

APPROPRIATE ASSESSMENT CONCLUSION STATEMENT

FOR THE CORK METROPOLITAN AREA TRANSPORT STRATEGY 2040

for: National Transport Authority

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Section 1 Introduction and Background

1.1 Introduction

This is the Appropriate Assessment (AA) Conclusion Statement for the Cork Metropolitan Area Transport Strategy 2040. The obligation to undertake AA derives from Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC as transposed into Irish legislation by, inter alia, the European Communities (Birds and Natural Habitats) Regulations 2011, as amended. AA is a focused and detailed impact assessment of the implications of a strategic action (such as a plan, programme or strategy) or project, alone and in combination with other strategic actions and projects, on the integrity of any European Site in view of its conservation objectives. This AA Conclusion Statement should be read in conjunction with the Strategy and associated documents including the AA Natura Impact Report (NIR)¹.

1.2 Legislative Requirements in relation to AA

In carrying out the AA for the Strategy, Regulation 42 of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended), as amended, requires, inter alia, that the Authority considers the matters arrayed in the first column on Table 1.1 below. The second column identifies how these issues have been addressed.

Table 1.1 Matters taken into account by the AA

Matter specified by the Regulations	How addressed by AA
(a) the Natura Impact Statement	An AA NIR accompanies this AA Conclusion Statement and the Strategy
(b) any other plans or projects that may, in combination with the plan or project under consideration, adversely affect the integrity of a European Site (see Section 2)	Throughout the AA NIR, particularly Sections 2.4 and 3.4 of the NIR.
(c) any supplemental information furnished in relation to any such report or statement	This AA Conclusion Statement supplements the NIR that provides additional detail on European Sites.
(d) if appropriate, any additional information sought by the authority and furnished by the applicant in relation to a Natura Impact Report	The AA process and the accompanying Strategic Environmental Assessment process have taken into account submissions received during the Strategy/AA-preparation process – see Section 2 of this Statement.
(e) any information or advice obtained by the public authority	
(f) if appropriate, any written submissions or observations made to the public authority in relation to the application for consent for proposed plan or project	
(g) any other relevant information	

In addition to the above, the Regulations require that the Authority makes available for inspection a determination regarding the outcome of the assessment with respect to whether or not the Strategy would adversely affect the integrity of a European site (see copy at Section 4).

1.3 AA Conclusion Statement

Non-Statutory AA guidance (Department of Environment, Heritage and Local Government, 2009) states that (Section 4.14) it *"is recommended that planning authorities include a clear and discrete AA Conclusion Statement as a distinct section in the written statement of the plan separate to the SEA statement."* This guidance recommends that the following issues are addressed by this Statement:

- Summary of how the findings of the AA were factored into the Strategy (see Section 2);
- Reasons for choosing the Strategy as adopted, in the light of other reasonable alternatives considered as part of the AA process (see Section 3);
- A declaration that the Strategy as adopted will not have an adverse effect on the integrity of European Sites (provided at Section 4); and
- The NIR (the AA NIR is accompanied by this AA Conclusion Statement and has informed the AA Determination – see Section 4).

As recommended, this AA Conclusion Statement addresses the above issues.

¹ Also referred to as Natura Impact Statement

Section 2 How the findings of the AA were factored into the Strategy

The AA and the associated Strategic Environmental Assessment (SEA) undertaken alongside the Strategy have considered potential effects on biodiversity and have facilitated the integration of mitigation measures into the Strategy to reduce and where possible avoid effects to biodiversity, including the integrity of European Sites.

All recommendations made by the AA and SEA were integrated into the Strategy, including those related to biodiversity that are identified on Table 2.1 and Table 2.2 below.

