those in ownership of cars, though some benefit will likely be experienced by bus passengers and users of taxis. Access may also be increased to employment opportunities and public services / recreational facilities, as well as unlocking land development potential. Depending on the nature of the highway there may be opportunity for enhancing pedestrian / cycle links through footpaths & cycle lanes. Interventions will increase accessibility to employment and recreational opportunities, as well as public services. Interventions may promote greater equality of opportunity for all citizens, as they would provide better journey times. However, affordability of private transport will remain a	Construction ▪ None identified Operation ▪ Implement a plan of maintenance and improvement to ensure that footpaths and cycle lanes remain an attractive option	**0**	**0**	**+**	**-**	
							Characterisation of effects				
							S	S	S	S	**Magnitude**
							Local	Local	Local	Local	**Scale**
							ST	ST	LT	LT	**Duration**
							Temp	Temp	Perm	Perm	**Permanence**
							Med	Med	Med	Med	**Certainty**

		key factor in this intervention being accessible to all.		

E.2 HIA, EQIA and Rural Needs Assessment Tables

E.2.1 Bus and BRT Upgrades

Intervention types grouped to include:

- Introduction of new or extended bus lanes
- Updated bus or BRT timetables / routeings
- Introduction of new BRT services

E.2.1.1 Health Impact Assessment Table

HIA sub-objective		Scale of Effect								Description of effect/Recommendations for mitigation or enhancement
		Children and adolescents	Older people	Disabled/ other health problems	Low-income groups	Cyclists, pedestrians commuters	Residents	Employees	**Assessment summary**	
1	Improve accessibility to employment, educational, health and leisure services and facilities and amenities for all	++	+	+	++	++	++	++	++	Improvements to the bus and BRT network with increased service and coverage is anticipated to reduce congestion and improve access to employment, educational, health and leisure services and facilities and amenities. All groups would benefit. Benefits may not be as significant for older people or those with certain health problems who may not be able to utilise bus and BRT services as a mode of transport and may still be reliant on private vehicles. **Recommendation: Ensure public transport provision enhances accessibility for those who have mobility issues.**

HIA sub-objective		Scale of Effect								Description of effect/Recommendations for mitigation or enhancement
		Children and adolescents	Older people	Disabled/ other health problems	Low-income groups	Cyclists, pedestrians commuters	Residents	Employees	**Assessment summary**	
										Recommendation: Consideration to be given to provision of toilet facilities to cater for elderly travellers or those with certain disabilities.
2	Improve affordability of transport	+	+	+	+	+	+	+	+	Improvements to the bus and BRT network and increased service and coverage should allow people to make the most efficient journey possible, likely reducing costs. Increased network efficiency, e.g. by removing congestion, will result in less wasted fuel and thereby reduce overall journey cost. However, price of bus and BRT tickets remains a key factor in affordability of transport and those on low incomes may be particularly vulnerable.
3	Improve safety of the transport network (including roads) and reduce the number of accidents and other incidents	++	+	+	++	++	++	++	++	It is anticipated these interventions will lead to reduced congestion and a more efficient bus and BRT network. This would likely reduce the potential for accidents and will reduce stress in the travelling population – potentially reducing conflict among travellers. Groups such as the elderly and disabled may not be able to avail of bus and BRT services to as great an extent as other groups.
4	Reduce severance	+	+	+	+	+	+	+	+	Reduced congestion will lead to reduced severance. In addition, connections will be enhanced through increased bus and BRT service and coverage, with benefits for all groups.

HIA sub-objective		Scale of Effect								Description of effect/Recommendations for mitigation or enhancement
		Children and adolescents	Older people	Disabled/ other health problems	Low-income groups	Cyclists, pedestrians commuters	Residents	Employees	**Assessment summary**	
5	Improve connections between and within communities	++	++	++	++	++	++	++	++	Connections between and within communities will be enhanced by the improved bus and BRT network and increased service and coverage, with benefits for all groups.
6	Reduce air, noise, odour and light pollution from transport	++	+	++	+	+	+	+	+	It is considered these interventions will encourage public transport usage and reduce reliance on private vehicles, likely reducing air, noise and light pollution. Benefits would be most experienced at a local level, across all groups. Improved air quality would particularly benefit children and those with certain health issues.
7	Improve access to active travel modes	+	+	+	+	+	+	+	+	Whilst not directly providing access to active travel modes, the improvements to and provision of bus and BRT services may indirectly provide better connectivity and therefore access to active transport facilities / routes. All groups would benefit.
8	Improve access to public transport	+++	+++	+++	+++	+++	+++	+++	+++	Improvements to the bus and BRT network and increased service and coverage will improve access to public transport. All groups would benefit.
9	Improve actual and perceived safety and security issues	+	+	+	+	+	+	+	+	The interventions will make it safer and easier to access bus and BRT services and the expanded bus lanes and high-quality BRT halts will build confidence in using the transport network. Some groups may experience anxiety / perception of risk about public transport travel at particular times e.g. those from an ethnic background or young people / older people using late or early morning services. It

HIA sub-objective		Scale of Effect								Description of effect/Recommendations for mitigation or enhancement
		Children and adolescents	Older people	Disabled/ other health problems	Low-income groups	Cyclists, pedestrians commuters	Residents	Employees	**Assessment summary**	
										is worth noting that feelings of safety can be affected by the poor condition of public transport vehicles where these are dirty, littered or vandalised, as can poor behaviour of passengers and staff. Greater utilisation of vehicles could reduce opportunities to undertake cleaning and maintenance.

E.2.1.2 Equalities Impact Assessment Table

EqIA sub-objective		Scale of Effect									Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
1	Improve accessibility to services, facilities and amenities for all, in particular by active travel modes	+	++	+	+	++	++	+	++	++	Improvements to the bus network and increased service and coverage will reduce congestion and improve access to employment, educational, health and leisure services, facilities and amenities. Benefits may not be as significant for older people or those with certain health problems who may not be able to utilise bus services as a mode of transport and may continue to rely on private vehicles. Additionally, while public transport services are increasing, some groups may have decreased ability to cope with timetable and route changes, such as those with learning difficulties, some Ethnic groups where English may not be their first language and those with sight or hearing issues. **Recommendation: Ensure public transport provision enhances accessibility for those who have mobility issues.**

EqIA sub-objective		Scale of Effect									Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
											Recommendation: Consideration to be given to provision of toilet facilities to cater for elderly travellers or those with certain disabilities.
2	Improve affordability of transport	0	+	0	0	+	+	+	+	+	Improvements to the bus network and increased service and coverage should allow people to make the most efficient journey possible, likely reducing costs. Increased network efficiency e.g. by removing congestion will result in less wasted fuel and thereby reduce overall journey cost. However, price of bus tickets remains a key factor in affordability of transport, particularly for certain groups such as young people, individuals with disabilities who may rely on benefits, or those from some ethnic communities who may face limited job opportunities or are more likely to be employed in lower-paying positions. It is also the case that the young children / adolescents can find different fare regimes confusing.
3	Improve safety of the transport network (including roads) and reduce the number of accidents and other incidents	+	++	+	++	++	++	+	++	++	It is anticipated these interventions will lead to reduced congestion and a more efficient bus network. This would likely reduce the potential for accidents and will reduce stress in the travelling population – potentially reducing conflict among travellers. Groups such as the elderly and disabled may not be able to avail of bus services to as great an extent as other groups. It is worth noting that some people from ethnic groups, females, young people,

EqIA sub-objective		Scale of Effect									Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
											the elderly, those of different sexual orientation or gender reassignment may have perceptions of being more vulnerable on public transport.
4	Improve provision of public transport in rural areas, coastal communities, or to those areas experiencing constraint in public transport provision	+	+	+	+	+	+	+	+	+	As these interventions are concentrated in the City Centre area there is unlikely to be significant improvements to access in rural or coastal communities.
5	Reduce severance	+/-	+/-	+	+/-	+/-	+	+	+	+	Reduced congestion will lead to reduced severance. In addition, connections will be enhanced through increased bus service and coverage. All groups should benefit. However, re-routing and timetabling changes could affect early or late services, potentially disadvantaging groups such as women and ethnic minorities, who are more likely to work shifts and may struggle to commute to and from work on time. Similarly, timetable adjustments could impact individuals of faith attending religious services, as well as children needing reliable transportation to and from school.
6	Reduce air, noise, odour and light pollution from transport	++	+	+	+	+	+	+	+	+	It is considered these interventions will encourage public transport usage and reduce reliance on private vehicles, likely reducing air, noise and light pollution. Benefits would be most experienced at a local level across all

EqIA sub-objective		Scale of Effect									Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
											groups. Improved air quality would particularly benefit children.

E.2.1.3 Rural Proofing Assessment Table

Rural Needs sub-objective		Scale of Effect										Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Those with low income or no access to private vehicle	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
1	Increase access via a range of transport modes for rural communities.	0	0	0	0	0	0	0	0	0	0	As these interventions are concentrated in the City Centre area there is unlikely to be significant improvements to access in rural communities.
2	Enable economic growth, and employment diversification in rural areas.	0	0	0	0	0	0	0	0	0	0	As these interventions are concentrated in the City Centre area there is unlikely to be significant improvements to growth and employment in rural communities.
3	Connecting people with nature	+	+	+	+	+	+	+	+	+	+	Improvements to the bus network will improve connections and may enable greater access to greenspace and areas of nature, with benefits for all groups.

