

# **APPROPRIATE ASSESSMENT (AA)**

## **CONCLUSION STATEMENT**

---

### **FOR THE**

## **WATERFORD METROPOLITAN AREA TRANSPORT STRATEGY 2040**

**for: National Transport Authority**

Dún Scéine  
Iveagh Court  
Harcourt Lane  
Dublin 2



**by: CAAS Ltd.**

1<sup>st</sup> Floor  
24-26 Ormond Quay Upper  
Dublin 7



**DECEMBER 2022**

# Table of Contents

|                  |                                                                                                          |           |
|------------------|----------------------------------------------------------------------------------------------------------|-----------|
| <b>Section 1</b> | <b>Introduction and Background.....</b>                                                                  | <b>1</b>  |
| 1.1              | Introduction.....                                                                                        | 1         |
| 1.2              | Legislative Requirements in relation to AA .....                                                         | 1         |
| 1.3              | AA Conclusion Statement .....                                                                            | 1         |
| <b>Section 2</b> | <b>How the findings of the AA were factored into the Strategy .....</b>                                  | <b>2</b>  |
| <b>Section 3</b> | <b>Consideration of Alternatives .....</b>                                                               | <b>7</b>  |
| 3.1              | Need for the Strategy .....                                                                              | 7         |
| 3.2              | Existing provisions already in place .....                                                               | 7         |
| 3.3              | Alternatives Considered .....                                                                            | 7         |
| 3.4              | Summary of Evaluation of Alternatives .....                                                              | 9         |
| 3.5              | Reasons for Choosing the Selected Alternatives in light of Other Reasonable Alternatives Considered..... | 10        |
| <b>Section 4</b> | <b>AA Determination.....</b>                                                                             | <b>11</b> |

## List of Tables

|           |                                                                                                                                                |    |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Table 1.1 | Matters taken into account by the AA.....                                                                                                      | 1  |
| Table 2.1 | SEA/AA recommendations included within the Strategy that will contribute towards the protection of European sites .....                        | 2  |
| Table 2.2 | Provisions referred to in the Strategy under "Other SEA/AA Recommendations" that will contribute towards the protection of European sites..... | 4  |
| Table 4.1 | Summary of Evaluation of Alternatives for all Corridors .....                                                                                  | 9  |
| Table 4.2 | Selected Options for the Strategy for each Corridor .....                                                                                      | 10 |

# Section 1 Introduction and Background

## 1.1 Introduction

This is the Appropriate Assessment (AA) Conclusion Statement for the Waterford 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 Statement should be read in conjunction with the Strategy and associated documents including the AA Natura Impact Statement (NIS).

## 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 NIS 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) | This AA Conclusion Statement accompanies the NIS that provides additional detail on European Sites.                                                   |
| (c) any supplemental information furnished in relation to any such report or statement                                                                                   |                                                                                                                                                       |
| (d) if appropriate, any additional information sought by the authority and furnished by the applicant in relation to a Natura Impact Report                              | Submissions made during the Strategy preparation/AA process did not necessitate updates being made to the AA NIS.                                     |
| (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         | Submissions received resulted in minor modifications being made to the original Draft Strategy. These modifications were subject to screening for AA. |
| (g) any other relevant information                                                                                                                                       |                                                                                                                                                       |
|                                                                                                                                                                          | A final AA NIS was prepared taking into account all of the above.                                                                                     |

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 (of this determination is provided 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 AA Conclusion 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 NIS (the AA NIS is accompanied by this AA Conclusion Statement and has informed the AA Determination – see Section 4).

Furthermore, as stated in the Draft "Development Plans Guidelines for Planning Authorities" (Department of Housing, Local Government and Heritage, 2021):

*"...There is a similar requirement to publish a determination relating to the AA that may have been undertaken. Under Article 6.3 of the Habitats Directive the determination (often termed an 'AA Conclusion Statement') must state as to whether or not the Draft Plan would adversely affect the integrity of a European site. However as stated in Section 3.5, this determination must have been made prior to the adoption of the Draft Plan."*

As recommended, this AA Conclusion Statement addresses the above issues, including the signed AA Determination included at Section 4.

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

The SEA and AA team worked with the Strategy-preparation team at the NTA in order to integrate requirements for environmental protection and management into the Plan.