Table 2.1 Measures being incorporated into the text of the Strategy

Strategy Section No.	SEA/AA Recommended Text
1. Introduction	AA The AA concludes that it is considered that the Strategy will not have a significant adverse effect on the integrity of the Natura 2000 network of sites ² . The details of the approach to the AA and the findings are set out in the AA Natura Impact Report that accompanies the Strategy. In a similar manner to the Environmental Report of the SEA, this separate document should be read and considered in parallel with the Strategy.
7. Cycling	Insertion of footnote: "Subject to compliance with the EU Habitats and/or Birds Directives."
9. Suburban Rail	Insertion of footnote: "Subject to compliance with the EU Habitats and/or Birds Directives."
13. Roads	Insertion of footnote: "Subject to compliance with the EU Habitats and/or Birds Directives."
17. Environmental Protection and Management	Recommend insertion of new Section entitled "Environmental Protection and Management" which integrates the measures detailed below into the Transportation Strategy. Regulatory framework for environmental protection and management In implementing this Strategy, the Authority will cumulatively contribute towards – in combination with other users and bodies – the achievement of the objectives of the regulatory framework for environmental protection and management, including compliance with EU Directives - including the Habitats Directive (92/43/EEC, as amended), the Birds Directive (2009/147/EC), the Environmental Impact Assessment Directive (2011/92/EU, as amended by 2014/52/EC) and the Strategic Environmental Assessment Directive (2001/42/EC) – and relevant transposing Regulations.
17. Environmental Protection and Management	Lower-level Decision Making Lower levels of decision making and environmental assessment should consider the sensitivities identified in Section 4 of the SEA Environmental Report, including the following: <ul style="list-style-type: none"> • Special Areas of Conservation and Special Protection Areas; • Features of the landscape that provide linkages/connectivity to designated sites (e.g. watercourses, areas of semi-natural habitat such as linear woodlands etc); • Salmonid waters; • Shellfish waters; • Freshwater pearl mussel catchments; • Natural Heritage Areas and proposed Natural Heritage Areas; • Areas likely to contain a habitat listed in Annex 1 of the Habitats Directive; • Un-designated sites of importance to wintering or breeding bird species of conservation concern; • Entries to the Record of Monuments and Places and Zones of Archaeological Potential; • Entries to the Record of Protected Structures; • Architectural Conservation Areas; and • Relevant landscape designations.
17. Environmental Protection and Management	Corridor and Route Selection Process for relevant new infrastructure The following Corridor and Route Selection Process will be undertaken for relevant new infrastructure: Stage 1 – Route Corridor Identification, Evaluation and Selection <ul style="list-style-type: none"> • Environmental constraints (including those identified in Section 4 of the SEA Environmental Report) and opportunities (such as existing linear infrastructure) will assist in the identification of possible route corridor options; • Potentially feasible corridors within which infrastructure could be accommodated will be identified and these corridors assessed. The selection of the preferred route corridor will avoid constraints and meet opportunities to the optimum extent, as advised by the relevant specialists; and • In addition to the constraints identified above, site-specific field data may be required to identify the most appropriate corridors. Stage 2 – Route Identification, Evaluation and Selection <ul style="list-style-type: none"> • Potentially feasible routes within the preferred corridor will be identified and assessed. The selection of preferred routes will avoid constraints and meet opportunities to the optimum extent, as advised by the relevant specialists, taking into account project level information and potential mitigation measures that are readily achievable; • In addition to the constraints identified above, site specific field data may be required to identify the most appropriate routes; and • In addition to environmental considerations, the identification of route corridors and the refinement of route lines is likely to be informed by other considerations.

² Except as provided for in Article 6(4) of the Habitats Directive, viz. There must be:

- a) no alternative solution available;
- b) imperative reasons of overriding public interest for the plan/programme/strategy/project etc. to proceed; and
- c) Adequate compensatory measures in place

Strategy Section No.	SEA/AA Recommended Text
17. Environmental Protection and Management	<p>Appropriate Assessment All projects and plans arising from this Strategy will be screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive. A plan or project will only be authorised after the competent authority has ascertained, based on scientific evidence, Screening for Appropriate Assessment, and subsequent Appropriate Assessment where necessary, that:</p> <ol style="list-style-type: none"> 1. The plan or project will not give rise to significant adverse direct, indirect or secondary effects on the integrity of any European site (either individually or in combination with other plans or projects); or 2. The plan or project will have significant adverse effects on the integrity of any European site (that does not host a priority natural habitat type/and or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000; or 3. The plan or project will have a significant adverse effect on the integrity of any European site (that hosts a natural habitat type and/or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons for overriding public interest, restricted to reasons of human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000.
17. Environmental Protection and Management	<p>Protection of European Sites No plans or projects giving rise to significant cumulative, direct, indirect or secondary impacts on European sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall be permitted on the basis of this Strategy (either individually or in combination with other plans or projects³).</p>
17. Environmental Protection and Management	<p>Other SEA Recommendations In implementing the Strategy, the Authority will ensure that the mitigation measures included in Table 9.3 of the SEA Environmental Report are complied with.</p>

³ Except as provided for in Article 6(4) of the Habitats Directive, viz. There must be:

- a) no alternative solution available,
- b) imperative reasons of overriding public interest for the plan/programme/strategy/project etc. to proceed; and
- c) Adequate compensatory measures in place.

Table 2.2 Provisions to be referred to in the Strategy under “Other SEA Recommendations” related to Biodiversity

