Department for Infrastructure

The Roads (Northern Ireland) Order 1993
The Local Government Act (Northern Ireland) 1972

DEPARTMENTAL STATEMENT

on the

PUBLIC INQUIRY INTO THE PROPOSED

A1 JUNCTIONS PHASE 2 ROAD IMPROVEMENT SCHEME:

Environmental Impact Assessment Report

Notice of Intention to Make a Direction Order

Notice of Intention to Make a Stopping-Up of Private Accesses Order

Notice of Intention to Make a Vesting Order

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January 2021

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1 CONTENTS OF DECISION

1.1 The Department for Infrastructure (DfI) has decided to proceed to progress the proposed A1 Junctions Phase 2 Road Improvement scheme, in readiness of funding becoming available. The scheme is as described in the Environmental Impact Assessment Report (EIAR), the draft Direction Order, the draft Vesting Order and the draft Stopping-Up (of Private Accesses) Order published by the Department for Infrastructure in March 2019.

1.2 The section of the A1 under consideration within the A1 Junctions Phase 2 project is a 25.2km long stretch of all-purpose dual carriageway, extending from the Hillsborough Roundabout to the north, to the Dublin Road Junction at Loughbrickland to the south. This section of dual carriageway has been subject to a series of staged improvements over a number of decades since 1971. Further detail on the improvements to the A1 are explained in Chapter 2 of this Departmental Statement.

1.3 The Proposed Scheme will include:

- Closure of all gaps in the central reserve between Hillsborough Roundabout and Loughbrickland and the provision of a continuous central reserve safety barrier.
- The construction of 4 new Compact Grade Separated Junctions (CGSJs) at:
    - Listullycurran Road
    - Gowdystown Road
    - Skeltons Road/Drumneath Road
    - Waringsford Road
- A northbound on-slip to the A1 from Castlewellan Road, Banbridge.
- Provision of a link road between Milebush Road and the Hillsborough Road underpass, Dromore.
- Closure of 9 selected side roads with improvements to the remainder of side roads which will operate as left-in / left-out only.

- Closure of a number of private accesses along the route with the remainder operating as left-in / left-out only.
- Closure of all mainline bus stops with new bus stops provided at the 4 new compact grade separated junctions.
- Provision of Intelligent Transport Systems (ITS) proposals including Variable Message Signs (VMS), Closed Circuit Television (CCTV) and Auto Number Plate Recognition (ANPR).

1.4 The scheme requirements will be as shown on the contract documents, specification and associated documents.

1.5 Sections 2, 3 and 4 set out the considerations on which the decision to proceed to progress the scheme is based and Section 5 describes the measures that will be incorporated to mitigate the adverse effects of the scheme and the most significant impacts arising from the scheme.

2 BASIS OF DECISION

2.1 EXISTING SITUATION

2.1.1 The A1 forms part of the Eastern Seaboard Key Transport Corridor providing access between Belfast and the border with the Republic of Ireland.

2.1.2 Based on the 2016 traffic surveys carried out for the Stage 3 development studies, the A1 caters for circa 26,000 vehicles per day[1] at the southern stretch of the proposed scheme, on the A1 close to Loughbrickland, increasing to circa 37,000 vehicles per day along the northern stretch of the proposed scheme, on the A1 close to Hillsborough.

2.1.3 Since the dualling of the A1 carriageway between Hillsborough and Dromore in 1971, the route has undergone a series of improvements over the past 40+ years.

2.1.4 In recent years, there has been significant investment in upgrades to the southern stretches of the A1. The A1 Loughbrickland to Beech Hill dual carriageway, completed in 2006, provides a central safety barrier with right turn crossing of the central reserve restricted to at grade junctions with the local minor road network. The A1/N1 cross border scheme, completed in 2007, upgraded the road to a high standard dual carriageway with access restricted to grade separated junctions only. Between Beech Hill and the border, completed in 2010, the A1 was further upgraded to high standard dual carriageway with access restricted to grade separated junctions and no direct access to adjacent land or property.