The Strategy was prepared in an iterative manner whereby the Strategy and AA documents have informed subsequent versions of the other. The findings of the AA were integrated into the Strategy through mitigation measures. These mitigation measures ensure that there will be no significant effects to the ecological integrity of any European site from implementation of the Strategy. The mitigation measures most relevant to the protection of European sites are identified in Table 2.1 and Table 2.2 below.

**Table 2.1 SEA/AA recommendations included within the Strategy that will contribute towards the protection of European sites**

| Strategy Section No.                        | SEA/AA Recommended Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 17. Environmental Protection and Management | <p><b>Introduction</b></p> <p>Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) have both been undertaken alongside the preparation of the Strategy. All recommendations arising from the SEA and AA processes have been integrated into the Strategy. Many of these recommendations have been set out in the SEA Environmental Report; however, some of the more strategic recommendations are detailed below. Compliance with these measures will facilitate environmental protection and management.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 17. Environmental Protection and Management | <p><b>Regulatory Framework for Environmental Protection and Management</b></p> <p>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 and will ensure that plans, programmes and projects comply with EU Directives, including the Habitats Directive (92/43/EEC), 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.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 17. Environmental Protection and Management | <p><b>Lower-level Decision Making</b></p> <p>Lower levels of decision making and environmental assessment should consider the environmental sensitivities identified in Section 4 of the SEA Environmental Report, including the following:</p> <ul style="list-style-type: none"> <li>• Special Areas of Conservation and Special Protection Areas;</li> <li>• Features of the landscape that provide linkages/connectivity to designated sites (e.g. watercourses and areas of semi-natural habitat, such as linear woodlands);</li> <li>• Salmonid Waters;</li> <li>• Shellfish Waters;</li> <li>• Freshwater Pearl Mussel catchments;</li> <li>• Nature Reserves;</li> <li>• Natural Heritage Areas and proposed Natural Heritage Areas;</li> <li>• Areas likely to contain a habitat listed in Annex 1 of the Habitats Directive;</li> <li>• Entries to the Record of Monuments and Places and Zones of Archaeological Potential;</li> <li>• Entries to the Record of Protected Structures;</li> <li>• Un-designated sites of importance to wintering or breeding bird species of conservation concern;</li> <li>• The National Biodiversity Action Plan;</li> <li>• Architectural Conservation Areas; and</li> <li>• Relevant landscape designations.</li> </ul> <p>Where developments, arising from this strategy, do not require Environmental Impact Assessment, the implementing agency/agencies will consider the preparation of a non-statutory Ecological Impact Assessment (EcIA) in order to assess the potential impacts to biodiversity.</p>                                                                                                                                                                                                                                          |
| 17. Environmental Protection and Management | <p><b>Corridor and Route Selection Process</b></p> <p>The following Corridor and Route Selection Process will be undertaken for relevant infrastructure:</p> <p>Stage 1 – Route Corridor Identification, Evaluation and Selection</p> <ul style="list-style-type: none"> <li>• 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;</li> <li>• 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 relevant specialists; and</li> <li>• In addition to the constraints identified above, site-specific field data may be required to identify the most appropriate corridors.</li> </ul> <p>Stage 2 – Route Identification, Evaluation and Selection</p> <ul style="list-style-type: none"> <li>• 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 relevant specialists, taking into account project level information and potential mitigation measures that are readily achievable;</li> <li>• In addition to the constraints identified above, site-specific field data may be required to identify the most appropriate routes; and</li> <li>• In addition to environmental considerations, the identification of route corridors and the refinement of the route lines is likely to be informed by other considerations.</li> </ul> |