Environmental component benefiting	Potential adverse effect mitigated	Requirement
Various	Various – see below	<p>Construction and Environmental Management Plans Construction Environment Management Plans (CEMPs) shall be prepared in advance of the construction of larger projects and implemented throughout. Such plans shall incorporate relevant mitigation measures which have been integrated into the Strategy and any lower tier Environmental Impact Statement or Appropriate Assessment. CEMPs typically provide details of intended construction practice for the proposed development, including:</p> <ol style="list-style-type: none"> a. location of the sites and materials compound(s) including area(s) identified for the storage of construction refuse, b. location of areas for construction site offices and staff facilities, c. details of site security fencing and hoardings, d. details of on-site car parking facilities for site workers during the course of construction, e. details of the timing and routing of construction traffic to and from the construction site and associated directional signage, f. measures to obviate queuing of construction traffic on the adjoining road network, g. measures to prevent the spillage or deposit of clay, rubble or other debris, h. alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of any public right of way during the course of site development works, i. details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels, j. containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained; such bunds shall be roofed to exclude rainwater, k. disposal of construction/demolition waste and details of how it is proposed to manage excavated soil, l. a water and sediment management plan, providing for means to ensure that surface water runoff is controlled such that no silt or other pollutants enter local water courses or drains, m. details of a water quality monitoring and sampling plan. n. if peat is encountered - a peat storage, handling and reinstatement management plan. o. measures adopted during construction to prevent the spread of invasive species (such as Japanese Knotweed). p. appointment of an ecological clerk of works at site investigation, preparation and construction phases. q. details of appropriate mitigation measures for lighting specifically designed to minimise impacts to biodiversity, including bats.
Various	Various – see below	<p>Maintenance Plan Lower tier assessments should examine the need for Maintenance Plans informed by environmental considerations to be prepared and implemented.</p>
Air and Climatic Factors	Emissions to air and associated issues	<p>Please refer to the overall approach and detail provided for by the Strategy focusses significant levels of investment in sustainable transport modes and other climate related provisions integrated into the Strategy.</p> <p>Air and Energy Contribute towards: compliance with air quality legislation; greenhouse gas emission targets; management of noise levels, including taking into account available noise maps and Noise Action Plans for the Cork Agglomeration and Major Roads in the Cork County Area (including provisions relating to the preservation of Quiet Areas); and reductions in energy usage.</p> <p>Climate Adaptation and Resilience Improve resilience and adaptation to climate change by taking into account issues including the following in the siting and design of projects:</p> <ul style="list-style-type: none"> • Extreme precipitation and risk of high river flows and associated implications including those relating to pluvial and fluvial flooding, bridge scour, soil erosion and landslides; • Sea level rise and storm surge and associated implications including those relating to coastal erosion and coastal flooding; and • Extreme temperatures and associated implications including those relating to the operation of transport and ancillary infrastructure and services.
Population and human health	Potential interactions if effects upon environmental vectors such as air are not mitigated	<p>Human Health Assess proposals for development in terms of, inter alia, potential impact on existing adjacent developments, existing land uses and/or the surrounding landscape. Where proposed developments would be likely to have a significant adverse effect on the amenities of the area through pollution by noise, fumes, odours, dust, grit or vibration, or cause pollution of air, water and/or soil, mitigation measures shall be introduced in order to eliminate adverse environmental impacts or reduce them to an acceptable operating level.</p>

Environmental component benefitting	Potential adverse effect mitigated	Requirement
<p>Biodiversity and flora and fauna</p> <p>- Arising from both construction and operation of transport infrastructure and services and associated facilities/ infrastructure: loss of/damage to biodiversity in designated sites, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna.</p> <p>- Habitat loss, fragmentation and deterioration, including patch size and edge effects.</p> <p>- Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species and/or coastal squeeze.</p> <p>- Effects in riparian zones where new crossings of waters, if any, are progressed.</p> <p>- Potential effects on vegetation from transport emissions.</p>		<p>Protection of Biodiversity including Natura 2000 Network</p> <p>Contribute, as appropriate, towards the protection of designated ecological sites including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); UNESCO World Heritage and UNESCO Biosphere sites; Ramsar Sites; Salmonid Waters; Shellfish Waters; Freshwater Pearl Mussel catchments; Flora Protection Order sites; Wildlife Sites (including Nature Reserves); Certain entries to the Water Framework Directive Register of Protected Areas; Natural Heritage Areas (NHAs) and proposed Natural Heritage Areas (pNHAs); Wildfowl Sanctuaries (see S.I. 192 of 1979) ; and Tree Preservation Orders (TPOs).</p> <p>Contribute towards compliance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines, including the following and any updated/superseding documents):</p> <ul style="list-style-type: none"> • EU Directives, including the Habitats Directive (92/43/EEC, as amended)⁴, the Birds Directive (2009/147/EC)⁵, the Environmental Liability Directive (2004/35/EC)⁶, the Environmental Impact Assessment Directive (2011/92/EU, as amended by 2014/52/EC), the Water Framework Directive (2000/60/EC) and the Strategic Environmental Assessment Directive (2001/42/EC). • National legislation, including the Wildlife Acts 1976 and 2010 (as amended), the Planning and Development Act 2000 (as amended) and associated Regulations, Environmental Impact Assessment Regulations, the Wildlife (Amendment) Act 2000, the European Union (Water Policy) Regulations 2003 (as amended), the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended), the European Communities (Environmental Liability) Regulations 2008⁷ and the Flora Protection Order 2015. • National policy guidelines (including any clarifying Circulars or superseding versions of same), including the "Landscape and Landscape Assessment" Draft Guidelines 2000, the Environmental Impact Assessment Sub-Threshold Development Guidelines 2003, Strategic Environmental Assessment Guidelines 2004 and the Appropriate Assessment Guidance 2010. • Catchment and water resource management Plans, including the relevant River Basin Management Plan and Flood Risk Management Plan (including any superseding versions of same). • Biodiversity Plans and guidelines, including the 3rd National Biodiversity Plan 2017-2023 (including any superseding version of same). • Freshwater Pearl Mussel Regulations (S.I. 296 of 2009) (including any associated designated areas or management plans). • Ireland's Environment 2016 - An Assessment (EPA, 2016, including any superseding versions of same), and to make provision where appropriate to address the report's goals and challenges.
		<p>NPWS & Integrated Management Plans</p> <p>Article 6(1) of the Habitats Directive requires that Member States establish the necessary conservation measures for European sites involving, if need be, appropriate management plans specifically designed for the sites or integrated into other development plans. The NPWS's current priority is to identify site specific conservation objectives; management plans may be considered after this is done.</p> <p>Where Integrated Management Plans are being prepared for European sites (or parts thereof), the National Parks and Wildlife Service shall be engaged with in order to ensure that plans are fully integrated with the Strategy and other plans and programmes, with the intention that such plans are practical, achievable and sustainable and have regard to all relevant ecological, cultural, social and economic considerations, including those of local communities.</p>
		<p>Coastal Zone Management</p> <p>Support measures to protect the coast, the coastal edge and coastal habitats; and facilitate an Integrated Coastal Zone Management approach to ensure the conservation, management and protection of man-made and natural resources of the coastal zone.</p>
		<p>Biodiversity and Ecological Networks</p> <p>Contribute towards the protection and enhancement of biodiversity and ecological connectivity, including woodlands, trees, hedgerows, semi-natural grasslands, rivers, streams, natural springs, wetlands, geological and geo-morphological systems, other landscape features, natural lighting conditions, and associated wildlife where these form part of the ecological network and/or may be considered as ecological corridors or stepping stones in the context of Article 10 of the Habitats Directive.</p>
		<p>Protection of Riparian Zone and Waterbodies and Watercourses</p> <p>Help to ensure that waterbodies and watercourses are protected from inappropriate development, including rivers, streams, associated undeveloped riparian strips, wetlands and natural floodplains. This will include the preservation habitat features/structure, such as treeline density, and protection buffers in riverine, wetland and coastal areas, as appropriate.</p>
		<p>Biodiversity including non-designated biodiversity</p> <p>Ensure the undertaking of appropriately detailed surveying and assessment at project/EIA level and minimisation of loss of biodiversity, including old trees or tree lines or areas of vegetation, as a result of the development of new or widened infrastructure.</p>
		<p>Help to ensure the appropriate protection of non-designated habitat features, landscapes and biological diversity.</p> <p>Proposals for development under the Strategy will seek to avoid impacts on the Atlantic Pond (off The Marina) and immediate surrounding area.</p>