E.2.2 Cycling & Walking and Wheeling

Interventions types grouped to include:

- Increased priority for walking and wheeling
- Upgrades to footpaths and crossings
- Introduction of new or extended cycle lanes
- Introduction of new or extended traffic-free routes

E.2.2.1 Health Impact Assessment Table

HIA sub-objective		Scale of Effect								Description of effect/Recommendations for mitigation or enhancement
		Children and adolescents	Older people	Disabled/ other health problems	Low-income groups	Cyclists, pedestrians, commuters	Residents	Employees	Assessment summary	
1	Improve accessibility to employment, educational, health and leisure services and facilities and amenities for all	++	+	+	++	++	++	++	++	Increased opportunity and priority to walk and wheel will result in much greater access to this mode of active travel, which would improve access to employment, health, leisure services and facilities and will be of benefit to all groups. The interventions will allow more active travel for most members of society but benefits may not be as significant for older people or those with health issues or disabilities who may not be able to utilise cycling or walking as a mode of transport.
2	Improve affordability of transport	++	++	++	++	+++	+++	+++	++	While the interventions would have no direct effect on affordability, they will allow easier access to public transport for those with no access to a private car. Greater active travel provision will allow more journeys to a greater variety of destinations to be made by low / zero cost modes, with benefits for those on lower incomes. It should be noted though

HIA sub-objective		Scale of Effect								Description of effect/Recommendations for mitigation or enhancement
		Children and adolescents	Older people	Disabled/ other health problems	Low-income groups	Cyclists, pedestrians, commuters	Residents	Employees	**Assessment summary**	
										that not all may be able to afford the purchase of bicycles or scooters.
3	Improve safety of the transport network (including roads) and reduce the number of accidents and other incidents	++	+	+	++	+++	++	++	++	Provision of segregated active travel routes with good design standards etc., as well as a reduction in travel by other modes, will enhance safety and reduce the number of accidents. This will be of particular benefit to pedestrians and cyclists, though there remains a risk for some groups such as children, the elderly and those visually or hearing impaired who could be at risk from collision with cyclists and scooters. Groups such as the elderly and disabled may not be able to avail of active travels to as great an extent as other groups.
4	Reduce severance	+	+	+	+	+	+	+	+	Severance may be reduced for all groups through a greater priority given to cycling, walking and wheeling and a reduction in travel by other modes.
5	Improve connections between and within communities	++	+	+	++	+++	++	++	++	Connections between and within communities will be improved by new and improved active travel routes. All groups would benefit, though may not all be able to avail of these connections to the same degree.
6	Reduce air, noise, odour and light pollution from transport	++	++	++	++	++	++	++	++	Air and noise pollution will be reduced through reduced car use expected due to the greater opportunity to cycle, walk and wheel. Benefits would be most experienced at a local level, though all groups would benefit. Children and individuals with certain health conditions, who are especially

HIA sub-objective		Scale of Effect								Description of effect/Recommendations for mitigation or enhancement
		Children and adolescents	Older people	Disabled/ other health problems	Low-income groups	Cyclists, pedestrians, commuters	Residents	Employees	**Assessment summary**	
										vulnerable to poor air quality, stand to benefit significantly from these reductions. Furthermore, noise pollution can cause stress and negatively impact overall wellbeing for many individuals, irrespective of their demographic group, making noise reductions highly valuable.
7	Improve access to active travel modes	++	+	+	++	+++	++	++	++	Providing new and improving existing cycle and walking and wheeling infrastructure and reallocating roadspace will improve access to active travel. This will help to tackle issues such as inactivity, obesity and improving stress levels. All groups will benefit, though not all (e.g. elderly, those with certain disabilities) will be able to avail to the same degree and for some, access to private vehicles may still be required.
8	Improve access to public transport	+	+	+	+	+	+	+	+	Whilst not directly providing access to public transport the new and improved cycle links may indirectly provide better connectivity and therefore access to public transport. **Recommendation: Ensure increased provision for bicycles, scooters and other mobility devices on public transport.**
9	Improve actual and perceived safety and security issues	++	++	++	++	++	++	++	++	Provision of cycle and walking and wheeling infrastructure allows the opportunity to include features such as lighting will provide a safer environment for active travel and reduce the risks

HIA sub-objective		Scale of Effect								Description of effect/Recommendations for mitigation or enhancement
		Children and adolescents	Older people	Disabled/ other health problems	Low-income groups	Cyclists, pedestrians, commuters	Residents	Employees	**Assessment summary**	
										associated with cycling on roads alongside vehicles.

E.2.2.2 Equalities Impact Assessment Table

EqIA sub-objective		Scale of Effect									Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
1	Improve accessibility to services, facilities and amenities for all, in particular by active travel modes	+	++	+	++	++	++	+	++	++	Increased opportunity and priority to walk and wheel and improved cycle links will result in much greater access to active travel, which would improve access to employment, health, leisure services and facilities and will be of benefit to all groups. The interventions will allow more active travel for most members of society but benefits may not be as significant for older people, the disabled / those with certain impairments or those who are pregnant (particularly those in later stages of pregnancy) who may not be able to utilise cycling or walking as a mode of transport.
2	Improve affordability of transport	++	++	++	++	++	++	++	++	++	While the interventions would have no direct effect on affordability, they will allow easier access to public transport for those with no access to a private car. Greater active travel provision will also allow more journeys to be made by low / zero cost modes, though of course not all may be able to afford the purchase of bicycles or scooters.

EqIA sub-objective		Scale of Effect									Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
3	Improve safety of the transport network (including roads) and reduce the number of accidents and other incidents	+	++	+	++	++	++	+	++	++	Provision of segregated active travel routes with good design standards etc., as well as a reduction in travel by other modes, will enhance safety and reduce the number of accidents. Groups such as the elderly, disabled or those pregnant (particularly those in later stages of pregnancy) may not be able to avail of active travels to as great an extent as other groups.
4	Improve provision of public transport in rural areas, coastal communities, or to those areas experiencing constraint in public transport provision	+	+	+	+	+	+	+	+	+	As these interventions are concentrated in the City Centre area there is unlikely to be significant improvements to access for rural or coastal communities.
5	Reduce severance	+	+	+	+	+	+	+	+	+	Severance may be reduced for all groups through a greater priority given to cycling and walking.
6	Reduce air, noise, odour and light pollution from transport	++	++	++	++	++	++	++	++	++	Air and Noise pollution will be reduced through reduced congestion and car use expected due to the greater opportunity to walk, wheel and cycle. Benefits would be most experienced at a local level, although all groups would benefit.

E.2.2.3 Rural Proofing Assessment Table

Rural Needs sub-objective		Scale of Effect										Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Those with low income or no access to private vehicle	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
1	Increase access via a range of transport modes for rural communities.	0	0	0	0	0	0	0	0	0	0	As these interventions are concentrated in the City Centre area there is unlikely to be significant improvements to access in rural communities.
2	Enable economic growth, and employment diversification in rural areas.	0	0	0	0	0	0	0	0	0	0	As these interventions are concentrated in the City Centre area there is unlikely to be significant improvements to growth and employment in rural communities.
3	Connecting people with nature	+	+	+	+	+	+	+	+	+	+	Improvements to cycling, walking and wheeling links will improve connections and may enable greater access to greenspace and areas of nature, for example via Ormeau embankment extension.

E.2.3 Speed limit reduction

E.2.3.1 Health Impact Assessment Table

HIA sub-objective		Scale of Effect								Description of effect/Recommendations for mitigation or enhancement
		Children and adolescents	Older people	Disabled/ other health problems	Low-income groups	Cyclists, pedestrians commuters	Residents	Employees	**Assessment summary**	
1	Improve accessibility to employment, educational, health and leisure services and facilities and amenities for all	++	+	+	++	++	++	++	++	Speed limit reduction of highways will help make journeys easier, particularly for pedestrians, improving access to services by ensuring all users have increased perceptions of safety when using the transport network. Reduced vehicle speed may encourage increased active travel, providing a sustainable and free/low-cost transport mode to access employment, health, leisure services and facilities. This will be of benefit to all groups but may not be as significant for older people or those with certain health problems who may not be able to utilise walking or cycling as a mode of transport.
2	Improve affordability of transport	0	0	0	0	0	0	0	0	No effect identified.
3	Improve safety of the transport network (including roads) and reduce the number of accidents and other incidents	++	++	++	++	+++	+	+	++	Speed limit reduction will create safer streets particularly for pedestrians and cyclists, children, elderly, disabled and pregnant women but all groups will benefit, by slowing traffic, reducing vehicle use and air pollution.
4	Reduce severance	+	+	+	+	+	+	+	+	Severance as a result of busy roads with fast moving cars may be reduced for all groups through

HIA sub-objective		Scale of Effect								Description of effect/Recommendations for mitigation or enhancement
		Children and adolescents	Older people	Disabled/ other health problems	Low-income groups	Cyclists, pedestrians commuters	Residents	Employees	**Assessment summary**	
										speed limit reductions and an improved perception of safety for people using the transport system.
5	Improve connections between and within communities	+	+	+	+	+	+	+	+	Connections between and within communities may be improved with safer streets encouraging walking and cycling, with benefits for all groups.
6	Reduce air, noise, odour and light pollution from transport	+++	++	+++	+++	++	++	++	++	Air and noise pollution will be reduced through reduced car use expected due to speed limit reductions causing a decrease in vehicle emissions and lowering noise levels from traffic. Benefits would be most experienced at a local level, though all groups would benefit. Children and individuals with certain health conditions, who are especially vulnerable to poor air quality, stand to benefit significantly from these reductions. People in deprived communities tend to experience poorer air quality as a result of transport related air pollution and to suffer the health impacts of it, so any improvements would benefit them as well. Furthermore, noise pollution can cause stress and negatively impact overall wellbeing for many individuals, irrespective of their demographic group, making noise reductions highly valuable.
7	Improve access to active travel modes	++	+	+	++	+++	++	++	++	Reduced speed limits will create safer streets, improving access to active travel modes. All groups will benefit, though not all (e.g. elderly, those with certain disabilities) will be able to avail to the same

HIA sub-objective		Scale of Effect								Description of effect/Recommendations for mitigation or enhancement
		Children and adolescents	Older people	Disabled/ other health problems	Low-income groups	Cyclists, pedestrians commuters	Residents	Employees	**Assessment summary**	
										degree and for some, access to private vehicles may still be required.
8	Improve access to public transport	0	0	0	0	0	0	0	0	No effect identified.
9	Improve actual and perceived safety and security issues	++	++	++	++	+++	++	++	++	Speed limit reduction of highways will create safer streets particularly for vulnerable groups including children, elderly, disabled and women but all groups will benefit, by decreasing the likelihood and severity of accidents, making streets feel safer for pedestrians and cyclists and potentially reducing crime rates due to increased visibility and slower traffic.