| Strategy Section No.                        | SEA/AA Recommended Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 17. Environmental Protection and Management | <p><b>Appropriate Assessment</b></p> <p>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> <ul style="list-style-type: none"> <li>• The Plan or project will not give rise to adverse direct, indirect or secondary effects on the integrity of any European site (either individually or in combination with other plans or projects); or</li> <li>• 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</li> <li>• 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.</li> </ul> |
| 17. Environmental Protection and Management | <p><b>Protection of Natura 2000 Sites</b></p> <p>No plans or projects giving rise to adverse effects on the integrity of European sites (cumulatively, directly or indirectly) 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 projects)<sup>1</sup>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 17. Environmental Protection and Management | <p><b>Climate Change, Emissions and Energy</b></p> <p>As identified in the SEA Environmental Report that accompanies this Strategy, the Strategy facilitates sustainable mobility and associated positive effects, including those relating to:</p> <ul style="list-style-type: none"> <li>• Reductions in greenhouse gas emissions and associated achievement of legally binding targets;</li> <li>• Reductions in emissions to air and associated achievement of air quality objectives, thereby contributing towards improvement of air quality and protection of human health;</li> <li>• Reductions in consumption of non-renewable energy sources and achievement of legally binding renewable energy targets; and</li> <li>• Energy security.</li> </ul> <p>In implementing the Strategy, the Authority will support relevant provisions contained in the following documents (and any superseding revisions of same): National Energy and Climate Plan (2021); the Waterford Climate Change Adaptation Strategy (2019); the Climate Action Plan (2021); the National Climate Change Adaptation Framework (2018); and the Department of Transport's Climate Change Sectoral Adaptation Plan for Transport Infrastructure (2019), which builds on the 2017 "Adaptation Planning – Developing Resilience to Climate Change in the Irish Transport Sector".</p> <p>Cognisant of the imperative to reduce emissions, the Authority will seek to ensure primacy for transport options that provide for unit reductions in carbon emissions. This can most effectively be done by promoting public transport, walking and cycling, and by actively seeking to reduce car use in circumstances where alternative options are available.</p> <p>During the preparation and/or review of policies and plans relating to climate change, carbon emissions and energy usage, the Authority will seek to integrate Strategy objectives, as appropriate.</p>                                                                                                                                                       |
| 17. Environmental Protection and Management | <p><b>Other SEA/AA Recommendations</b></p> <p>In implementing the Strategy, the Authority will ensure that the measures included in Table 9.2 of the SEA Environmental Report and Table 5.1 of the AA Natura Impact Statement are complied with. These measures encompass:</p> <ul style="list-style-type: none"> <li>• Contributing towards compliance with relevant National Legislation (including the Wildlife Acts 1976 and 2010, as amended).</li> <li>• A variety of measures relating to the protection, conservation and enhancement of biodiversity.</li> <li>• Annex IV species under the Habitats Directive.</li> <li>• Ensuring the undertaking of appropriately detailed surveying and assessment at project/EIA level.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

<sup>1</sup> 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 project to proceed; and c) Adequate compensatory measures in place.

**Table 2.2 Provisions referred to in the Strategy under “Other SEA/AA Recommendations” that will contribute towards the protection of European sites**

| Environmental component directly benefitting | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Various                                      | <p><b>Construction and Environmental Management Plans</b></p> <p>Construction Environment Management Plans (CEMPs) shall be prepared in advance of the construction of relevant 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"> <li>location of the sites and materials compound(s) including area(s) identified for the storage of construction refuse,</li> <li>location of areas for construction site offices and staff facilities,</li> <li>details of site security fencing and hoardings,</li> <li>details of on-site car parking facilities for site workers during the course of construction,</li> <li>details of the timing and routing of construction traffic to and from the construction site and associated directional signage,</li> <li>measures to obviate queuing of construction traffic on the adjoining road network,</li> <li>measures to prevent the spillage or deposit of clay, rubble or other debris,</li> <li>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,</li> <li>details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels,</li> <li>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,</li> <li>disposal of construction/demolition waste and details of how it is proposed to manage excavated soil,</li> <li>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,</li> <li>details of a water quality monitoring and sampling plan.</li> <li>if peat is encountered - a peat storage, handling and reinstatement management plan.</li> <li>measures adopted during construction to prevent the spread of invasive species (such as Japanese Knotweed).</li> <li>appointment of an ecological clerk of works at site investigation, preparation and construction phases.</li> <li>details of appropriate mitigation measures for lighting specifically designed to minimise impacts to biodiversity and ecological functioning.</li> </ol> |
| Air and Climatic Factors                     | <p><b>Air and Energy</b></p> <ul style="list-style-type: none"> <li>Contribute towards: compliance and consistency with air quality legislation and the National Clean Air Strategy, the National Air Pollution Control Programme, the National Climate Action Plan, the National Policy Framework for Alternative Fuels Infrastructure for Transport and the Department of Transport's Smarter Travel – A Sustainable Transport Future; greenhouse gas emission targets; management of noise levels, including taking into account available noise maps and Noise Action Plans (including provisions relating to the preservation of Quiet Areas); and reductions in energy usage.</li> </ul> <p><b>Climate Adaptation and Resilience</b></p> <ul style="list-style-type: none"> <li>Improve resilience and adaptation to climate change by taking into account issues including the following in the siting and design of projects:</li> <li>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;</li> <li>Sea level rise and storm surge and associated implications including those relating to coastal erosion and coastal/estuarine flooding; and</li> <li>Extreme temperatures and associated implications including those relating to the operation of transport and ancillary infrastructure and services.</li> </ul> <p><b>Noise</b></p> <ul style="list-style-type: none"> <li>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 (including provisions relating to the preservation of Quiet Areas) and the National Planning Framework National Policy Objective 65 to 'Promote the pro-active management of noise where it is likely to have significant adverse impacts on health and quality of life and support the aims of the Environmental Noise Regulations through national planning guidance and Noise Action Plans'; and reductions in energy usage.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Population and human health                  | <p><b>Human Health</b></p> <ul style="list-style-type: none"> <li>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.</li> </ul> <p><b>Green/Blueways and Existing Green Infrastructure</b></p> <ul style="list-style-type: none"> <li>Proposals for greenway/blueway development should contribute towards the protection or enhancement of existing green infrastructure and have regard to the EPA and HSE research and associated toolkits into the benefits of blue and green spaces.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