⁴ Including Annex I habitats, Annex II species and their habitats and Annex IV species and their breeding sites and resting places (wherever they occur).

⁵ Including Annex I species and other regularly occurring migratory species, and their habitats (wherever they occur).

⁶ Including protected species and natural habitats.

⁷ Including protected species and natural habitats.

Environmental component benefitting	Potential adverse effect mitigated	Requirement
		<p>Lighting Sensitive Species Lighting fixtures should provide only the amount of light necessary for personal safety and should be designed so as to avoid creating glare or emitting light above a horizontal plane. Lighting fixtures should have minimum environmental impact, thereby contributing towards the protection of amenity and the protection of light sensitive species such as bats.</p> <p>Non-native invasive species Support, as appropriate, the National Parks and Wildlife Service's efforts to seek to control and manage the spread of non-native invasive species on land and water. Where the presence of non-native invasive species is identified at the site of any proposed development or where the proposed activity has an elevated risk of resulting in the presence of these species, details of how these species will be managed and controlled will be required.</p> <p>National Peatlands Strategy Support, as appropriate, any relevant recommendations contained in the National Peatlands Strategy 2015.</p>
Material Assets	<p>- Generation of construction waste - Loss or damage to built/amenity assets and infrastructure including as a result of new or widened transport infrastructure</p>	<p>Also see Construction and Environmental Management Plans provision above</p> <p>Construction Waste Demonstrate that all waste arising during construction phase will be managed and disposed of in a way that ensures the provisions of the Waste Management Acts and regulations and any of the relevant Local Authorities Waste Management Plans. Construction Waste Management Plans will be implemented to minimise waste and ensure correct handling and disposal of construction waste streams in accordance with the Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects, Department of the Environment, July 2006.</p> <p>Waste Creation Support the minimisation of waste creation and promote a practice of reduce, reuse and recycle where possible.</p> <p>Waste Disposal Safeguard the environment by seeking to ensure that residual waste is disposed of appropriately.</p> <p>Public Assets and Infrastructure Contribute towards the protection of public assets and infrastructure including resources such as: public open spaces, parks and recreational areas; public buildings and services; and utility infrastructure (electricity, gas, telecommunications, water supply, wastewater infrastructure etc.)</p>
Water	<p>- Adverse impacts upon the status of water bodies and entries to the WFD Register of Protected Areas, arising from changes in quality, flow and/or morphology - Increase in the risk of flooding</p>	<p>Also see Construction and Environmental Management Plans provision above and measures under soil above and material assets below</p> <p>Water Framework Directive and associated legislation Contribute towards, as appropriate, the protection of existing and potential water resources, and their use by humans and wildlife, including rivers, streams, wetlands, groundwater, coastal waters and associated habitats and species in accordance with the requirements and guidance in the EU Water Framework Directive 2000 (2000/60/EC), the European Union (Water Policy) Regulations 2003 (as amended), the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No. 272 of 2009), the Groundwater Directive 2006/118/EC and the European Communities Environmental Objectives (groundwater) Regulations, 2010 (S.I. No. 9 of 2010) and other relevant EU Directives, including associated national legislation and policy guidance (including any superseding versions of same). To support the application and implementation of a catchment planning and management approach to development and conservation, including the implementation of Sustainable Drainage System techniques for new development.</p> <p>River Basin Management Plan Support the implementation of the relevant recommendations and measures as outlined in the River Basin Management Plan 2018-2021, and associated Programme of Measures, or any such plans that may supersede same during the lifetime of the Strategy. Proposed plans, programmes and projects shall not have an unacceptable impact on the water environment, including surface waters, groundwater quality and quantity, river corridors and associated woodlands. Also to have cognisance of, where relevant, the EU's Common Implementation Strategy Guidance Document No. 20 and 36 which provide guidance on exemptions to the environmental objectives of the Water Framework Directive.</p> <p>Bathing Water Contribute towards the achievement of the requirements of the EU Bathing Water Directive and transposing Bathing Water Quality Regulations (SI No. 79 of 2008) and EU Mandatory Values, as a minimum, and EU Guide Values, where possible.</p> <p>Flood Risk Management Guidelines Comply with the Planning System and Flood Risk Management Guidelines (2009, DEHLG/OPW) (including any clarifying Circulars or superseding versions of same) and relevant outputs of the Catchment and Flood Risk Assessment and Management Studies.</p> <p>Surface Water Drainage and Sustainable Drainage Systems (SuDs) Ensure that new development is adequately serviced with surface water drainage infrastructure and promote the use of Sustainable Drainage Systems as appropriate.</p>
Landscape	<p>Occurrence of adverse visual impacts and conflicts with the appropriate protection of statutory designations relating to the landscape</p>	<p>Landscape Designations Contribute, as appropriate, towards the protection of county and local level landscape designations from incompatible developments. Proposals for development that have the potential to significantly adversely impact upon these designations shall be accompanied by an assessment of the potential landscape and visual impacts of the proposed development - demonstrating that landscape impacts have been anticipated and avoided to a level consistent with the sensitivity of the landscape and the nature of the designation.</p> <p>Amenity Contribute towards the protection of areas of amenity value and minimise losses, as a result of the development of new or widened infrastructure.</p> <p>Coastal Areas and Seascapes Contribute towards the protection of landscape character and the visual potential of the coast and conserve the character and quality of seascapes.</p> <p>National Landscape Strategy Support, as appropriate, any relevant recommendations contained in the National Landscape Strategy for Ireland 2015-2025.</p>