E.2.3.2 Equalities Impact Assessment Table

EqIA sub-objective		Scale of Effect									Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
1	Improve accessibility to services, facilities and amenities for all, in particular by active travel modes	+	++	+	++	++	++	+	++	++	Speed limit reduction of highways will help make journeys easier, particularly for pedestrians, improving access to services by ensuring all users have increased perceptions of safety when using the transport network. Reduced vehicle speed may encourage increased active travel, providing a sustainable and free/low-cost transport mode to access employment, health, leisure services and facilities. This will be of benefit to all groups but may not be as significant for older people or those with certain health problems who may not be able to utilise walking or cycling as a mode of transport.
2	Improve affordability of transport	0	0	0	0	0	0	0	0	0	No effect identified.
3	Improve safety of the transport network (including roads) and reduce the number of accidents and other incidents	++	++	++	+	+	+	++	+	++	Speed limit reduction will create safer streets particularly for pedestrians and cyclists, children, elderly, disabled and pregnant women but all groups will benefit, by slowing traffic, reducing vehicle use and air pollution.
4	Improve provision of public transport in rural areas, coastal communities, or to those areas experiencing	0	0	0	0	0	0	0	0	0	As these interventions are concentrated in the City Centre area there is unlikely to be significant improvements to access in rural or coastal communities.

EqIA sub-objective		Scale of Effect									Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
	constraint in public transport provision										
5	Reduce severance	+	+	+	+	+	+	+	+	+	Severance as a result of busy roads with fast moving cars may be reduced for all groups through speed limit reductions and an improved perception of safety for people using the transport system.
6	Reduce air, noise, odour and light pollution from transport	+++	++	+++	++	++	++	++	++	++	Air and noise pollution will be reduced through reduced car use expected due to speed limit reductions causing a decrease in vehicle emissions and lowering noise levels from traffic. Benefits would be most experienced at a local level. All groups would benefit but particularly children, elderly and individuals with certain health conditions, who are especially vulnerable to poor air quality.

E.2.3.3 Rural Proofing Assessment Table

Rural Needs sub-objective		Scale of Effect										Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Those with low income or no access to private vehicle	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
1	Increase access via a range of transport modes for rural communities.	0	0	0	0	0	0	0	0	0	0	As these interventions are concentrated in the City Centre area there is unlikely to be significant improvements to access in rural communities.
2	Enable economic growth, and employment diversification in rural areas.	0	0	0	0	0	0	0	0	0	0	As these interventions are concentrated in the City Centre area there is unlikely to be significant improvements to growth and employment in rural communities.
3	Connecting people with nature	+	+	+	+	+	+	+	+	+	+	Safer streets through speed limit reductions may improve connections and enable greater access to greenspace and areas of nature.

E.2.4 Highways (new highway / junction schemes)

E.2.4.1 Health Impact Assessment Table

HIA sub-objective		Scale of Effect								Description of effect/Recommendations for mitigation or enhancement
		Children and adolescents	Older people	Disabled/ other health problems	Low-income groups	Cyclists, pedestrians, commuters	Residents	Employees	**Assessment summary**	
1	Improve accessibility to employment, educational, health and leisure services and facilities and amenities for all	++	++	++	++	++	++	++	++	The creation of new roads is anticipated to reduce congestion and make the network more efficient, improving accessibility to employment, educational, health and leisure services and facilities and amenities. While all groups would benefit, it is anticipated this will primarily benefit those in ownership of cars, though some benefit will likely be experienced by bus passengers and users of taxis.
2	Improve affordability of transport	+	+	+	+	+	+	+	+	Improvements to the road network should allow people to make the most efficient journey possible, likely reducing costs. Increased network efficiency e.g. by reducing congestion will result in less wasted fuel and thereby reduce overall journey cost. However, affordability of private transport will remain a key factor in this intervention being accessible to all.
3	Improve safety of the transport network (including roads) and reduce the number of accidents and other incidents	+	+	+	+	+	+	+	+	It is anticipated that new roads will lead to reduced overall congestion and a more efficient and seamless transport network. This would likely reduce the potential for accidents and will reduce stress in the travelling population – potentially reducing conflict among travellers. However, opportunities for safety enhancements and active

HIA sub-objective		Scale of Effect								Description of effect/Recommendations for mitigation or enhancement
		Children and adolescents	Older people	Disabled/ other health problems	Low-income groups	Cyclists, pedestrians, commuters	Residents	Employees	**Assessment summary**	
										travel infrastructure should be prioritised to improve safety. This will be of particular importance to more vulnerable groups such as pedestrians, the elderly, those with disabilities and children.
4	Reduce severance	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	Severance may be increased by the construction or expansion of new or existing roads, but it may also be reduced by reducing congestion and making the network more efficient. Effects are considered slight beneficial and slight adverse for all groups.
5	Improve connections between and within communities	+	+	+	+	+	+	+	+	Connections between and within communities will be improved through new roads and reduced congestion, benefitting all groups.
6	Reduce air, noise, odour and light pollution from transport	--	--	--	--	--	--	--	--	Air, noise and light pollution are likely to increase with construction of new highways, although may also be reduced by reducing congestion and making the network more efficient. Effects would be most experienced at a local level across all groups. Note that groups such as young children, those with low income (living in more deprived areas) and those with certain health conditions could be disproportionately impacted.
7	Improve access to active travel modes	+	+	+	+	+	+	+	+	Whilst not directly providing access to active travel modes, the new highways may indirectly provide better connectivity and therefore access to active transport facilities. Diversion of traffic onto new

HIA sub-objective		Scale of Effect								Description of effect/Recommendations for mitigation or enhancement
		Children and adolescents	Older people	Disabled/ other health problems	Low-income groups	Cyclists, pedestrians, commuters	Residents	Employees	**Assessment summary**	
										routes may also allow for increased opportunities for active travel on other existing routes. Depending on the nature of the highway there may be opportunity for enhancing pedestrian / cycle links through footpaths & cycle lanes.
8	Improve access to public transport	+	+	+	+	+	+	+	+	Whilst not directly providing access to public transport the provision of new highways may indirectly provide better connectivity and therefore access to public transport.
9	Improve actual and perceived safety and security issues	+	+	+	+	+	+	+	+	Provision of new highways provide an opportunity to include features such as improved lighting which will provide for a safer environment for travel.

E.2.4.2 Equalities Impact Assessment Table

EqIA sub-objective		Scale of Effect									Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
1	Improve accessibility to services, facilities and amenities for all, in particular by active travel modes	++	++	++	++	++	++	++	++	++	The creation of new roads is anticipated to reduce congestion and make the network more efficient, improving accessibility to services, facilities and amenities. While all groups will benefit, it is anticipated that this will primarily benefit those in ownership of cars, though some benefit will likely be experienced by bus passengers and users of taxis. Depending on the nature of the highway there may be opportunity for enhancing pedestrian / cycle links through footpaths & cycle lanes.
2	Improve affordability of transport	+	+	+	+	+	+	+	+	+	Improvements to the road network should allow people to make the most efficient journey possible, likely reducing costs. Increased network efficiency e.g. by removing congestion will result in less wasted fuel and thereby reduce overall journey cost. However, affordability of private transport will remain a key factor in this intervention being accessible to all, particularly for certain groups such as young people, individuals with disabilities who may rely on benefits, or those from some

EqIA sub-objective		Scale of Effect									Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
											ethnic communities who may face limited job opportunities or are more likely to be employed in lower-paying positions.
3	Improve safety of the transport network (including roads) and reduce the number of accidents and other incidents	+/-	+	+	+	+	+	+	+	+	It is anticipated that new roads will lead to reduced overall congestion and a more efficient and seamless transport network. All would also be designed to the latest standards. This would likely reduce the potential for accidents and will reduce stress in the travelling population – potentially reducing conflict among travellers. However, opportunities for safety enhancements and active travel infrastructure should be prioritised to improve safety. This will be of particular importance to more vulnerable groups such as the elderly, those with disabilities and children. Note that new routes (including diversions required during construction) can induce feelings of stress, as well as increased risk of accidents due to driver uncertainty. Inexperienced / young drivers, as well as older drivers could be disproportionately affected. Locations near schools, churches and similar, where older or younger age groups are more typical, could be subject to greater risk of accident.

EqIA sub-objective		Scale of Effect									Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
4	Improve provision of public transport in rural areas, coastal communities, or to those areas experiencing constraint in public transport provision	0	0	0	0	0	0	0	0	0	As these interventions are concentrated in the City Centre area there is unlikely to be significant improvements to access in rural or coastal communities.
5	Reduce severance	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	Severance may be increased by the construction or expansion of new or existing roads, but it may also be reduced by reducing congestion and making the network more efficient. Effects are considered slight beneficial and slight adverse for all groups.
6	Reduce air, noise, odour and light pollution from transport	--	--	--	--	--	--	--	--	--	Air, noise and light pollution are likely to increase with the construction of new highways, although may also be reduced by reducing congestion and making the network more efficient. Effects would be most experienced at a local level, with particular negative implications for the young, the elderly, those with certain health conditions and potentially those from ethnic backgrounds who are more likely to live in poorer housing in deprived areas (which typically have worse air quality).

E.2.4.3 Rural Proofing Assessment Table

Rural Needs sub-objective		Scale of Effect										Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Those with low income or no access to private vehicle	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
1	Increase access via a range of transport modes for rural communities.	0	0	0	0	0	0	0	0	0	0	As these interventions are concentrated in the City Centre area there is unlikely to be significant improvements to access in rural communities.
2	Enable economic growth, and employment diversification in rural areas.	0	0	0	0	0	0	0	0	0	0	As these interventions are concentrated in the City Centre area there is unlikely to be significant improvements to growth and employment in rural communities.
3	Connecting people with nature	+	+	+	+	+	+	+	+	+	+	Provision of new highways will improve connections and may enable greater access to greenspace and areas of nature, with benefits for all groups.