| Environmental component directly benefitting | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Biodiversity and flora and fauna</b>      | <p><b>Protection of Biodiversity including Natura 2000 Network</b></p> <ul style="list-style-type: none"> <li>Contribute, as appropriate, towards the protection of designated ecological sites including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); Salmonid Waters; Shellfish Waters; Freshwater Pearl Mussel catchments; Flora Protection Order sites and species; Wildlife sites (including Nature Reserves); 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).</li> <li>Contribute towards compliance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines, including the following and any updated/superseding documents):</li> <li>EU Directives, including the Habitats Directive (92/43/EEC, as amended)<sup>2</sup>, the Birds Directive (2009/147/EC)<sup>3</sup>, the Environmental Liability Directive (2004/35/EC)<sup>4</sup>, 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).</li> <li>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 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 2008 (as amended)<sup>5</sup> and the Flora Protection Order 2015.</li> <li>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 2021 and Appropriate Assessment Guidance 2010.</li> <li>Catchment and water resource management Plans, including the relevant River Basin Management Plan and Flood Risk Management Plan (including any superseding versions of same).</li> <li>Biodiversity Plans and guidelines, including the 3<sup>rd</sup> National Biodiversity Plan 2017-2023 (including its measures relating to ecological corridors and any superseding version of same) and the All Ireland Pollinator Plan.</li> <li>Freshwater Pearl Mussel Regulations (S.I. 296 of 2009) (including any associated designated areas or management plans).</li> <li>Ireland's Environment 2020 - An Assessment (EPA, 2020, including any superseding versions of same), and to make provision where appropriate to address the report's goals and challenges.</li> </ul> |
|                                              | <p><b>NPWS &amp; Integrated Management Plans</b></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><b>Coastal Zone Management</b></p> <ul style="list-style-type: none"> <li>Support measures to protect the coast, the coastal edge and coastal/estuarine habitats; and facilitate an Integrated Coastal Zone Management approach to ensure the conservation, management and projection of man-made and natural resources of the coastal/estuarine zone.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                              | <p><b>Biodiversity and Ecological Networks</b></p> <ul style="list-style-type: none"> <li>Contribute towards the protection, conservation and enhancement of biodiversity and ecological connectivity, including field boundaries, 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. Where field boundaries must be removed, mitigation measures, aimed at ensuring that habitat fragmentation does not occur, should be considered and incorporated where relevant. Where practicable and relevant, opportunities will be explored as to how to address any inadequate existing mitigation measures or impeded passage when existing roads are being improved or upgraded.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                              | <p><b>Protection of Riparian Zone and Waterbodies and Watercourses</b></p> <ul style="list-style-type: none"> <li>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/estuarine areas, as appropriate.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                              | <p><b>Biodiversity including non-designated biodiversity</b></p> <ul style="list-style-type: none"> <li>Ensure the undertaking of appropriately detailed surveying and assessment at project/EIA level (including fulfilling requirements under the Wildlife Acts) and minimisation of loss of biodiversity, including hedgerows, old trees, tree lines, areas of vegetation or species such as Barn Owl (the Transport Infrastructure Ireland Publication 'Survey and Mitigation Standards for Barn Owls to inform the Planning, Construction and Operation of National Road Projects' should be considered in this regard), as a result of the development of new or widened infrastructure.</li> <li>Help to ensure the appropriate protection of non-designated habitat features, landscapes and biological diversity. Where possible, to strive to achieve no net loss of these features as a result of new development granted permission under the Plan.</li> <li>Contribute towards the protection and management of fisheries<sup>6</sup> as appropriate and take into account Inland Fisheries Ireland's "Planning for Watercourses in the Urban Environments" (2020) for developments along watercourses.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