2.1.5 By contrast, along the northern section of the A1 between Hillsborough Roundabout and Loughbrickland, the existing road is a 2 lane dual carriageway with a central reserve of varying width which includes many gaps that permit crossing manoeuvres. The presence of these gaps directly contributes to the high number and severity of accidents[2] on this section of dual carriageway. In the period 2010-2017 inclusive, 45% of 195 accidents (Fatal, serious or slight) within the 25.2km scheme extents, occurred at or adjacent to a gap in the central reserve where manoeuvres such as right turns, u-turns, vehicles slowing for private accommodation gaps and vehicle overhang are possible.

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[1] A1 Junctions Phase 2 – Stage 3 Scheme Assessment Report – Appendix H - A1 Traffic Data Collection Report

[2] A1 Junctions Phase 2 – Stage 3 Scheme Assessment Report - 2.10.2 2010-2017 Accident Statistics - see page 64

2.1.6 The construction of four new compact grade separated junctions in 2007-2010 as part of the Design Build Finance and Operate Package 2 (DBFO2) contract allowed the closure of four of the most frequently used gaps in the central reserve and provided safer crossing opportunities. This addressed the high accident rates and the comparatively high number of right turn manoeuvres being undertaken at these locations. The four compact grade separated junctions constructed at that time are as follows from North to South:

- Dromore Road, Hillsborough;
- Banbridge Road, Dromore;
- Dromore Road, Banbridge; and
- Dublin Road, Loughbrickland.

2.1.7 With the construction of these junctions, there are now eight compact grade separated junctions along the A1 between Hillsborough Roundabout and Loughbrickland with other junctions located at:

- the compact connector road linking the northbound carriageway of the A1 at Dromore to Lurgan Road (completed in 1998);
- Rathfriland Road grade separated junction, Banbridge (completed in 2004);
- Hillsborough Road underpass, Dromore (completed in 2005); and
- Newry Road (Cascum Road), Banbridge (completed in 2007).

2.1.8 However the majority of the 36 minor road junctions, within the 25.2km length of the A1 project extents, operate as simple at grade junctions which allow traffic to make right turn movements across the dual carriageway though gaps in the central reserve.

2.1.9 Along the length of the project there remain a total of 111 gaps in the central reserve along this stretch of the A1, serving minor roads, residences, commercial premises and agricultural accesses. The 111 gaps allow cross-carriageway access to the 36 minor road junctions, 5 commercial premises, 22 residential properties, 31 agricultural accesses and 17 maintenance crossovers/other use. The gaps are also used by vehicles performing u-turn manoeuvres in addition to right turn manoeuvres crossing the carriageway.

2.1.10 As result of its staged development over several decades, the A1 dual carriageway between Hillsborough Roundabout and Loughbrickland is constructed to a lower standard than permitted by current standards.

2.1.11 The national speed limit for dual carriageways applies along the A1 except within the environs of Banbridge and Dromore where speed is restricted to a maximum of 60mph.

2.1.12 There are hard shoulders to both carriageways along the majority of the route with the exception of the Banbridge Bypass section of the A1, which features a 1m hard strip only.

2.1.13 There is little provision of pedestrian and cyclist facilities on the A1 dual carriageway. There are no dedicated equestrian facilities within the scheme extents. On account of the heavily trafficked, high-speed nature of the existing carriageway, pedestrian and cycling activity is minimal. However, footpaths incorporated into the proposed CGSJs will offer improved and safer connectivity between roads on each side of the A1 at these locations.

2.1.14 There are currently 37 bus stops along the mainline within the scheme extents. Existing bus stop facilities along the A1 are used by two bus services operated by Translink; the 38 and 538 services. In addition these bus stops are also used by a number of local school bus routes. The existing bus stop facilities range from a simple arrangement of paved area and flag post to covered bus shelters. There are no dedicated diverge, merge or layby facilities associated with these bus stops. Current bus stop usage figures provided by Translink show very low passenger numbers, with an average of 1-2 patrons per day at the more frequented bus stops. There are some bus stops on the route that do not see any regular use[3].