Environmental component benefitting	Potential adverse effect mitigated	Requirement
Cultural Heritage	Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities, including as a result of increasing traffic flows.	<p>Archaeological Heritage Contribute, as appropriate, towards the protection and sympathetic enhancement of archaeological heritage, in particular by implementing the relevant provisions of the Planning and Development Act 2000 (as amended) and the National Monuments Act, 1930 (as amended).</p> <p>Any alterations to archaeological heritage or its context, including that which may arise as a result of the development of new or widened infrastructure, shall be in compliance with relevant legislation.</p> <p>Protection of Archaeological Sites Contribute, as appropriate, towards the protection of archaeological sites and monuments and their settings, archaeological objects and underwater archaeological sites that are listed in the Record of Monuments and Places, in the ownership/guardianship of the State, or that are the subject of Preservation Orders or have been registered in the Register of Historic Monuments and Places. Contribute, as appropriate, towards the protection and preservation of archaeological sites, which have been identified subsequent to the publication of the Record of Monuments and Places.</p> <p>Consultation Consult with the National Monuments Service of the Department of Arts Heritage and the Gaeltacht in relation to proposed developments adjoining archaeological sites.</p> <p>Underwater Archaeological Sites Contribute, as appropriate, towards the protection and preservation of underwater archaeological sites in riverine, intertidal and sub-tidal locations.</p> <p>Architectural Heritage Contribute towards the protection of architectural heritage by complying, as appropriate, with the legislative provisions of the Planning and Development Act 2000 (as amended) in relation to architectural heritage and the policy guidance contained in the Architectural Heritage Protection Guidelines 2011 (and any updated/superseding document).</p> <p>Any alterations to architectural heritage or its context, including that which may arise as a result of the development of new or widened infrastructure, shall be in compliance with relevant legislation.</p>
Soil	<ul style="list-style-type: none"> - Adverse impacts on the hydrogeological and ecological function of the soil resource as a result of construction of transport and associated transport facilities/ infrastructure. - Adverse impacts on features or areas of geological / geomorphological interest as a result of construction of transport and associated transport facilities/ infrastructure. - Potential for increase in coastal /river bank erosion. 	<p>Also see requirements under other heading of water above.</p> <p>Soil Protection and Contamination Ensure that adequate soil protection measures are undertaken where appropriate. Adequate and appropriate investigations shall be carried out into the nature and extent of any soil and groundwater contamination and the risks associated with site development work, where brownfield development is proposed.</p> <p>Areas of geological interest Contribute towards the appropriate protection and maintenance of the character, integrity and conservation value of features or areas of geological interest.</p> <p>Land Take Contribute towards the target of the National Planning Framework's (2018) SEA to "Maintain built surface cover nationally to below the EU average of 4%."</p>

Section 3 Consideration of Alternatives

AA considerations informed the Strategic Environmental Assessment (SEA) process, including the consideration of reasonable alternatives

3.1 Need for the Strategy

The growth of the Cork Metropolitan Area that is provided for by the National Planning Framework (NPF) and associated National Development Plan (NDP), the Regional Spatial and Economic Strategy for the Southern Region (RSES), Cork City and County Development Plans and Local Area Plans presents a need for a supporting framework for the planning and delivery of transport infrastructure and services.

Furthermore, the emergence of increasing road congestion in recent years has underlined the need to provide an enhanced level of public transport provision to provide an alternative to car-based commuting. Congestion is a challenge that must be addressed by the transport system in a context where significant population growth, and associated economic activity and social, cultural and recreational activity is being planned for.