<sup>2</sup> Including Annex I habitats, Annex II species and their habitats and Annex IV species and their breeding sites and resting places (wherever they occur).

<sup>3</sup> Including Annex I species and other regularly occurring migratory species, and their habitats (wherever they occur).

<sup>4</sup> Including protected species and natural habitats.

<sup>5</sup> Including protected species and natural habitats.

<sup>6</sup> Including with regard to water quality, surface water hydrology, fish spawning and nursery areas, passage of migratory fish, ecosystem structure and functioning and sport and commercial fishing and angling resources.

| Environmental component directly benefitting | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                              | <p><b>Lighting Sensitive Species</b></p> <ul style="list-style-type: none"> <li>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 and their selection consider EUROBATs and Dark Sky lighting recommendations, thereby contributing towards the protection of amenity and the protection of light sensitive species such as bats.</li> </ul> <p><b>Non-native invasive species</b></p> <ul style="list-style-type: none"> <li>Support, as appropriate, both the National Parks and Wildlife Service's and Local Authority'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.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Material Assets</b>                       | <p><b>Construction Waste</b></p> <p>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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Water</b>                                 | <p><b>Water Framework Directive and associated legislation</b></p> <p>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><b>River Basin Management Plan</b></p> <p>Support the implementation of the relevant recommendations and measures as outlined in the most up to date River Basin Management Plan, and associated Programme of Measures. 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><b>Flood Risk Management Guidelines</b></p> <p>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><b>Surface Water Drainage and Sustainable Drainage Systems (SuDs)</b></p> <p>Ensure that new development is adequately serviced with surface water drainage infrastructure and promote the use of Sustainable Drainage Systems as appropriate.</p> |
| <b>Landscape</b>                             | <p><b>Landscape Designations</b></p> <ul style="list-style-type: none"> <li>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.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Soil</b>                                  | <p><b>Soil Protection and Contamination</b></p> <ul style="list-style-type: none"> <li>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.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |



## Section 3 Consideration of Alternatives

AA considerations relating to European sites informed the Strategic Environmental Assessment (SEA) process, including the consideration of reasonable alternatives.

### 3.1 Need for the Strategy

The Metropolitan Area Strategic Plan (MASP) for Waterford provides for the preparation of the preparation of the Waterford Metropolitan Area Transport Strategy 2040 (WMATS) through Policy Objective "Integration of Land Use and Transport" 6 (a):

"Prepare WMATS during the lifetime of this MASP and ensure investment and implementation of WMATS".

### 3.2 Existing provisions already in place

The Strategy aligns with legislation and documents setting out public policy for land use, transport and climate action and will be incorporated into the review and preparation of these documents. These include the National Planning Framework (and associated National Development Plan), the Strategic Investment Framework for Land Transport, the National Investment Framework for Transport in Ireland, the Regional Economic and Spatial Strategy for the Southern Region (as adopted by the Southern Regional Assembly) and associated MASP, the City and County Development Plans, Local Area Plans and Planning Schemes. Certain transport related proposals already provided for by these documents (and considered by their environmental assessments) are amongst those included within the Strategy. This Transport Strategy is based on national policies on sustainability as set out in the Climate Action Plan and recent climate action legislation.

### 3.3 Alternatives Considered

The provision of an enhanced public transport network within the WMA is a key priority for the Strategy.

Six guiding principles for successful public transport networks were set out to help in the early development and assessment of options. The adoption of these principles will result in an attractive public transport service that provides a realistic alternative to the private car.