2.1.15 The minor road network surrounding the A1 within the study area ranges from rural lanes and thoroughfares up to A class roads. The A and B class roads which link into the A1 within the study area are as follows:

- A26 Newry Road/Dromore Road, Banbridge;
- A50 Castlewellan Road;
- B177 Dromore Road;

[3] A1 Junctions Phase 2 - Stage 3 Scheme Assessment Report - p30, Table 2.4 Bus Stop Usage Data (provided by Translink)

- B2 Hillsborough Road/Banbridge Road/Lurgan Road, Dromore;
- B25 Gowdystown Road;
- B10 Rathfriland Road; and
- B3 Grovehill Road/Main Street Loughbrickland.

These A and B roads within the minor road network provide transport links to the A1 for a number of towns and villages, local businesses as well as the wider local community.

2.1.16 There are also numerous C class roads and unclassified roads serving various hamlets, farms and individual dwellings in the area. The standard of the minor road network in the vicinity of the A1 varies significantly. Localised issues are present within the minor road network including sections of reduced visibility, inconsistent horizontal and vertical alignments and carriageway cross sections. Traffic volumes on the minor road network also vary significantly, however current traffic survey data indicates that generally the minor road network is lightly trafficked[4].

2.2 POLICY CONTEXT

2.2.1 The Department for Infrastructure is responsible for ensuring that the public road network is managed, maintained and developed. The Roads (Northern Ireland) Order 1993 defines the procedures to be followed when the Department proposes to build a new trunk road or carry out improvements to a road within the trunk road network.

2.2.2 The current programme to improve transportation links in Northern Ireland has evolved over the last twenty years or so. Key documents, strategies and announcements guiding this programme include:

[4] A1 Junctions Phase 2 – Stage 3 Scheme Assessment Report – Appendix H - A1 Traffic Data Collection Report

Policy Documents / References / Announcements	Publish Date
Shaping Our Future: the Regional Development Strategy for NI 2025 (RDS 2025)	September 2001
Regional Transportation Strategy for NI 2002 – 2012 (RTS)	July 2002
Regional Strategic Transport Network – Transport Plan 2015 (RSTN-TP)	March 2005
Investment strategy for NI (ISNI) 2005-2015	December 2005
Expanding the Strategic Road Improvement Programme 2015 Consultation Document	Mid-2006
Chancellor Announcement – Economic Prosperity and Stability in Northern Ireland	22 March 2007
North/South Ministerial Council, Plenary Meeting, Armagh, 17 July 2007, Joint Communiqué	17 July 2007
Investment Strategy for NI 2008 -2018	2008
Investment Delivery Plan for Roads (IDP) 2008	2008
Northern Ireland Executive Budget 2008 - 2011	2008
Programme for Government 2008 -2011	2008
Northern Ireland Executive Budget 2011 - 2015	2011
Programme for Government 2011-2015	2011
Announcement by Finance Minister - Financial Allocations	14 February 2012
The Regional Development Strategy 2035 (RDS 2035)	15 March 2012
Ensuring A Sustainable Transport Future: A New Approach to Regional Transportation (A New Approach)	28 March 2012
Investment Strategy for NI 2011 - 2021	2012
A Fresh Start: The Stormont Agreement and Implementation Plan	November 2015
Northern Ireland Executive Budget 2016-2017	January 2016
Draft Programme for Government Framework 2016 - 2021	May 2016
NI Executive's Outcomes Delivery Plan 2018-19	June 2018

2.2.3 The Regional Development Strategy for Northern Ireland 2025 (RDS) guided the development of Northern Ireland up to 2025 and beyond. The importance of the RDS is underpinned by Article 5 of the Strategic Planning (Northern Ireland) Order 1999 and was recognised in the Northern Ireland Executive's Programme for Government.

2.2.4 The Regional Transportation Strategy (RTS) supports the RDS and makes a significant contribution towards achieving the longer-term transportation vision contained within the RDS. The strategic direction and underlying principles of the RTS were agreed by the Northern Ireland Assembly in 2002.

2.2.5 The RTS envisaged significantly increased investment in Strategic Road Improvements (SRIs) recognising the key role that SRIs will play in delivering a modern, safe and sustainable transport system for Northern Ireland.