Furthermore, the significance of the need for action to reduce the use of fossil fuels and diminish the generation of greenhouse gases is recognised and required by legislation. The National Transport Authority is required to adhere to the National Climate Change Adaptation Framework, which was published by the Minister for Communications, Climate Action and Environment in 2018, and the Department of Transport, Tourism and Sport's Sectoral Adaptation Plan, published in 2017.

3.2 Existing provisions already in place

The Cork Metropolitan Area Transport Strategy aligns with documents setting out public policy for land use and/or transport and will be incorporated into the review and preparation of these documents. These include the NPF and associated NDP, the Strategic Investment Framework for Land Transport, the RSES, the City and County Development Plans and Local Area Plans. Certain transport related proposals already provided for by these documents (and considered by their environmental assessments) are amongst those included within the Strategy.

3.3 Overview of Alternatives Considered

The various elements of the Strategy are at different stages in the planning/environmental process. Furthermore, different elements of the Strategy will be developed by different agencies, at different times, according to different funding allocations.

Transportation is highly integrated with both land-use planning and the provision of other public infrastructure, such as water services. Different alternative scenarios will give rise to different land-use patterns, resulting in different environmental effects.

The Strategy was developed and assessed in the context of three notional **Investment Scenarios** as follows:

1. Business as Usual Scenario that incorporates committed investment in the road network only;
2. Improvements to Public Transport and Sustainable Travel – scenario this substantially increases public transport investment; and
3. Better Integration of Land Use with Public Transport and Sustainable Travel – this scenario has elements of Scenario 2 and involves better integration of land-use with public transport and sustainable transport.

In addition to the consideration of the above scenarios, **Corridor Specific Public Transport Network Options** were considered in the preparation of the Strategy for the following corridors:

- Strategic Rail Corridor

- Strategic East-West Corridor
- Public Transport Corridors Mode Capacities and Route Alignment

Improvements for the **national road network** that are proposed as part of the Strategy are already provided for by other plans, policies etc. and they are at different stages of the planning process. As such, SEA consideration of alternatives at this Strategy level is not relevant. SEA Alternatives relating to Road Network Options focus on the **road network to the north of the Cork City**.

3.4 Summary of Evaluation of Alternatives

3.4.1 Investment Scenario Alternatives

A summary of the comparative evaluation of investment scenarios that is provided in the SEA Environmental Report is provided on Table 3.1 below, with reference to Strategic Environmental Objectives⁸ (SEOs).

Table 3.1 Comparative Evaluation of Investment Scenarios against SEOs

Alternative	Likely to Improve status of SEOs to a greater degree	Likely to Improve status of SEOs	Likely to Improve status of SEOs to a lesser degree	Least Potential Conflict with status of SEOs - likely to be mitigated	Potential Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - less likely to be mitigated
Scenario 1: Business as Usual			✓ ⁹			✓ ¹⁰
Scenario 2: Improvements to Public Transport and Sustainable Travel		✓ ¹¹			✓ ¹²	
Scenario 3: Better Integration of Land Use with Public Transport and Sustainable Travel	✓ ¹³			✓ ¹⁴		

⁸ Strategic Environmental Objectives (SEOs) are methodological measures developed from policies which generally govern environmental protection objectives established at international, Community or Member State level and are used as standards against which the provisions of the Strategy and the alternatives can be evaluated in order to help identify which provisions would be likely to result in significant environmental effects and where such effects would be likely to occur, if - in the case of adverse effects – unmitigated. They are: AC1 To contribute towards reductions in travel related emissions (including pollutants, noise and greenhouse gas emissions) to air; AC2 To encourage modal change from car to more sustainable forms of transport; AC3 To facilitate a reduction in energy use by the transport sector and an increase in the proportion of energy from renewable sources by the transport sector; PHH1 To develop transport infrastructure and services closer to urban/suburban areas thereby facilitating consolidation of growth and limiting urban sprawl; PHH2 To contribute towards the protection of populations and human health from exposure to incompatible land uses; B1 To contribute towards compliance with the Habitats and Birds Directives with regard to the protection of European Sites and Annexed habitats and species; B2 To contribute towards compliance with Article 10 of the Habitats Directive with regard to the management of features of the landscape which - by virtue of their linear and continuous structure or their function as stepping stones (designated or not) - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species; B3 To contribute towards avoidance of significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites and to contribute towards compliance with the Wildlife Acts 1976-2012 with regard to the protection of listed species; M1 To contribute towards the protection of built/amenity assets and infrastructure; M2 To contribute towards the reuse and regeneration of brownfield sites; M3 To reduce waste volumes, minimise waste to landfill and increase recycling and reuse; W1 To contribute towards the maintenance and improvement, where possible, of the quality and status of surface waters; W2 To contribute towards maintaining and improving, where possible, the chemical and quantitative status of groundwaters; W3 To contribute towards compliance with the provisions of the Flood Risk Management Guidelines; L1 To contribute towards avoidance or, where infeasible, minimisation of conflicts with the appropriate protection of statutory designations relating to the landscape, including those included in the land use plans of planning authorities; CH1; To contribute towards the protection of archaeological heritage (including entries to the Record of Monuments and Places) and its context; CH2 To contribute towards the protection of architectural heritage (including entries to the Record of Protected Structures, entries to the National Inventory of Architectural Heritage and Architectural Conservation Areas) and its context; and S1 To minimise land take and loss to extent of soil resource.