Key strategic public transport corridors (A, B, C, D and E&F) and supporting public transport services for the wider WMA were identified, underpinned by these principles. Once a high-level indicative public transport network was identified, more detailed analysis and specific considerations for the public transport network were addressed at a corridor level.

Within each specific corridor of the WMA, the public transport proposals were developed based on the identified public transport demand from the 'idealised' network analysis. Further details on the methodology employed can be found in the supporting Demand Analysis Report and Transport Options and Network Development Report.

The identification of the appropriate infrastructure to service the demand levels for each corridor was based on a typical range of public transport capacities that can be achieved by Bus, Bus Rapid Transit (BRT), Light Rail Transit (LRT) and Heavy Rail.

With respect to the walking, cycle and road networks:

- The Walking Network in the Strategy focuses on the existing and proposed Development Plans and Local Area Plans from both Local Authorities. These plans were reviewed to enhance integration and connectivity with the measures for the cycle, public transport and road network.

- The Cycle Network in the Strategy is fundamentally based on the proposals contained within the Draft Cycle Network Plan for Waterford City and Environs 2014. This Cycle Plan was reviewed to ensure integration with the proposals for public transport, walking and roads within the Strategy.
- A review of committed and proposed road schemes was undertaken as part of the Strategy development and aligned to policy within the WMA. The road network was also reviewed with the aim of supporting new public transport, walking and cycling provision.

The following Public Transport Network Options were considered for each of the Public Transport Corridors (A, B, C, D and E&F):

- Option 1: Bus Services;
- Option 2: Bus Rapid Transit;
- Option 3: Light Rail Transit; and
- Option 4: Suburban Rail.

### 3.4 Summary of Evaluation of Alternatives

A summary of the evaluation of alternatives for all each of the Public Transport Corridors (A, B, C, D and E&F) is provided on Table 3.1.

**Table 3.1 Summary of Evaluation of Alternatives for all Corridors**

| Alternative                   | Likely to <b>improve</b> status of the environment to a <b>greater</b> degree                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Less Potential Conflict</b> with status of the environment - likely to be mitigated                                                                                                               | <b>Moderate Potential Conflict</b> with status of the environment - likely to be mitigated                                                                                                                                                                                                                                                                                                                                            | <b>More Potential Conflict</b> with status of the environment - less likely to be fully mitigated                                                                                                                                                                                 | <b>Most Conflict</b> with status of the environment - less likely to be fully mitigated                                                                                                                                                                                  |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Option 1: Bus Services        | This option would improve the capacity of public transport and help to reduce congestion. Emissions (and associated interactions with human health) would be significantly lower per journey with this mode than would be the case with journeys by car. Energy security would be contributed towards. This option would also help to facilitate integration of land-use development with sustainable transport provision including appropriate levels of consolidated and intensified development around public transport networks. By facilitating consolidated and intensified development, this option would help to indirectly protect environmental components that might otherwise be impacted upon as a result of development that would potentially be spread out over greater areas and at a lower density. | As the bus-based network on this corridor under Option 1 Bus Services would be able to utilise existing road space, potential adverse direct environmental effects would be least under this option. | All options would facilitate new consolidated and intensified development, potentially indirectly affecting all environmental components.                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                          |
| Option 2: Bus Rapid Transport | This option would improve the capacity of public transport and help to reduce congestion. Emissions (and associated interactions with human health) would be significantly lower per journey with this mode than would be the case with journeys by car. Energy security would be contributed towards. This option would also help to facilitate integration of land-use development with sustainable transport provision including appropriate levels of consolidated and intensified development around public transport networks. By facilitating consolidated and intensified development, this option would help to indirectly protect environmental components that might otherwise be impacted upon as a result of development that would potentially be spread out over greater areas and at a lower density. |                                                                                                                                                                                                      | All options would facilitate new consolidated and intensified development, potentially indirectly affecting all environmental components.<br>Option 2 BRT would have a present a greater extent of potential adverse direct environmental effects in comparison to the bus services under Option 1, as Option 2 BRT would need more works and land to accommodate bus priority measures, junction widening and improved permeability. |                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                          |
| Option 3: Light Rail Transit  | This option would improve the capacity of public transport and help to reduce congestion. Emissions (and associated interactions with human health) would be significantly lower per journey with this mode than would be the case with journeys by car. Energy security would be contributed towards. This option would also help to facilitate integration of land-use development with sustainable transport provision including appropriate levels of consolidated and intensified development around public transport networks. By facilitating consolidated and intensified development, this option would help to indirectly protect environmental components that might otherwise be impacted upon as a result of development that would potentially be spread out over greater areas and at a lower density. |                                                                                                                                                                                                      | All options would facilitate new consolidated and intensified development, potentially indirectly affecting all environmental components.                                                                                                                                                                                                                                                                                             | Potential adverse direct environmental effects would be elevated under Option 3 Light Rail Transit due to the construction impacts arising, particularly on lands that are already developed and in a context where there is currently an absence of this type of infrastructure. |                                                                                                                                                                                                                                                                          |
| Option 4: Suburban Rail       | This option would improve the capacity of public transport and help to reduce congestion. Emissions (and associated interactions with human health) would be significantly lower per journey with this mode than would be the case with journeys by car. Energy security would be contributed towards. This option would also help to facilitate integration of land-use development with sustainable transport provision including appropriate levels of consolidated and intensified development around public transport networks. By facilitating consolidated and intensified development, this option would help to indirectly protect environmental components that might otherwise be impacted upon as a result of development that would potentially be spread out over greater areas and at a lower density. |                                                                                                                                                                                                      | All options would facilitate new consolidated and intensified development, potentially indirectly affecting all environmental components.                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                   | Potential adverse direct environmental effects would be most under Option 4 Suburban Rail due to the construction impacts arising, particularly on lands that are already developed and in a context where there is currently an absence of this type of infrastructure. |