2.2.6 The Regional Strategic Transport Network Transport Plan 2015 (RSTNTP) is based on the guidance set out in the RDS and RTS. It sets out how the RTS will be implemented and confirms the individual schemes and projects to be implemented (subject to economic assessments, statutory processes and availability of resources) to support the RDS and RTS objectives and targets.

2.2.7 In recognition of the changing challenges facing the region, the Executive agreed that the Regional Development Strategy, which was published in 2002 and reviewed in 2008, needed to be revised. Following public consultation, the RDS 2035 was published on 15 March 2012. Whilst many of the objectives of the previous strategy are still valid, this document now replaces it.

2.2.8 A revised strategy document - Ensuring a Sustainable Transport Future - A New Approach to Regional Transportation was published on 28 March 2012. The New Approach to Regional Transportation compliments the Regional Development Strategy and aims to achieve its vision for transportation. One of the main Strategic Objectives of the Strategy is to *'improve connectivity within the region*' by completing the work identified in the current RSTNTP and Strategic Road Improvement Programme.

2.2.9 The consistent vision of these strategies is, "*to have a modern, sustainable, safe transportation system which benefits society, the economy and the environment and which actively contributes to social inclusion and everyone's quality of life*". The A1 scheme meets this vision by upgrading a strategically important route and improving safety along this 25.2km stretch of road.

2.2.10 Specific references to junction improvements / upgrades on the A1 (which includes this scheme) are included within the following documents:

- Regional Strategic Transport Network - Transport Plan 2015;
- Expanding the Strategic Road Improvement Programme 2015 – Consultation Document; and
- Investment Delivery Plan (IDP) for Roads.

2.2.11 The scheme will contribute to the New Decade New Approach (January 2020) 'Better Connecting Dublin and Belfast' strategy.

2.3 SCHEME BENEFITS AND OBJECTIVES

2.3.1 The A1 Dual Carriageway forms part of a strategically important north-south arterial route connecting the major cities and ports of Belfast and Dublin and is classified as a Key Transport Corridor (KTC) within the Regional Strategic Transport Network. The A1 forms part of the Eastern Seaboard Corridor, and had been the only KTC in Northern Ireland on the EU Core Network. The A1 acts as the key transport link for a number of communities along its corridor and is considered to have national, regional and local significance economically and socially.

2.3.2 The appraisal of proposals for improvement works are assessed against the Government's five criteria of Environment, Safety, Economy, Accessibility and Integration and also against the regional objectives:

- To improve health, safety and security;
- To support the spatial development in the Regional Development Strategy (RDS);
- To develop and maintain the RSTN TP for all users;
- To protect the natural and built environment;
- To support sustainable and economic growth; and
- To improve access to regional gateways.

2.3.3 The scheme specific objectives are:

- To improve safety for all road users;
- To provide a standard of route appropriate to its strategic function;
- To be affordable and provide value for money; and
- To improve journey times and journey time reliability for strategic A1 traffic.

2.3.4 The Department has undertaken a comprehensive analysis of the options for the Proposed Scheme, including a full Environmental Impact Assessment, which has identified appropriate mitigation measures that would be implemented in the future construction contract by the appointed Contractor.

2.3.5 The Proposed Scheme has a DfI approved Estimate Range of £65-£75 million. The economic assessment demonstrates that the Proposed Scheme provides a good economic return with a Benefit to Cost Ratio of 2.11 under the predicted traffic growth forecast over the 60 year economic life of the scheme.

2.3.6 The Department has considered the options available and concluded that implementation of the proposed scheme would greatly benefit both strategic and local road users by improving safety and improving journey time reliability on this 25.2km stretch of the A1, from Hillsborough Roundabout to Loughbrickland.

2.4 SCHEME HISTORY AND ALTERNATIVE SCHEMES

2.4.1 In March 2009, AECOM was commissioned by the Department for Regional Development (now DfI) to provide consultancy services in connection with the A1 Junctions Phase 2 Road Improvement Scheme, for Stages 1 and 2. In September 2015, RPS-SWECO was commissioned to carry out the Stage 3 scheme assessment. The development of this scheme has been carried out in accordance with the Department's procedures set out in RSPPG E030 and the requirements of the Design Manual for Roads and Bridges (DMRB).