⁹ Orderly development would be facilitated in some (dispersed) locations, including lands that have been zoned and subject to SEA, AA and SFRA. Also, an extent of potential increases in walking and cycling levels in urban areas as a means of avoiding congestion.

¹⁰ As a result of construction and operation of development provided for by the Strategy and other plans and programmes including those relating to land use.

¹¹ As a result of contributing towards the integration of land use development with sustainable transport provision and contributing towards sustainable mobility.

¹² As a result of construction and operation of development provided for by the Strategy and other plans and programmes including those relating to land use.

¹³ As a result of fully integrating land use development with sustainable transport provision and contributing towards sustainable mobility.

¹⁴ As a result of construction and operation of development provided for by the Strategy and other plans and programmes including those relating to land use.

The most preferable outcome from the environmental assessment of alternative investment scenarios is Scenario 3 "Better Integration of Land Use with Public Transport and Sustainable Travel". This is the investment scenario from which the sustainable transport measures proposed in the Strategy have been developed.

This alternative scenario represents the optimal case of full integration of land-use development with sustainable transport provision and would largely restrict one-off housing and under-planned greenfield development. Growth would be consolidated and intensified around suburban rail, light rail and high frequency bus corridors. This scenario would facilitate the greatest improvement in sustainable mobility of all alternatives, thereby facilitating the greatest reduction and limit of increases in greenhouse gas emissions, noise emissions and other emissions to air (with associated effects on human health).

Potentially significant adverse environmental effects would be mitigated by the various provisions that have been integrated into the Strategy (see Section 2 of this report).

3.4.2 Other Options Considered

3.4.2.1 Strategic Rail Corridor

A summary of the comparative evaluation of alternatives for the Strategic Rail Corridor that is provided in the SEA Environmental Report is provided on Table 3.2 below, with reference to Strategic Environmental Objectives (SEOs).

Table 3.2 Comparative Evaluation of Strategic Rail Corridor Options against SEOs

Alternative	Likely to Improve status of SEOs to a greater degree	Likely to Improve status of SEOs	Likely to Improve status of SEOs to a lesser degree	Least Potential Conflict with status of SEOs - likely to be mitigated	Potential Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - less likely to be mitigated
Option 1: Improvements to existing rail line and increase in services	✓	✓		✓	✓	
Option 2: Convert rail line to pedestrian and cycle path		✓	✓		✓	✓
Option 3: Cater for demand growth by car and increased road provision			✓			✓
Option 4: Cater for demand growth by car and increased bus service provision		✓			✓	
Option 5: Convert rail line and services to Light Rail Transit	✓			✓		

Taking into account the multi-criteria assessment for Strategic Rail Corridor Options (which was undertaken during the preparation of the Strategy) and the comparative evaluation against SEOs provided on Table 3.2, Option 1 "Improvements to existing rail line and increase in services" was considered to be the preferred option for the Strategy, providing the most benefits overall while maximising the economic benefits.

3.4.2.2 Strategic East-West Corridor

A summary of the comparative evaluation of alternatives for the Strategic East-West Corridor that is provided in the SEA Environmental Report is provided on Table 3.3 below, with reference to the Strategic Environmental Objectives (SEOs).

Table 3.3 Comparative Evaluation of Strategic East-West Corridor Options against SEOs

Alternative	Likely to Improve status of SEOs to a greater degree	Likely to Improve status of SEOs	Likely to Improve status of SEOs to a lesser degree	Least Potential Conflict with status of SEOs - likely to be mitigated	Potential Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - less likely to be mitigated
Option 1: Bus services			✓			✓
Option 2: Bus Rapid Transit		✓			✓	
Option 3: Light Rail Transit	✓			✓		
Option 4: Suburban Rail		✓	✓		✓	
Option 5: Metro	✓		✓	✓	✓	

Taking into account the multi-criteria assessment for Strategic East-West Corridor Options (which was undertaken during the preparation of the Strategy) and the comparative evaluation against SEOs provided on Table 3.3, both “Option 2 Bus Rapid Transit” and “Option 3 Light Rail Transit” rank well, with “Option 3 Light Rail Transit” coming out highest across all criteria. On this basis the “Option 3 Light Rail Transit” is considered the preferred option, however, this would ultimately require further demand and patronage analysis, and cost benefit analysis to confirm this.

3.4.2.3 Public Transport Corridors Mode Capacities and Route Alignment

A summary of the comparative evaluation of alternatives for the Public Transport Corridors Mode Capacities and Route Alignment that is provided in the SEA Environmental Report is provided on Table 3.4 below, with reference to Strategic Environmental Objectives (SEOs).

Taking into account the multi-criteria assessment for Public Transport Corridors Mode Capacities and Route Alignment Options (which was undertaken during the preparation of the Strategy) and the comparative evaluation against SEOs provided on Table 3.4, “Option 1 Bus Services” and Option 2 “Bus Rapid Transit” are considered to be the preferential options, providing the most benefits overall while maximising the economic benefits. Both provide consistent benefits in general. The difference between the two however, can only really be determined through further demand and patronage analysis and cost benefit analysis.