### 3.5 Reasons for Choosing the Selected Alternatives in light of Other Reasonable Alternatives Considered

The options selected for the Strategy and the reasons for their selection are detailed on Table 3.2.

**Table 3.2 Selected Options for the Strategy for each Corridor**

| Corridor | Options Considered<br>(Selected Option(s) for the Strategy in <b>bold</b> )                                             | Reasons for Choosing the Selected Alternatives in light of Other Reasonable Alternatives Considered                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A        | <b>Option 1: Bus Services</b><br>Option 2: Bus Rapid Transit<br>Option 3: Light Rail Transit<br>Option 4: Suburban Rail | Alternatives have been selected taking into account the selected criteria (economy, environment, safety, integration and accessibility and social inclusion). "Option 1: Bus Services" is the preferred option for Corridor A based on the multi-criteria assessment, providing the most benefits in terms of Economy (return on investment), Environmental Impact and Integration. Bus Rapid Transit is not preferred given that the capacity of the bus-based option can cater for the travel demand on the corridor and provide more flexibility. However, it is acknowledged the bus network could be upgraded to a BRT type service in the future should demand exceed capacity. Travel demand, population and employment densities are below that required for any other alternative public transport measures along the corridor such as Light Rail and Heavy Rail. |
| B        | <b>Option 1: Bus Services</b><br>Option 2: Bus Rapid Transit<br>Option 3: Light Rail Transit<br>Option 4: Suburban Rail | Alternatives have been selected taking into account the selected criteria (economy, environment, safety, integration and accessibility and social inclusion). "Option 1: Bus Services" is considered to be the preferred option for Corridor B based on the multi-criteria assessment, providing the most benefits overall while maximising the economic benefits and cost efficiency. Travel demand, population and employment densities are below that required for any other alternative public transport measures along the corridor such as Bus Rapid Transit, Light Rail and Heavy Rail.                                                                                                                                                                                                                                                                             |
| C        | <b>Option 1: Bus Services</b><br>Option 2: Bus Rapid Transit<br>Option 3: Light Rail Transit<br>Option 4: Suburban Rail | Alternatives have been selected taking into account the selected criteria (economy, environment, safety, integration and accessibility and social inclusion). "Option 1: Bus Services" is considered to be the preferential option for Corridor C based on the multi-criteria assessment, providing the most benefits overall while maximising value for money. Travel demand, population and employment densities are below that required for any other alternative public transport measures along the corridor such as Bus Rapid Transit, Light Rail and Heavy Rail.                                                                                                                                                                                                                                                                                                    |
| D        | <b>Option 1: Bus Services</b><br>Option 2: Bus Rapid Transit<br>Option 3: Light Rail Transit<br>Option 4: Suburban Rail | Alternatives have been selected taking into account the selected criteria (economy, environment, safety, integration and accessibility and social inclusion). "Option 1: Bus Services" is considered to be the preferred options for Corridor D based on the multi-criteria assessment, providing the most benefits overall while maximising value for money. Bus Rapid Transit is not preferred given the capacity of a bus-based options can cater for the travel demand and provide more flexibility. However, the bus network could be upgraded to a BRT type service in the future should demand exceed capacity. Travel demand, population and employment densities are below that required for any other alternative public transport measures along the corridor such as Light Rail and Heavy Rail.                                                                |
| E&F      | <b>Option 1: Bus Services</b><br>Option 2: Bus Rapid Transit<br>Option 3: Light Rail Transit<br>Option 4: Suburban Rail | Alternatives have been selected taking into account the selected criteria (economy, environment, safety, integration and accessibility and social inclusion). "Option 1: Bus Services" is considered to be the preferred option based on the multi-criteria assessment, providing the most benefits overall while maximising the economic benefits. The corridor does not have the population or employment density to support a BRT or LRT line, while the creation of additional stations along the existing rail corridor would require substantial investment but would still not improve accessibility as the bus services provides greater coverage and flexibility in accessing the predominantly low-density residential areas in the corridor.                                                                                                                    |