2.4.2 A Preliminary Options Report which summarises the outcome of a DMRB Stage 1 Scheme Assessment was published in October 2011. The Stage 1 Assessment took

account of earlier studies[5] that identified the preferred strategy for this scheme which involved the closure of all central reserve gaps within the scheme extents and the provision of compact grade separated junctions to accommodate any displaced movements. The location of the compact grade separated junctions was determined based on the '5km' guide, whereby any resultant round trips would be limited to approximately 5km (RSPPG E038). This resulted in proposed compact grade separated junctions being sited at the following locations:

- Listullycurran Road;
- Gowdystown Road; and
- Skeltons Road/Drumneath Road.

2.4.3 A review of traffic movements at side roads along the A1 within the study area led to the inclusion of a compact grade separated junction at Waringsford Road and a proposed northbound onslip at Castlewellan Road.

2.4.4 The Stage 1 Preliminary Options Report was formally approved by the Investment Decision Maker (IDM) the then Roads Service Board and was published in October 2011. This is RSPPG E030 Gateway 0 Approval.

2.4.5 Following Gateway 0 Approval, a DMRB Stage 2 Scheme Assessment was carried out to identify a preferred scheme option. This Stage 2 assessment considered the likely environmental, engineering, economic and traffic advantages and disadvantages of potential options for each of the compact grade separated junction locations.

2.4.6 The assessment also identified the minor road junctions within the scheme extents to be retained as Left In – Left Out or closed. The assessment recommended the closure of the Milebush Road southern access to the A1 northbound carriageway based on its proximity to the existing Hillsborough Road CGSJ, Dromore. It also recommended that a new link road be provided to connect the northern connector road of the Hillsborough Road CGSJ to the Milebush Road.

[5] Roads Service papers: Median Closures Draft Appraisal Report (February 2005); A1 Strategy for Closing Gaps in the Central Median (July 2005); AECOM paper Median Closures Study – Draft Strategy Summary (November 2005); Proposed Upgrading of the A1 Junctions Strategy (April 2006)

2.4.7 The options being considered during Stage 2 were exhibited at a non-statutory public consultation event in three locations during November 2013, as noted below:

- 7 November 2013 at Old Hillsborough Courthouse;
- 13 November 2013 at Old Town Hall, Dromore; and
- 19 November 2013 at Old Town Hall, Banbridge.

The purpose of the event was to invite comments from the public on the options being considered. The findings from this consultation event were one of many factors taken into consideration during the assessment and identification of the preferred option. The Stage 2 Preferred Option Report was approved by the IDM on 10 March 2014 and subsequently published in December 2015. This is RSPPG E030 Gateway 1 Approval.

2.4.8 The Stage 2 Preferred Option was then further developed as part of the Stage 3 Scheme Assessment process into the Proposed Option. This development work included completing a full Environmental Impact Assessment (EIA) examining the impacts of the scheme under a range of headings, detailing the factors that would be put in place to mitigate the impact of the proposed changes.

2.4.9 During the Stage 3 Scheme Assessment process two further non-statutory community consultation events were convened during June 2017 and February 2018 at the same locations as identified in 2.4.7 above. As with the 2013 consultation event, the purpose of these events was to offer further opportunities for the public to engage in the design process so that their issues/concerns could be considered by the Project Team and to keep stakeholders informed of the developing design rationale.

2.4.10 The statutory changes to the trunk road network, in terms of designation of the roads, were also determined in the draft Direction Order, with the draft Vesting Order prepared to reflect and enable the necessary acquisition of lands.