E.2.5 Park and Ride & Travel Hubs

Intervention types grouped to include:

- Park and ride
- New travel hubs

E.2.5.1 Health Impact Assessment Table

HIA sub-objective		Scale of Effect								Description of effect/Recommendations for mitigation or enhancement
		Children and adolescents	Older people	Disabled/ other health problems	Low-income groups	Cyclists, pedestrians, commuters	Residents	Employees	**Assessment summary**	
1	Improve accessibility to employment, educational, health and leisure services and facilities and amenities for all	++	+	+	++	++	++	++	++	An upgraded P&R network and new travel hubs will result in greater access to different transport modes including public transport, walking and cycling, which would improve access to employment, health, leisure services and facilities and will be of benefit to all groups. Benefits may not be as significant for older people or those with health problems who may not be able to utilise bus services, walking or cycling as modes of transport.
2	Improve affordability of transport	+	+	+	+	+	+	+	+	An upgraded P&R network and new travel hubs will result in increased access to affordable transport modes and allow more journeys to be made by low / zero cost modes. However, affordability of private and public transport will remain a key factor in this scheme

HIA sub-objective		Scale of Effect								Description of effect/Recommendations for mitigation or enhancement
		Children and adolescents	Older people	Disabled/ other health problems	Low-income groups	Cyclists, pedestrians, commuters	Residents	Employees	**Assessment summary**	
										being accessible to all and those on low incomes may be particularly vulnerable.
3	Improve safety of the transport network (including roads) and reduce the number of accidents and other incidents	++	+	+	++	++	++	++	++	It is anticipated these interventions will lead to reduced congestion and a more efficient P&R and active travel network. This would likely reduce the potential for accidents and will reduce stress in the travelling population – potentially reducing conflict among travellers. Groups such as the elderly, disabled and those heavily pregnant may not be able to avail of active travel and bus services to as great an extent as other groups.
4	Reduce severance	++	+	+	++	++	++	++	++	Reduced congestion will lead to reduced severance. In addition, connections will be enhanced through increased P&R sites and travel hubs, with benefits for all groups. Benefits may not be as significant for older people or those with certain health problems who may not be able to utilise bus services, walking or cycling as modes of transport.
5	Improve connections between and within communities	++	++	++	++	++	++	++	++	Connections between and within communities will be enhanced by the improved public transport and active travel facilities, with benefits for all groups.
6	Reduce air, noise, odour and light pollution from transport	+	+	+	+	+	+	+	+	It is considered these interventions will encourage public transport and active travel usage and reduce reliance on private vehicles in the city, likely reducing air, noise and light pollution. Benefits

HIA sub-objective		Scale of Effect								Description of effect/Recommendations for mitigation or enhancement
		Children and adolescents	Older people	Disabled/ other health problems	Low-income groups	Cyclists, pedestrians, commuters	Residents	Employees	**Assessment summary**	
										would be most experienced at a local level across all groups. Improved air quality would particularly benefit children and those with certain health issues. However, new P&R sites and travel hubs may result in increased pollution at the sites, particularly affecting vulnerable groups, such as children and those with certain health issues, living in close proximity.
7	Improve access to active travel modes	++	++	++	++	++	++	++	++	Provision of walking and cycling facilities at the new travel hubs will improve access to active travel modes. All groups would benefit.
8	Improve access to public transport	++	++	++	++	++	++	++	++	Provision of new P&R sites and travel hubs will improve access to public transport. All groups would benefit.
9	Improve actual and perceived safety and security issues	++	++	++	++	++	++	++	++	Provision of P&R sites and travel hubs can enhance actual and perceived safety and security by reducing road congestion and traffic-related risks, fostering safer environments for all users. Features such as well-lit areas, CCTV, clear signage, and secure infrastructure would improve physical safety and provide a greater sense of security, particularly for vulnerable groups like children and disabled individuals.

E.2.5.2 Equalities Impact Assessment Table

EqIA sub-objective		Scale of Effect									Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
1	Improve accessibility to services, facilities and amenities for all, in particular by active travel modes	+	++	+	++	++	++	++	++	++	An upgraded P&R network and new travel hubs will result in greater access to different transport modes including public transport, walking and cycling, which would improve access to services, facilities and amenities and will be of benefit to all groups. Benefits may not be as significant for older people or those with certain health problems who may not be able to utilise bus services, walking or cycling as modes of transport.
2	Improve affordability of transport	+	+	+	+	+	+	+	+	+	An upgraded P&R network and new travel hubs will result in increased access to affordable transport modes and allow more journeys to be made by low / zero cost modes. However, affordability of private and public transport will remain a key factor in this scheme being accessible to all, particularly for certain groups such as young people, individuals with disabilities who may rely on benefits, or those from some ethnic communities who may face limited job

EqIA sub-objective		Scale of Effect									Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
											opportunities or are more likely to be employed in lower-paying positions.
3	Improve safety of the transport network (including roads) and reduce the number of accidents and other incidents	+	++	+	++	++	++	++	++	++	It is anticipated these interventions will lead to reduced congestion and a more efficient P&R and active travel network. This would likely reduce the potential for accidents and will reduce stress in the travelling population – potentially reducing conflict among travellers. Groups such as the elderly, disabled and those heavily pregnant may not be able to avail of active travel and bus services to as great an extent as other groups.
4	Improve provision of public transport in rural areas, coastal communities, or to those areas experiencing constraint in public transport provision	+	+	+	+	+	+	+	+	+	As these interventions are concentrated in the City Centre area there is unlikely to be significant improvements to access in rural or coastal communities.
5	Reduce severance	+	++	+	++	++	++	++	++	++	Reduced congestion will lead to reduced severance. In addition, connections will be enhanced through increased P&R sites and travel hubs, with benefits for all groups. Benefits may not be as significant for older people or those with certain health problems who may not

EqIA sub-objective		Scale of Effect									Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
											be able to utilise bus services, walking or cycling as modes of transport.
6	Reduce air, noise, odour and light pollution from transport	+	++	+	++	++	++	++	++	++	It is considered these interventions will encourage public transport and active travel usage and reduce reliance on private vehicles in the city, reducing air, noise and light pollution. Benefits would be most experienced at a local level across all groups. Improved air quality would particularly benefit children and those with certain health issues. However, new P&R sites and travel hubs may result in increased pollution at the sites, particularly affecting vulnerable groups, such as children and those with certain health issues, living in close proximity.

E.2.5.3 Rural Proofing Assessment Table

Rural Needs sub-objective		Scale of Effect										Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Those with low income or no access to private vehicle	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
1	Increase access via a range of transport modes for rural communities.	0	0	0	0	0	0	0	0	0	0	As these interventions are concentrated in the City Centre area there is unlikely to be significant improvements to access in rural communities.
2	Enable economic growth, and employment diversification in rural areas.	0	0	0	0	0	0	0	0	0	0	As these interventions are concentrated in the City Centre area there is unlikely to be significant improvements to growth and employment in rural communities.
3	Connecting people with nature	+	+	+	+	+	+	+	+	+	+	An upgraded P&R network and new travel hubs will result in greater access to different transport modes including public transport, walking and cycling. This will improve connections and may enable greater access to greenspace and areas of nature benefitting all groups.

E.2.6 **Parking (reduction in parking capacities, changes to charges and intro of RPZs)**

E.2.6.1 Health Impact Assessment Table

HIA sub-objective		Scale of Effect								Description of effect/Recommendations for mitigation or enhancement
		Children and adolescents	Older people	Disabled/ other health problems	Low-income groups	Cyclists, pedestrians, commuters	Residents	Employees	**Assessment summary**	
1	Improve accessibility to employment, educational, health and leisure services and facilities and amenities for all	+	+/-	+/-	+	+	++	+	+	A general encouragement for people to utilise active travel or public transport by reducing parking capacities may free up space for those who still rely on the private car. Care needs to be taken that moving car parks away from town centres does not result in disadvantage to less mobile groups such as the elderly or disabled. The introduction of RPZs would be a particular benefit to residents.
2	Improve affordability of transport	-	-	-	--	+	+	-	--	While note is made that increased costs could encourage more sustainable modes, care needs to be taken that increases to parking charges do not adversely affect those on low incomes disproportionately. Local residents will benefit from RPZs.
3	Improve safety of the transport network (including roads) and reduce the number of accidents and other incidents	++	++	+	+	+	+	+	+	A general reduction in vehicle numbers due to this intervention type would help to improve safety. Removal of vehicles from town centres would make for a more pleasant and safe walking environment. Children and the elderly would benefit most.
4	Reduce severance	+	+	+	+	+	+	+	+	A general reduction in vehicle numbers due to this intervention type would help to reduce severance caused by heavy vehicle traffic. Removal of vehicles from town centres would make for a more

HIA sub-objective		Scale of Effect								Description of effect/Recommendations for mitigation or enhancement
		Children and adolescents	Older people	Disabled/ other health problems	Low-income groups	Cyclists, pedestrians, commuters	Residents	Employees	**Assessment summary**	
										pleasant and safe walking environment. All groups would benefit.
5	Improve connections between and within communities	+	+	+	+	+	+	+	+	A general reduction in vehicle numbers due to this intervention type would help improve connections between and within communities. All groups would benefit.
6	Reduce air, noise, odour and light pollution from transport	+	+	+	+	+	+	+	+	A general reduction in vehicle numbers would likely result in a reduction to air, noise etc, benefitting all groups. Light pollution is likely to remain as present or potentially increase in edge of town areas.
7	Improve access to active travel modes	0	0	0	0	0	0	0	0	No effect identified
8	Improve access to public transport	0	0	0	0	0	0	0	0	No effect identified
9	Improve actual and perceived safety and security issues	+	+	+	+	+	+	+	+	A general reduction in vehicle numbers may improve safety in urban areas. All groups would benefit.