## Section 4 AA Determination

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

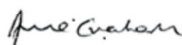
In order to comply with the requirements of the Habitats Directive and Regulation 42 (11) of the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. No. 477), as amended, this determination is being made by the National Transport Authority as to whether the Waterford Metropolitan Area Transport Strategy 2040 to be finalised (incorporating the Draft Strategy that was placed on public display and subsequent modifications) would adversely affect the integrity of any European site.

In carrying out this AA, the National Transport Authority is taking into account all relevant matters specified under Regulation 42 (12) of the European Communities (Bird and Natural Habitats) Regulations 2011 (as amended). The AA Natura Impact Statement, 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, special conservation interests and conservation objectives of the European sites have been addressed by the inclusion of mitigation measures that will prioritise the avoidance of effects in the first place and mitigate effects where these cannot be avoided. In addition, all lower-level plans and projects arising through the implementation of the Strategy will themselves be subject to AA when further details of design and location are known.

In-combination effects from interactions with other plans and projects was considered in the assessment and the mitigation measures incorporated into the Strategy are seen to be robust to ensure there will be no significant adverse effects as a result of the implementation of the Strategy either alone or in-combination with other plans/projects.

Having incorporated mitigation measures<sup>1</sup>, it is determined that the Waterford Metropolitan Area Transport Strategy 2040 to be finalised (incorporating the Draft Strategy that was placed on public display and subsequent modifications) is not foreseen to give rise to any significant adverse effect on the integrity of any designated European site, alone or in combination with other plans or projects<sup>2</sup>. This evaluation is made in view of the conservation objectives of the habitats or species, for which these sites have been designated. Therefore, no further assessment is required.



**Signatory:** \_\_\_\_\_  
**Anne Graham**

**Date:** 12<sup>th</sup> Dec. 2022

<sup>1</sup> These are: Chapter 17 "Environmental Protection and Management" (under "Regulatory Framework for Environmental Protection and Management", "Lower-level Decision Making", "Corridor and Route Selection Process", "Appropriate Assessment", "Protection of Natura 2000 Sites", "Climate Change, Emissions and Energy" and "Other SEA/AA Recommendations").

"Other SEA/AA Recommendations" comprise those under the headings of "Construction and Environmental Management Plans", "Air and Energy", "Climate Adaptation and Resilience", "Noise", "Human Health", "Green/Blueways and Existing Green Infrastructure", "Protection of Biodiversity including Natura 2000 Network", "NPWS & Integrated Management Plans", "Coastal Zone Management", "Biodiversity and Ecological Networks", "Protection of Riparian Zone and Waterbodies and Watercourses", "Biodiversity including non-designated biodiversity", "Lighting Sensitive Species", "Non-native invasive species", "National Peatlands Strategy", "Construction Waste", "Water Framework Directive and associated legislation River Basin Management Plan", "Flood Risk Management Guidelines", "Surface Water Drainage, Sustainable Drainage Systems (SuDs)", "Landscape Designations" and "Soil Protection and Contamination". For full detail, refer to Section 5 "Mitigation Measures" of this Statement.

<sup>2</sup> 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.