2.5 STATUTORY PROCEDURES

2.5.1 The statutory procedures governing the construction and improvement of trunk roads are prescribed by The Roads (Northern Ireland) Order 1993 ("the 1993 Order"). These include the preparation of an Environmental Impact Assessment Report, a Direction Order describing the roads which are to become part of the trunk road

network, and a Vesting Order to acquire the land to facilitate construction of the road. The Roads (Amendment) (Northern Ireland) Order 2004 made provision for all or any of the above proceedings (so far as practicable) to be taken concurrently. A Stopping-Up (of Private Accesses) Order was also prepared to close a number of private accesses along the route.

2.5.2 The documents published for statutory public consultation on weeks commencing 25th March 2019 and 1st April 2019 included:

Notice of Intention to Make a Direction Order

- The proposal to make The Trunk Road T4 (Loughbrickland to Hillsborough) Order (Northern Ireland) 2019 under Articles 14(1), and 68(1), (3) and (5) of The Roads (Northern Ireland) Order 1993.

Notice of Intention to Make a Vesting Order

- The proposal to make an order under Article 113 of The Roads (Northern Ireland) Order 1993 and Schedule 6 to the Local Government Act (Northern Ireland) 1972 for the purpose of acquiring compulsorily the lands for the construction of the A1 Junctions Phase 2 Road Improvement Scheme.

Notice of Intention to Make a Stopping-Up (of Private Accesses) Order

- The proposal to make The Private Accesses on the Trunk Road T4 ("the A1 Junctions Phase 2 – Loughbrickland to Hillsborough") (Stopping-Up) Order (Northern Ireland) 2019 under Article 69(1) of The Roads (Northern Ireland) Order 1993 (b) and now vested in it(c).

Environmental Impact Assessment Report

- The Environmental Impact Assessment Report prepared by the Department for the proposal for the provision of the A1 Junctions Phase 2 Road Improvement Scheme together with opinions expressed in relation to it under the provision of Articles 67A(3) and (9) of the Roads (Northern Ireland) Order 1993.

2.6 ENVIRONMENTAL IMPACT ASSESSMENT

2.6.1 Environmental Impact Assessment (EIA) is the process of compiling, evaluating and presenting all the likely significant environmental effects of a proposed scheme. EC

Directive 2011/92/EU as amended by Directive 2014/52/EU, which deal with the assessment of the effects of certain public and private projects on the environment, were implemented in Northern Ireland pursuant to the powers conferred by section 2(2) of the European Communities Act 1972, such implementation to be found in Northern Ireland under the terms of the Roads (Northern Ireland) Order 1993 as amended by the Roads (Environmental Impact Assessment) Regulations (Northern Ireland) 2017 hereafter referred to as the EIA Regulations.

2.6.2 Under the EIA Regulations, there is a requirement for the Department to:

(a) Determine whether any proposed project falls within Annex I or Annex II of the EIA Directive; and,

(b) To publish any EIA determination they make in respect of a roads project.

2.6.3 Article 67 (4B) of the 1993 Roads Order directs that if the Department:

Considers that the project falls within Annex I; or is a relevant project falling within Annex II and determines that the project should be made subject to an environmental impact assessment it must prepare an environmental impact assessment report.

2.6.4 The EIA Screening Determination undertaken by the Department confirmed that the project fell within Annex II, Part 10 (e) – Construction of roads, harbours and port installations, including fishing harbours (projects not included in Annex 1, to the Directive). Having regard to the relevant legislation and the criteria contained within Annex 3 to the Directive it was determined that the project should be accompanied by an EIAR.

2.6.5 An environmental scoping report was prepared to identify the key topics and impacts it was proposed to address in the EIAR and to assist with the scoping exercise being undertaken. This helped to ensure compliance of the EIAR with the requirements of Article 67 of the Roads (NI) Order 1993 (as amended by the Roads [EIA] Regulations [NI] 2017). The scoping report was circulated to consultees to facilitate effective and accurate scoping of the environmental information required within the EIAR. The Scoping Report was issued to each of the consultees and feedback was requested regarding environmental matters for inclusion in the EIAR for the proposed scheme.