E.2.6.2 Equalities Impact Assessment Table

EqIA sub-objective		Scale of Effect									Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
1	Improve accessibility to services, facilities and amenities for all, in particular by active travel modes	+	+	+	+	+	+	+	+	+	General accessibility will be improved for all by better control of parking – making the system more efficient etc.
2	Improve affordability of transport	--	0	--	--	0	0	-	0	--	While note is made that increased costs could encourage more sustainable modes, care needs to be taken that increases to parking charges do not adversely affect those on low incomes disproportionately. Those in ethnic minority groups are often in lower income groups and therefore may be significantly affected by increased charges, along with the elderly and those with disabilities. Local residents will benefit from RPZs.
3	Improve safety of the transport network (including roads) and reduce the number of accidents and other incidents	++	+	+	+	+	+	+	+	+	A general reduction in vehicle numbers due to this intervention type would help to improve safety. Removal of vehicles from town centres would make for a more pleasant and safe walking environment. Children and the elderly would benefit most.

EqIA sub-objective		Scale of Effect									Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
4	Improve provision of public transport in rural areas, coastal communities, or to those areas experiencing constraint in public transport provision	0	0	0	0	0	0	0	0	0	No effect identified
5	Reduce severance	+	+	+	+	+	+	+	+	+	A general reduction in vehicle numbers due to this intervention type would help to reduce severance caused by heavy vehicle traffic. Removal of vehicles from town centres would make for a more pleasant and safe walking environment. All groups would benefit.
6	Reduce air, noise, odour and light pollution from transport	+	+	+	+	+	+	+	+	+	A general reduction in vehicle numbers would likely result in a reduction to air, noise etc. All groups would benefit. Light pollution is likely to remain as present or potentially increase in edge of town areas.

E.2.6.3 Rural Proofing Assessment Table

Rural Needs sub-objective		Scale of Effect										Description of effect/Recommendations for mitigation or enhancement
		Age	Gender	Disability	Those with low income or no access to private vehicle	Ethnicity	Faith	Sexual Orientation and Gender Reassignment	Pregnancy and Maternity	Marriage and Civil Partnerships	Assessment summary	
1	Increase access via a range of transport modes for rural communities.	0	0	0	0	0	0	0	0	0	0	As these interventions are concentrated in the City Centre area there is unlikely to be significant improvements to access in rural communities.
2	Enable economic growth, and employment diversification in rural areas.	0	0	0	0	0	0	0	0	0	0	As these interventions are concentrated in the City Centre area there is unlikely to be significant improvements to growth and employment in rural communities.
3	Connecting people with nature	0	0	0	0	0	0	0	0	0	0	No effect identified

Appendix F. Compatibility Assessment

Note: In the following tables the following scheme is used to summarise compatibility

√	Broadly Compatible
X	Potential Conflict
?	No sufficient detail provided to ascertain compatibility
NR	Not Relevant / No Relationship

F.1 Compatibility Assessment - Vision

ETP Element	Vision	
Enhance and re-balance transport networks in favour of sustainable modes to create an attractive, vibrant and safe economic region for residents, workers and visitors by delivering carbon reduction, improving air quality, enhancing the built and natural environment and facilitating healthy and sustainable travel choices over unnecessary private car travel		
ISA Objectives	**Compatibility?**	**Commentary**
Protect and Improve air quality	✓	Clear note is made within the vision to improving air quality. In addition, it is anticipated that outcomes which facilitate healthy and sustainable travel choices and enhancing the natural and built environment will lead to protection and improvement of air quality
Reduce carbon dioxide (CO2) emissions from transport and contribute to meeting net zero carbon targets	✓	Clear note is made to delivering carbon reduction through the enhancement and re-balancing of transport networks. Also, it is anticipated that the outcomes which facilitate healthy and sustainable travel choices as well as enhancing the built and natural environment would require a reduction in pollution emissions. This is likely to help enable a reduction in carbon emissions.
Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	✓	It is anticipated that a transport network which facilitates safe, healthy and sustainable travel choices for residents, workers and visitors would result in outcomes that increase resilience to a changing climate, including reducing the risk of flooding. This may be enabled through the enhanced built and natural environment which may include flood management interventions and SuDS.
Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	✓	It is anticipated that the creation of an attractive and vibrant region and a transport network that enables the enhancement of the natural environment would result in outcomes that provide for the protection and enhancement of biodiversity etc.
Protect and enhance sites designated internationally for nature conservation purposes *(HRA objective)*	✓	Clear note is made within the vision to enhance the natural environment. This is anticipated to include the need to protect and enhance sites designated for nature conservation.

ETP Element	Vision	
Protect, enhance and promote geodiversity	✓	It is anticipated that a transport network that enables the enhancement of the natural environment would result in outcomes that provide for the enhancement of features and sites designated for geodiversity.
Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings	✓	It is anticipated that a transport network that enables the enhancement of the natural and built environment would result in outcomes that provide for the conservation and enhancement of heritage assets and the wider historic environment, as well as the setting (built or natural) of such assets.
Protect and enhance the character and quality of landscapes, townscapes and visual amenity	✓	It is anticipated that a transport network that enables the enhancement of the natural and built environment, that creates an attractive and vibrant region, would result in outcomes that provide for the enhancement of character and quality of landscapes, townscapes and visual amenity.
Protect and enhance the water environment	✓	It is anticipated that a transport network that enables the enhancement of the natural environment would result in outcomes that provide for the enhancement of the water environment. Healthy and sustainable transport modes would also reduce the potential for accidental release of hydrocarbons due to refuelling or accidents.
Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	✓	It is anticipated that a transport network that enables the enhancement of the built and natural environment in an attractive and safe region, would result in outcomes that provide for the remediation of contamination, use of previously developed land and the conservation of soil resources.
Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated	✓	It is anticipated that a transport network that enables the enhancement of the built and natural environment would result in outcomes that prudently use resources and reduce the level of waste.

ETP Element	Vision	
Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all	✓	Note is made within the vision in regard to creating an attractive, vibrant and safe economic region for residents, workers and visitors. As such it is anticipated this element of the vision will lead to the promotion of economic growth etc.
Support the wider coordination of land use, energy planning and transport planning across the Belfast Metropolitan Transport Area and into surrounding regions	?	While it is anticipated that meeting the Vision will require better coordination and planning, it is not specifically noted within the vision and as such will be dependent upon implementation measures. **Recommendation: Consider noting the need for effective coordination of transport and land use planning.**
Improve health and well-being for all citizens and reduce inequalities in health	✓	Note is made within the vision to facilitate healthy and sustainable travel choices, this may include modes of active travel and therefore is anticipated to improve the health and well. Note is also made in the vision for the transport network to provide a safe region for residents, workers and visitors.
Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society	?	While residents, workers and visitors are referenced in the vision, it does not set out the need for equality for all citizens. **Recommendation: Consider amending vision to make it clear that the aims of the Vision are for all members of society.**

F.2 Compatibility Assessment - Objective 1

ETP Element	Objective 1	
Reduce the need to travel by supporting safe, inclusive and connected neighbourhoods		
ISA Objectives	**Compatibility?**	**Commentary**
Protect and Improve air quality	✓	Whilst the objective does not specifically mention the protection or improvement of air quality, it is anticipated that through reducing the need to travel these measures would act to improve air quality through reducing pollution emissions. Supporting safe, inclusive and connected neighbourhoods would be anticipated to encourage active travel and therefore reduce reliance on the private car and associated pollution.
Reduce carbon dioxide (CO2) emissions from transport and contribute to meeting net zero carbon targets	✓	Whilst the objective does not specifically mention the reduction of carbon dioxide emissions, it is anticipated that through reducing the need to travel these measures would act to reduce carbon emissions. Supporting safe, inclusive and connected neighbourhoods would be anticipated to encourage active travel and therefore reduce reliance on the private car and associated CO2 emissions.
Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	?	The objective does not contribute to this ISA Objective. It is suggested that the objective be strengthened by ensuring that any new connections between neighbourhoods are designed to be resilient to the effects of climate change and / or to mitigate the effects of climate change through, for example, incorporating SUDS and flood protection measures. **Recommendation: Specific note should be made in this objective of the need for climate resilience**
Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	✓	Reducing the need to travel will act to protect and reduce pressures such as disturbance from noise or light, as well as poor air quality and habitat fragmentation, on local vulnerable habitats and species.
Protect and enhance sites designated internationally for nature conservation purposes *(HRA objective)*	✓	Reducing the need to travel will act to protect and reduce pressures such as disturbance from noise or light, as well as poor air quality and habitat fragmentation, on on internationally designated sites.
Protect, enhance and promote geodiversity	**NR**	No relationship between objectives has been identified. The ETP Objective concerns supporting safe, inclusive and connected neighbourhoods.