Table 3.4 Comparative Evaluation of Public Transport Corridors Mode Capacities and Route Alignment Options against SEOs

Alternative	Likely to Improve status of SEOs to a greater degree	Likely to Improve status of SEOs	Likely to Improve status of SEOs to a lesser degree	Least Potential Conflict with status of SEOs - likely to be mitigated	Potential Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - less likely to be mitigated
Option 1: Bus services			✓		✓	
Option 2: Bus Rapid Transit		✓			✓	
Option 3: Light Rail Transit	✓			✓		

3.4.2.4 Road Network Options

A summary of the comparative evaluation of alternatives for the Road Network Options that is provided in the SEA Environmental Report is provided on Table 3.5 below, with reference to the Strategic Environmental Objectives (SEOs).

Table 3.5 Comparative Evaluation of Road Network Options against SEOs

Alternative	Likely to Improve status of SEOs to a greater degree	Likely to Improve status of SEOs	Likely to Improve status of SEOs to a lesser degree	Least Potential Conflict with status of SEOs - likely to be mitigated	Potential Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - less likely to be mitigated
Option 1A: Linkage from N20 to M8		✓			✓	
Option 1B: Combined Strategic and Local Linkage			✓		✓	
Option 2A: Direct linkage from N20 and N40		✓			✓	
Option 2B: Combined Strategic and Local Linkage from N20 to N40			✓		✓	
Option 3: Local Linkage from N20 to N8	✓	✓		✓		
Option 4: Linkage from N20 to Lee Road	✓	✓		✓		

Reviewing the multi-criteria assessment for these options, it was recommended the local distributor type Cork Northern Distributor Road catering for the northeast and northwest quadrants of Cork City, a combination of Options 3 and 4. This Cork Northern Distributor Road would provide for local transport needs, multi-modal requirements, and enable the accommodation of strategic traffic away from Cork City Centre.

However, it is understood that the NDP has identified the M20 Cork – Limerick Motorway and the Cork Northern Ring Road linkage from the M20 to Dunkettle Interchange. Taking the requirements of the NDP into consideration would require a Strategic Direct link from the M20 to the M8, similar in form and function to Option 1 identified above. In this context both the Strategic Cork Northern Ring Road and Local Cork Northern Distributor Road networks would be provided, one to cater for the local requirements and the other to cater for the strategic requirements. Both routes would provide complementary functions, in keeping with 'Spatial Planning and National Roads' guidance.

As detailed in the Strategy, as part of the N/M20 Cork to Limerick Road Improvement Scheme, Transport Infrastructure Ireland will examine the inclusion of the Cork Northern Ring Road linking the N20 to Dunkettle Interchange. The National Development Plan indicates that the Cork Northern Ring Road is a complementary but independent scheme to the N/M20 corridor scheme. However, its requirements, scale (based on demand levels) and justification will be considered and assessed as part of the appraisal process for the overall M20 scheme. Whilst it is envisaged that the Cork Northern Ring Road would not be delivered in advance of the substantive public transport elements of the Strategy, the appraisal process for the N/M20 Scheme will consider implementation and delivery in great detail. In line with the National Development Plan, the requirement for the Cork Northern Ring Road will be determined in accordance with DTTAS Guidance for scheme appraisal and Transport Infrastructure Ireland Project Appraisal Guidelines for National Roads (PAG) including a Route Options Assessment and Business Case. This Assessment should include the examination of a potential link from the N22 to the M8 and if required, designed in such a fashion that prioritises and safeguards the strategic traffic function of the route. Subject to the appraisal outcomes of the N/M20 Cork to Limerick Road Improvement Scheme, it is expected that the Cork Northern Ring Road project will be planned for implementation during the latter period of the Strategy. The finalisation of a route corridor and its protection from development intrusion is an objective of the Strategy to allow for changing circumstances including potentially an earlier project delivery requirement.

Section 4 AA Determination



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**Appropriate Assessment Determination under the
European Communities (Birds and Natural Habitats) Regulations, 2011 (as amended)
for the
Cork Metropolitan Area Transportation Strategy 2040**

An Appropriate Assessment (AA) Determination, pursuant to Article 6(3) of the Habitats Directive, as to whether the Cork Metropolitan Area Transportation Strategy 2040 would adversely affect the integrity of a European Site, and Regulation 42 (11) of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended), is being made by the National Transport Authority.

In carrying out this AA, the National Transport Authority is taking into account the relevant matters specified under Regulation 42 (12) of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended). The AA Natura Impact Report (which considers other plans and projects) has been carefully considered and its reasoning and conclusion agreed with and adopted. All other documents prepared and submitted during the preparation process for the Strategy were also considered in making this determination, including the Strategy to be finalised and written submissions made on the Draft Strategy and associated documents while they were on public display.

It is determined that the risks to the safeguarding and integrity of the qualifying interests and conservation objectives of the Natura 2000 network have been addressed by the inclusion of achievable mitigation measures that will prioritise the avoidance of impacts in the first place and reliably mitigate these impacts where they cannot be avoided. In addition, all lower level plans and projects arising through the implementation of the Strategy will themselves be subject to AA as relevant when further details of design and location are known.

Having incorporated these mitigation commitments; it is determined that implementation of the Cork Metropolitan Area Transportation Strategy 2040 will not have a significant adverse effect on the ecological integrity of any European Site, either individually or in combination with any other plan or project¹. Therefore, no further assessment is required.

Date: 05/03/2020

Signed: 
Signatory
Approved Officer

¹ Except as provided for in Article 6(4) of the Habitats Directive, viz. There must be:
a) No alternative solution available,
b) Imperative reasons of overriding public interest for the plan to proceed; and
c) Adequate compensatory measures in place.