2.6.6 The EIAR has been prepared in accordance with Article 67 (5) of the 1993 Roads Order including:

(a) A description of the location of the project;

(b) A description of the physical characteristics of the project;

(c) A description of the relevant aspects/current state of the environment (baseline scenario); and;

(d) *A description of the likely significant effects of the project on the environment resulting from inter-alia, construction and operation of the project, use of natural resources, emission of pollutants, accumulation of effects and impact on climate*.

2.6.7 The EIAR details the findings of this EIA process and highlights the anticipated significant environmental issues identified for both the construction and operational phases of the Proposed Scheme. The EIAR presents the findings of an environmental assessment of the scheme and describes the measures proposed to mitigate impact on the natural and built environment.

2.6.8 The environmental assessment considers the impact in terms of Landscape and Visual; Soils, Geology and Contaminated Land; Water Environment; Biodiversity; Air Quality; Climate; Noise and Vibration; Traffic and Transport; Cultural Heritage; Population and Health; Land Use; Pedestrians, Cyclists, Equestrians & Community; Material Assets and Vehicle Travellers.

2.6.9 The Department considers that the EIAR, supported by the additional documentation published at consultation, has provided information which is reasonable and sufficient to allow the Department to reach a reasoned conclusion on the significant effects of the project on the environment, taking into account current knowledge and methods of assessment.

2.6.10 The Department is satisfied that the information contained in the EIA Report complies with the provisions of The Roads (Northern Ireland) Order 1993 as amended by The Roads (Environmental Impact Assessment) Regulations (Northern Ireland) 2017.

2.6.11 The data gathering and surveys carried out in support of the EIAR, which were completed between 2016 and 2019, are considered to remain relevant and current.

2.6.12 Having caused the examination of the environmental information which includes the EIAR, the consultation responses to the EIAR, together with the recommendations of the Inspector summarised in Sections 3 and 4 of this document, the Department is satisfied that the likely significant environmental effects of the proposed scheme have been assessed.

2.6.13 Following the examination of all of the environmental information, the Department has formed the reasoned conclusion, attached in Annex A below, and concluded that the proposed scheme will not have any significant adverse impacts on the natural or human environment (including designated sites and protected species) that cannot be addressed by the measures set out in Annex A.

2.7 HABITATS REGULATIONS ASSESSMENT (HRA) – APPROPRIATE ASSESSMENT

2.7.1 Following completion of a Stage 1 'Screening for Appropriate Assessment', a Stage 2 'Assessment of Implications on European sites' was completed. Both the Stage 1 and Stage 2 appraisals are set out in EIAR Appendix 9.4 Habitats Regulations Assessment ("HRA") report. This report was prepared by the RPS-Sweco Consortium on behalf of the Department in accordance with relevant European Commission guidance and UK Design Manual for Roads and Bridges (DMRB) Volume 11, Section 4, Part 1 (HD 44/09) Assessment of Implications (of Highways and/or Roads Projects) on European Sites (Including Appropriate Assessment) to assist the Department in fulfilling its duties in accordance with Regulation 43(1) of the Conservation (Natural Habitats, etc) Regulations (Northern Ireland) 1995 (as amended),which transposes certain aspects of Article 6(3) of Habitats Directive 92/43/EEC.

2.7.2 The HRA report was prepared on behalf of the Department to assess the effects of the A1 Junctions Phase 2 Road Improvement Scheme on the integrity of the Belfast Lough SPA, Belfast Lough Open Water SPA, the proposed East Coast (Northern Ireland) Marine SPA, Belfast Lough Ramsar Site, North Channel SAC, Lough Neagh and Lough Beg SPA, Lough Neagh and Lough Beg Ramsar Site, Carlingford Shore SAC, Carlingford Lough SPA (UK), Carlingford Lough (IE) and Carlingford Lough Ramsar Site.