ETP Element	Objective 1	
Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings	?	Whilst the objective is not specifically aimed at protecting heritage assets, there is a clear emphasis placed on providing safe, inclusive and connected neighbourhoods to reduce the need to travel, which will in turn reduce air pollution. This may also reduce pollution related deposition and deterioration to historical buildings, structures and monuments.
Protect and enhance the character and quality of landscapes, townscapes and visual amenity	✓	The Objective is likely to reduce the dominance of motorised transport in local neighbourhoods by supporting connected neighbourhoods. This is likely to protect and enhance the quality of townscape and visual amenity.
Protect and enhance the water environment	✓	The Objective is likely to reduce the dominance of motorised transport in local neighbourhoods by supporting connected neighbourhoods, therefore reducing the potential for accidental spillage of hydrocarbons from private vehicles. There will also be less wear and tear on brakes and tyres and as such reduce the generation of polluted runoff to watercourses.
Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	?	The objective will reduce the need to travel which may in turn reduce the need for new roads. This may help to conserve soil resources.
Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated	?	It is unclear what the implications for natural resources, production of waste and re-use / recycling will be. All of these effects could be adverse for example if new infrastructure is required to connect neighbourhoods, but opportunities will also be provided, for example through more active travel leading to more prudent use of and less waste of natural resources such as hydrocarbons.
Promote economic growth and job creation, and improve access and	?	While it is anticipated that supporting connected neighbourhoods could provide access to opportunities, the overall implications for economic growth and job creation are unclear. **Recommendation: Specific note should be made in this objective of the connection to economic opportunities i.e. jobs and skills**

ETP Element	Objective 1	
connectivity to jobs and skills for all		
Support the wider coordination of land use, energy planning and transport planning across the Belfast Metropolitan Transport Area and into surrounding regions	?	No reference has been made with respect to the coordination of land use, energy planning and transport planning directly within this ETP objective however, it is anticipated that in order to achieve the interventions required to deliver on this objective, coordination with land use and transport planning will be needed.
Improve health and well-being for all citizens and reduce inequalities in health	✓	Reducing the need to travel, and therefore the number of journeys undertaken by private cars is anticipated to result in a reduction in the negative external effects of transport on peoples health and wellbeing. Likely benefits include making people more active, reducing traffic emissions and reducing noise. By providing safe, inclusive and connected neighbourhoods and the objective is therefore also anticipated to promote community safety.
Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society	✓	The objective will provide safe, inclusive and connected neighbourhoods and therefore is anticipated to promote greater equality of opportunity for all citizens.

F.3 Compatibility Assessment - Objective 2

ETP Element	Objective 2	
Deliver a reduction in carbon emissions by increasing accessibility for all by sustainable travel modes.		
ISA Objectives	**Compatibility?**	**Commentary**
Protect and Improve air quality	✓	This Objective, while not specifically aimed at improving air quality, is anticipated to contribute significantly to improved air quality as the aim is to reduce carbon emissions and increase accessibility to sustainable travel modes. This is anticipated to reduce dependence on the private car and encourage active travel modes with consequent benefits on local air quality.
Reduce carbon dioxide (CO2) emissions from transport and contribute to meeting net zero carbon targets	✓	This objective aims to reduce carbon emissions and therefore will contribute to meeting net zero targets. The objective is anticipated to reduce dependence on the private car and encourage active travel modes with consequent reductions in CO2 emissions.
Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	?	While this Objective is likely to contribute to reducing the rate of climate change and therefore the frequency of extreme weather events, it will not act to increase resilience in the transport network.
Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	✓	Reduced emissions anticipated as a result of this objective will act to protect and reduce pressures on local vulnerable habitats and species. This objective is further anticipated to result in an increased modal shift towards active travel, public transport and reduced reliance on private transport. Consequently, pressures in respect of noise and light pollution, air quality, habitat fragmentation, among others will be reduced.
Protect and enhance sites designated internationally for nature conservation purposes *(HRA objective)*	✓	Reduced emissions anticipated as a result of this objective will act to protect and reduce pressures on protected sites. This objective is anticipated to result in an increased modal shift towards active travel, public transport and reduced reliance on private transport. Consequently, pressures in respect of noise and light pollution, air quality, habitat fragmentation, among others on sites designated internationally will be reduced.
Protect, enhance and promote geodiversity	✓	Whilst this Objective does not concern the protection of geodiversity assets specifically, efforts to reduce carbon emissions and in turn the magnitude of climate change, will help indirectly reduce the frequency and

ETP Element	Objective 2	
		severity of extreme weather that contribute to coastal erosion and flash flooding. Reducing the frequency and severity of these events will therefore act to protect geodiversity.
Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings	✓	Whilst this Objective does not concern the protection of heritage assets specifically, efforts to reduce carbon emissions and in turn the magnitude of climate change, will help indirectly reduce the frequency and severity of extreme weather that contribute to coastal erosion and flash flooding. Reducing the frequency and severity of these events will therefore act to protect heritage assets. Reduced air pollution locally will also reduce pollution related deposition and deterioration tohistorical buildings, structures and monuments.
Protect and enhance the character and quality of landscapes, townscapes and visual amenity	✓	Increasing the accessibility to sustainable modes of transport and the subsequent decrease in the number of journeys made in private cars through this objective is anticipated to reduce congestion and may in turn reduce the need for new roads. This would help to protect and enhance landscapes and visual amenity.
Protect and enhance the water environment	✓	Reduced emissions anticipated as a result of this objective will act to protect and reduce pressures on the water environment. In addition, this objective is anticipated to result in an increased modal shift towards active travel, public transport and reduced reliance on private transport and the combustion engine. Consequently pollution entering watercourses through surface run off on roads including chemicals, oils and other hydrocarbons as well as heavy metals will be reduced. Air borne pollution levels are also anticipated to be reduced and this would lead to less deposition in water courses.
Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	?	Reducing the need to travel and decreasing the number of journeys made in private cars through this objective is anticipated to reduce congestion and may in turn reduce the need for new roads. This may help to conserve soil resources. There may though, still be a need for new infrastructure such as active travel routes, new travel hubs etc.
Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated	?	The objective aims to reduce carbon emissions in the transport sector and it is anticipated that likely interventions to achieve this will include modal shift away from combustion powered vehicles and towards more sustainably fuelled vehicles. This will reduce pressures on finite natural resources including hydrocarbons. However, there is likely to be a requirement for resource use due to the likely need for new infrastructure such as active travel routes, new travel hubs etc.

ETP Element	Objective 2	
Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all	✓	The ETP objective concerns delivering a reduction in carbon emissions. However, it also promotes sustainable travel modes and this may provide new routes to employment and education / training opportunities for more people, with consequent benefits to the economy and job creation.
Support the wider coordination of land use, energy planning and transport planning across the Belfast Metropolitan Transport Area and into surrounding regions	?	Enabling this Objective is expected to include increasing uptake of energy efficient and zero or ultra low carbon vehicles. Provision of associated infrastructure such as charging facilities is expected to require coordination of various sectors across the ETP Area. **Recommendation: Specific note should be made in the objective of the need for coordination of planning to be considered within the design of all transport infrastructure**
Improve health and well-being for all citizens and reduce inequalities in health	✓	The objective aims to reduce carbon emissions in the transport sector through increasing the accessibility of sustainable transport, this will include active travel and public transport. Interventions to encourage active travel will promote health and well-being as will improved air quality through reduced reliance on combustion vehicles. Reducing the contribution of the ETP area to climate change will play a part in helping to reduce the adverse effects caused around the globe such as severe weather effects and as such may play a part on helping community safety. **Recommendation: Text should be incorporated to recognise the importance of community safety in transport infrastructure**
Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society	✓	To deliver the reduction on carbon emissions the objective will increase the accessibility for all by sustainable travel modes. This will help to promote greater equality of opportunity for all citizens.

F.4 Compatibility Assessment - Objective 3

ETP Element	Objective 3	
Promote healthy and inclusive communities by developing active travel options and enhancing the local built and natural environment.		
ISA Objectives	**Compatibility?**	**Commentary**
Protect and Improve air quality	✓	Developing active travel options will encourage a modal shift away from conventional methods of travel, including the private car. This will contribute directly to improving air quality locally and contribute to more healthy and inclusive communities.
Reduce carbon dioxide (CO2) emissions from transport and contribute to meeting net zero carbon targets	✓	Developing active travel options will encourage a modal shift away from conventional methods of travel, including the private car. This will contribute directly to reducing carbon dioxide emissions with fewer cars on the road as more people choose to walk or cycle.
Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	?	It is suggested that the ETP Objective be strengthened by ensuring that active travel networks are designed to be resilient to the effects of climate change and / or to mitigate the effects of climate change through, for example, incorporating SUDS and flood protection measures.
Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	?	Increased use of active travel and the subsequent reduced use of private cars as a result of this ETP Objective will act to protect and reduce pressures such as noise and light pollution, air quality and habitat fragmentation on local vulnerable habitats and species. In addition the objective will aim to enhance the natural environment. Nevertheless, there is a potential for new routes / active travel infrastructure to lead to direct / indirect effects on biodiversity. It is suggested that this ETP Objective be strengthened to recognise the valuable function ecological networks can bring in making active travel networks attractive places to use. **Recommendation: Objective could be strengthened to recognise the valuable function ecological networks can bring in making active travel networks attractive places to use**
Protect and enhance sites designated internationally for nature conservation purposes *(HRA objective)*	?	Increased use of active travel and the subsequent reduced use of private cars use as a result of this ETP Objective will act to protect and reduce pressures such as noise and light pollution, air quality and habitat fragmentation on sites designated for nature conservation. In addition, clear note is made that the objective will aim to enhance the natural environment. Nevertheless, there is a potential for new routes / active travel infrastructure to lead to direct / indirect effects on designated sites.

ETP Element	Objective 3	
Protect, enhance and promote geodiversity	?	While the objective aims to enhance the natural environment, there is a potential that the need to provide for walking and cycling could lead to new infrastructure such as new routes that could provide opportunities to promote geodiversity, though it could also lead to adverse effects. **Recommendation: Specific note should be made in the objective of the need for geodiversity to be considered within the design of all transport infrastructure**
Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings	?	While the objective aims to enhance the built and natural environment, there is a potential that the need to provide for walking and cycling could lead to new infrastructure such as new routes that could lead to adverse effects on the historic environment, including structures and setting etc., though opportunities for promoting these assets could also be provided. **Recommendation: Specific note should be made in the objective of the need for the historic environment to be considered within the design of all transport infrastructure**
Protect and enhance the character and quality of landscapes, townscapes and visual amenity	?	While the objective aims to enhance the built and natural environment, it does not make specific reference to the character and quality of landscapes, townscapes and visual amenity. New infrastructure could have adverse effects on landscape etc. It is suggested that this ETP objective be strengthened to recognise the contribution landscape, townscape and visual amenity can have in promoting uptake of active travel. As such, design of active travel networks should, wherever possible, protect and enhance the character and quality of landscape, townscape and visual amenity. **Recommendation: Specific note should be made in the objective of the need for the landscape and townscape to be considered within the design of all transport infrastructure**
Protect and enhance the water environment	?	While the objective aims to enhance the natural environment, it does not make reference to the water environment. However, by encouraging a modal shift towards active travel and reduced reliance on private transport and the combustion engine pollution entering watercourses through surface run off on roads including chemicals, oils and other hydrocarbons as well as heavy metals will be reduced. Nevertheless, new infrastructure could have implications for the water environment. It is suggested that this objective be strengthened to recognise the contribution the water environment can have in respect of active travel networks and their amenity value. Design of active travel networks should, where possible, seek to integrate the water environment. **Recommendation: Specific note should be made in the objective of the need for the water environment to be considered within the design of all transport infrastructure**
Seek to remediate contaminated land, facilitate	?	Development of active travel routes / options could provide opportunities to use previously developed land, or remediate contamination. However, these could also lead to a loss of agricultural and soil resources. It is

ETP Element	Objective 3	
the re-use of previously developed land, as well as conserve soil and agricultural resources		suggested that this objective could be strengthened to highlight the value previously developed land, particularly historic transport infrastructure such as disused railways can have in connecting places. Design of active travel networks should, where possible, seek to integrate previously developed land. **Recommendation: Specific note should be made in the objective of the need for the remediation of contaminated land, as well as protection of soil and agricultural resources etc to be considered within the design of all transport infrastructure**
Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated	?	The objective aims to encourage a modal shift towards active travel. This will reduce pressures on finite natural resources including hydrocarbons. However, the provision of new active travel infrastructure will require the use of finite resources and will result in the production of waste.
Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all	✓	This ETP objective promotes active travel modes and this may provide new routes to employment and education / training opportunities for more people, with consequent benefits to the economy and job creation.
Support the wider coordination of land use, energy planning and transport planning across the Belfast Metropolitan Transport Area and into surrounding regions	?	No reference has been made with respect to the coordination of land use, energy planning and transport planning directly within this objective however, it is anticipated that in order to achieve the interventions required to deliver on this objective, coordination with land use and transport planning will be essential. **Recommendation: Specific note should be made in the objective of the need for coordination of planning to be considered within the design of all transport infrastructure**
Improve health and well-being for all citizens and reduce inequalities in health	✓	Clear note is made in the objective to promoting healthy and inclusive communities. In addition, developing active travel options and its subsequent uptake will result in likely benefits in terms of making people more active, reducing traffic emissions, reducing noise etc. Higher levels of walking and cycling in enhanced built environments is anticipated to increase overall community safety. The policy could be strengthened by the incorporation of specific text to recognise the importance of community safety in transport infrastructure.
Promote greater equality of opportunity for all citizens,	✓	Clear note is made in the objective to promoting healthy and inclusive communities, which will promote equality of opportunity.

ETP Element	Objective 3
with the desired outcome of achieving a fairer society	

F.5 Compatibility Assessment - Objective 4

ETP Element	Objective 4	
Reduce unnecessary use of the private car by implementing effective demand management measures.		
ISA Objectives	**Compatibility?**	**Commentary**
Protect and Improve air quality	✓	Whilst the objective does not specifically mention the protection or improvement of air quality, it is anticipated that through reducing unnecessary use of private cars, these measures would act to improve air quality through reducing pollution emissions.
Reduce carbon dioxide (CO2) emissions from transport and contribute to meeting net zero carbon targets	✓	Whilst the objective does not specifically mention the reduction of carbon dioxide emissions, it is anticipated that through reducing the unnecessary use of private cars, these measures would act to reduce carbon emissions.
Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	?	The objective does not contribute to this ISA Objective. It is suggested that the objective be strengthened by ensuring that where appropriate demand management designed to be resilient to the effects of climate change and / or to mitigate the effects of climate change through, for example, incorporating SUDS and flood protection measures.
Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	✓	Reducing the unnecessary use of private cars will act to protect and reduce pressures such as noise and light pollution, poor air quality and habitat fragmentation, on local vulnerable habitats and species.
Protect and enhance sites designated internationally for nature conservation purposes *(HRA objective)*	✓	Reducing the unnecessary use of private cars will act to protect and reduce pressures such as noise and light pollution, poor air quality and habitat fragmentation, on internationally designated sites.
Protect, enhance and promote geodiversity	?	While the objective does not specifically reference geodiversity, should the demand management measures involve construction it may be affected. Further details on measures are required.

ETP Element	Objective 4	
Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings	?	Whilst the objective is not specifically aimed at protecting heritage assets, there is a clear emphasis placed on reducing the unnecessary use of private cars, which will in turn reduce air pollution, which may also reduce pollution related deposition and deterioration to historical buildings, structures and monuments.
Protect and enhance the character and quality of landscapes, townscapes and visual amenity	✓	The Objective is likely to result in the reduced dominance of motorised transport in local neighbourhoods by reducing the unnecessary use of private cars, this is likely to protect and enhance the quality of townscape and visual amenity.
Protect and enhance the water environment	✓	The Objective is likely to result in the reduced dominance of motorised transport in local neighbourhoods by reducing the unnecessary use of private cars, therefore reduce the potential for accidental spillage of hydrocarbons from private vehicles. There will also be less wear and tear on brakes and tyres and as such reduce the generation of polluted runoff to watercourses.
Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	?	The objective will reduce the unnecessary use of private cars which may in turn reduce the need for new roads. This may help to conserve soil and agricultural resources, though there may be a need for some infrastructure which could result in impacts. However, this may provide opportunities to remediate contaminated land or re-use previously developed land e.g. by ‘freeing up’ car parks for other use.
Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated	✓	It is unclear what the implications for natural resources, production of waste and re-use / recycling will be. Some of these effects could be adverse for example if new infrastructure for demand management measures, but the reduction of unnecessary private car use could lead to more prudent use of and less waste of natural resources such as hydrocarbons.
Promote economic growth and job creation, and improve access and	?	The ETP objective concerns reducing unnecessary use of the private car and implementing demand management measures. These could potentially effect access and connectivity to jobs and skills, with further effects on the economy, if adequate provision is not made for other modes to replace the car. However,

ETP Element	Objective 4	
connectivity to jobs and skills for all		demand management etc., could make journey times more reliable and reduce congestion which can have economic benefits.
Support the wider coordination of land use, energy planning and transport planning across the Belfast Metropolitan Transport Area and into surrounding regions	?	No reference has been made with respect to the coordination of land use, energy planning and transport planning directly within this ETP objective however, it is anticipated that in order to achieve the interventions required to deliver on this objective, coordination with land use and transport planning may be needed. **Recommendation: Specific note should be made in the objective of the need for coordination of planning to be considered within the design of all transport infrastructure**
Improve health and well-being for all citizens and reduce inequalities in health	✓	By reducing the number of journeys undertaken by private cars there will be a reduction in the negative external effects of transport on peoples health and wellbeing and likely benefits in terms of reducing traffic emissions, reducing noise etc. There are also anticipated to be benefits to community safety as a result in the likely reduction in traffic.
Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society	X	The ETP objective concerns reducing unnecessary use of the private car and implementing demand management measures. These could potentially effect access and connectivity to jobs and skills for those who are car dependent.

F.6 Compatibility Assessment - Objective 5

ETP Element	Objective 5	
Improve air quality and the environment by encouraging the use of vehicles which utilise sustainable fuels.		
ISA Objectives	**Compatibility?**	**Commentary**
Protect and Improve air quality	✓	Clear note is made in this objective to improve air quality, and this will be done encouraging the use of vehicles which utilise sustainable fuels
Reduce carbon dioxide (CO2) emissions from transport and contribute to meeting net zero carbon targets	✓	The clear emphasis placed in this objective on improving air quality and encouraging the use of vehicles which utilise sustainable fuels is anticipated to reduce carbon emissions.
Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	?	It is unclear at this stage how this ETP Objective may affect the transport network and its resilience to a changing climate. On a broad scale, a reduction in emissions may help to contribute to reducing the pace of climate change and as such help to ameliorate the chance of extreme weather events increasing.
Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	✓	Through improving air quality the objective will act to protect and reduce pressures such as air quality, on local vulnerable habitats and species. Note is also made that the objective will improve the environment which is expected to include habitats.
Protect and enhance sites designated internationally for nature conservation purposes *(HRA objective)*	✓	Through improving air quality the objective will act to protect and reduce pressures such as air quality, on sites designated for nature conservation. Note is also made that the objective will improve the environment which is expected to include habitats and sites.
Protect, enhance and promote geodiversity	✓	Whilst this Objective does not concern the protection of geodiversity assets specifically, efforts to improve air quality and the likely subsequent reduction in carbon emissions and in turn the magnitude of climate change, will reduce the frequency and severity of extreme weather that contribute to coastal erosion and flash flooding. Reducing the frequency and severity of these events will therefore act to protect geodiversity.

ETP Element	Objective 5	
Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings		Whilst this Objective does not concern the protection of heritage assets specifically, efforts to improve air quality and the likely subsequent reduction in carbon emissions and in turn the magnitude of climate change, will reduce the frequency and severity of extreme weather that contribute to coastal erosion and flash flooding. Reducing the frequency and severity of these events will therefore act to protect heritage assets. Reduced air pollution locally will also reduce pollution related deposition and deterioration to historical buildings, structures and monuments.
Protect and enhance the character and quality of landscapes, townscapes and visual amenity	**NR**	No relationship between objectives has been identified. The ETP objective is concerned with improving air quality.
Protect and enhance the water environment	✓	Reduced emissions anticipated as a result of this objective will act to protect and reduce pressures on the water environment. In addition, this objective is anticipated to result in a shift towards vehicles using sustainable fuels. Consequently pollution entering watercourses through surface run off on roads including chemicals, oils and other hydrocarbons as well as heavy metals will be reduced. Air borne pollution levels are also anticipated to be reduced and this would lead to less deposition in water courses.
Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	**NR**	No relationship between objectives has been identified. The ETP objective is concerned with improving air quality.
Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated	✓	The objective aims to encourage modal shift away from combustion powered vehicles and towards those which utilise more sustainable fuels. This will reduce pressures on finite natural resources including hydrocarbons.
Promote economic growth and job creation, and improve access and	**NR**	No relationship between objectives has been identified. The ETP objective is concerned with improving air quality.

ETP Element	Objective 5	
connectivity to jobs and skills for all		
Support the wider coordination of land use, energy planning and transport planning across the Belfast Metropolitan Transport Area and into surrounding regions	?	Enabling this Objective is expected to include maximum uptake of energy efficient and zero or ultra low carbon vehicles. Provision of associated infrastructure such as charging facilities is expected to require coordination of various sectors across the ETP area. **Recommendation: Specific note should be made in the objective of the need for coordination of planning to be considered within the design of all transport infrastructure**
Improve health and well-being for all citizens and reduce inequalities in health	✓	Improved air quality through reduced reliance on combustion vehicles would work to improve health and well-being. Reducing the contribution of the ETP area to climate change will play a part in reducing the adverse effects caused around the globe such as severe weather effects and as such may play a part on helping community safety. **Recommendation: Text should be incorporated to recognise the importance of community safety in transport infrastructure**
Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society	?	The ETP objective is concerned with improving air quality and encouraging the use of vehicles which utilise sustainable fuels. There is a potential that this could lead to affordability issues in respect of choice of transport mode.

F.7 Compatibility Assessment - Objective 6

ETP Element	Objective 6	
Enhance the resilience and safety of the transport network to support the economy and meet the challenges of climate change.		
ISA Objectives	**Compatibility?**	**Commentary**
Protect and Improve air quality	**NR**	No relationship between objectives has been identified. The ETP objective concerns enhancing the resilience and safety of the transport network.
Reduce carbon dioxide (CO2) emissions from transport and contribute to meeting net zero carbon targets	**NR**	No relationship between objectives has been identified. The ETP objective concerns enhancing the resilience and safety of the transport network.
Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	✓	This Objective will require policy measures that increase the resilience of the transport network to the impacts of climate change. This is anticipated to include measures to reduce the risk of flooding and coastal erosion as these are a major risk to the transport network due to extreme weather events.
Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	**NR**	No relationship between objectives has been identified. The ETP objective concerns enhancing the resilience and safety of the transport network.
Protect and enhance sites designated internationally for nature conservation purposes *(HRA objective)*	**NR**	No relationship between objectives has been identified. The ETP objective concerns enhancing the resilience and safety of the transport network.
Protect, enhance and promote geodiversity	**?**	Whilst this Objective does not concern the protection of geodiversity assets specifically, increasing resilience of the transport network and meeting the challenges of climate change may involve flood protection measures. This would act to reduce the severity of impacts from extreme weather that contribute to coastal erosion and flash flooding and potentially protect geodiversity.

ETP Element	Objective 6	
Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings	?	Increasing resilience of the transport network and meeting the challenges of climate change may involve flood protection measures. This would be anticipated to potentially protect heritage assets, for example elements of railway infrastructure which are often designated as heritage assets.
Protect and enhance the character and quality of landscapes, townscapes and visual amenity	NR	No relationship between objectives has been identified. The ETP objective concerns enhancing the resilience and safety of the transport network.
Protect and enhance the water environment	?	Increasing resilience of the transport network and meeting the challenges of climate change may involve flood protection measures. This would be anticipated to protect the water environment from pollution during flooding.
Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	NR	No relationship between objectives has been identified. The ETP objective concerns enhancing the resilience and safety of the transport network.
Promote prudent use of finite natural resources from primary sources, maximise the use of alternative, secondary and recycled materials, reduce the level of waste generated	NR	No relationship between objectives has been identified. The ETP objective concerns enhancing the resilience and safety of the transport network.
Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all	✓	Clear note is made in the objective to ensure the resilience of the transport network to support the economy, this is anticipated to promote economic growth and ensure connectivity to jobs and skills.

ETP Element	Objective 6	
Support the wider coordination of land use, energy planning and transport planning across the Belfast Metropolitan Transport Area and into surrounding regions	?	No reference has been made with respect to the coordination of land use, energy planning and transport planning directly within this ETP objective however, it is anticipated that in order to achieve the interventions required to deliver on this objective, coordination with land use and transport planning will be needed.
Improve health and well-being for all citizens and reduce inequalities in health	✓	Clear note in made in the objective to enhancing the safety of the transport network. Increasing resilience of the transport network to the impacts of a changing climate is likely to help promote community safety as it will make the network more robust and resilient to extreme weather events which could endanger safety.
Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society	✓	The ETP objective concerns enhancing the resilience and safety of the transport network and it is anticipated this would be of benefit to all within society, though it should be recognised that some groups may be better able to take advantage.

F.8 Compatibility Assessment - Objective 7

ETP Element	Objective 7	
Support the efficient movement of goods and people by enhancing regional connectivity and access to ports and airports.		
ISA Objectives	**Compatibility?**	**Commentary**
Protect and Improve air quality	X	The movement of goods and people through enhanced regional connectivity may lead to an increase in traffic volumes and congestion as well as lead to growth in air pollution emissions from transport. **Recommendation: Specific note should be made in the objective of the need to for the movement of goods and people to be done sustainably**
Reduce carbon dioxide (CO2) emissions from transport and contribute to meeting net zero carbon targets	X	The movement of goods and people through enhanced regional connectivity may lead to an increase in traffic volumes and congestion as well as lead to growth in CO2 emissions from transport. **Recommendation: Specific note should be made in the objective of the need to for the movement of goods and people to be done sustainably**
Increase resilience of the transport network to the effects of a changing climate such as extreme weather events	?	It is anticipated that this Objective could lead to new or enhanced infrastructure including road or rail links – such links could help to increase resilience for example by providing new routes that could allow for diversions due to extreme weather events. It is suggested that the ETP Objective be strengthened by ensuring that any travel connectivity options are sustainable and are designed to be resilient to the effects of climate change and / or to mitigate the effects of climate change through, for example, incorporating SUDS and flood protection measures.
Protect and enhance protected habitats, sites, species, valuable ecological networks and promote ecosystem resilience and functionality and deliver Biodiversity Net Gain	X	The movement of goods and people through enhanced regional connectivity may lead to an increase in traffic volumes and congestion as well as lead to growth in CO2 emissions from transport. It is also anticipated that this Objective could lead to new or enhanced infrastructure including road or rail links. This has the potential to increase pressures on local biodiversity through fragmentation of habitat and deterioration in air, noise and light pollution for example. **Recommendation: Specific note should be made in the objective of the need to for the movement of goods and people to be done sustainably**
Protect and enhance sites designated internationally for nature conservation purposes *(HRA objective)*	X	The movement of goods and people through enhanced regional connectivity may lead to an increase in traffic volumes and congestion as well as lead to growth in CO2 emissions from transport. It is also anticipated that this Objective could lead to new or enhanced infrastructure including road or rail links This has the potential to increase pressures on sites designated for nature conservation through fragmentation of habitat and deterioration in air, noise and light pollution for example.

ETP Element	Objective 7	
		Recommendation: Specific note should be made in the objective of the need to for the movement of goods and people to be done sustainably
Protect, enhance and promote geodiversity	X	The movement of goods and people through enhanced regional connectivity could lead to an increase in traffic volumes or the need for new infrastructure that could lead to an effect on geodiversity. **Recommendation: Specific note should be made in the objective of the need to for the movement of goods and people to be done sustainably**
Conserve and enhance heritage assets and the wider historic environment including buildings, structures, landscapes, townscapes and archaeological remains and their settings	X	The movement of goods and people through enhanced regional connectivity could lead to an increase in traffic volumes or the need for new infrastructure that could lead to an effect on the historic environment, including structures, landscape or townscape etc. **Recommendation: Specific note should be made in the objective of the need to for the movement of goods and people to be done sustainably**
Protect and enhance the character and quality of landscapes, townscapes and visual amenity	X	The movement of goods and people through enhanced regional connectivity could lead to an increase in traffic volumes or the need for new infrastructure that could lead to an effect on landscapes, townscapes and visual amenity. **Recommendation: Specific note should be made in the objective of the need to for the movement of goods and people to be done sustainably**
Protect and enhance the water environment	X	The movement of goods and people through enhanced regional connectivity could lead to an increase in traffic volumes and congestion as well as lead to growth in pollution emissions from transport. This has the potential to increase pressures on watercourses through increased transport related contaminated surface water runoff comprising chemicals, hydrocarbons and heavy metals. **Recommendation: Specific note should be made in the objective of the need to for the movement of goods and people to be done sustainably**
Seek to remediate contaminated land, facilitate the re-use of previously developed land, as well as conserve soil and agricultural resources	?	If construction of new connections is required, soils and agricultural resources may be affected. Opportunities could be provided though for remediation of contaminated land or the use of previously developed land.
Promote prudent use of finite natural resources from primary sources, maximise	X	If construction of new connections is required, resources would be needed and waste may be generated.

ETP Element	Objective 7	
the use of alternative, secondary and recycled materials, reduce the level of waste generated		
Promote economic growth and job creation, and improve access and connectivity to jobs and skills for all	✓	Enhancing regional connectivity and access to ports and airports is anticipated to promote economic growth and improve access and connectivity to jobs and skills.
Support the wider coordination of land use, energy planning and transport planning across the Belfast Metropolitan Transport Area and into surrounding regions	✓	Efficient movement of goods and people around the ETP area will require the coordination of different sectors of planning.
Improve health and well-being for all citizens and reduce inequalities in health	?	The enhanced movement of people through enhanced regional connectivity could allow greater access to health services and work to reduce inequalities in health. The movement of goods and people through enhanced regional connectivity could also lead to an increase in traffic volumes and congestion with a corresponding effect on community safety. **Recommendation: Text should be incorporated to recognise the importance of community safety in transport infrastructure**
Promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society	?	The ETP objective concerns supporting the efficient movement of goods and people. While this will be of benefit to all, some groups may be better able to take advantage than others.

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