2.7.3 The Stage 1 screening appraisal concluded that the possibility of likely significant water quality or habitat deterioration effects cannot be discounted for the wetland habitats of European sites downstream of the proposed road development in the Newry/Clanrye River, River Bann and River Lagan catchments in the absence of mitigation measures. Those sites are:

- Belfast Lough SPA (UK9020101)
- Belfast Lough Open Water SPA (UK9020290)
- proposed East Coast (Northern Ireland) Marine SPA (UK9020320)
- Belfast Lough Ramsar site
- North Channel SAC (UK0030399)
- Lough Neagh and Lough Beg SPA (UK9020091)
- Lough Neagh and Lough Beg Ramsar site
- Carlingford Shore SAC (IE0002306)
- Carlingford Lough SPA (UK9020161)
- Carlingford Lough SPA (IE0004078)
- Carlingford Lough Ramsar site

2.7.4 A precautionary approach has been adopted to the Appropriate Assessment process, as required by EU law, and account has been taken of the view of the Court of Justice of the European Union, that where an Appropriate Assessment is required, consent for the scheme should only be granted if it is certain that the scheme would not, alone or in combination with other projects, have an adverse effect on the integrity of a European site.

2.7.5 In light of the Appropriate Assessment process undertaken and the information presented within the updated HRA report (published with this Departmental Statement), the EIAR, the updated Schedule of Environmental Commitments (Annex B) and including the Inspectors report, the Department (as the Competent Authority) is content that the construction and operation of the A1 Junctions Phase 2 Road Improvement Scheme would not, by itself or in combination with other plans or projects, adversely affect the integrity of Belfast Lough SPA, Belfast Lough Open

Water SPA, the proposed East Coast (Northern Ireland) Marine SPA, Belfast Lough Ramsar Site, North Channel SAC, Lough Neagh and Lough Beg SPA, Lough Neagh and Lough Beg Ramsar Site, Carlingford Shore SAC, Carlingford Lough SPA (UK), Carlingford Lough (IE) and Carlingford Lough Ramsar Site or any other Natura 2000 site, or its ability to meet its conservation objectives, and no reasonable scientific doubt remains as to the absence of such effects.

2.8 CONSULTATION, PUBLICATION OF NOTICE AND PUBLIC INQUIRIES

2.8.1 In accordance with Schedules 5 and 8 to the 1993 Order and the Local Government Act (Northern Ireland) 1972, the Department placed the Notices relating to the EIAR, Intention to make a Direction Order, Intention to make a Vesting Order and Intention to make a Stopping-Up (of Private Accesses) Order in the Belfast Gazette, the News Letter, the Irish News, the Belfast Telegraph, the Dromore and Banbridge Leader, the Banbridge Chronicle and the Ulster Star in March 2019.

2.8.2 All of the documentation related to the scheme, including the EIAR, Notice of Intention to Make a Direction Order, Notice of Intention to Make a Vesting Order and a Notice of Intention to Make a Stopping-Up (of Private Accesses) Order were also made available for inspection, at six locations, for the duration of the Statutory Consultation period from 25th March 2019 to 28th June 2019. The published documents were also available to view online on the Department's website at (https://www.infrastructure-ni.gov.uk/articles/a1-junctions-phase-2-overview) and were circulated to the relevant statutory and non-statutory consultees seeking their comments on the proposals.

2.8.3 118 responses were received by the Department prior to the closing date of 28 June 2019 and a further 12 were received after the closing date which were also accepted by the Inspector. A total of 130 responses to the consultation were therefore received by the Department. Whilst 32 of these responses were minor queries typically seeking clarification on the scheme proposals or advising of corrections to contact details or stating no objection to the proposals, there were 98 substantive submissions received. These submissions consisted of:

- 14 individual objections (2 of these objections were subsequently withdrawn);
- 17 comments; and

- 67 written communications expressing support for the scheme.

2.8.4 The nature of the 14 objections received generally concern issues specific to individuals' (landowners or other stakeholders) preferences on certain aspects of the scheme. The main issues raised by the objectors are summarised as follows:

- Proposed location/ownership of local access roads/accommodation lanes;
- Extent of detour due to closing up central median;
- Environmental related impacts to properties (traffic, noise, visual etc);
- Impact on property values;
- Alternative Left In Left Out junction location;
- Length of existing slip lanes and the suggestion to upgrade as part of the Project;
- Extent of landtake relating to the proposed location of a bus stop at a particular junction;
- Request for the provision of an overbridge; and
- Mainline speed enforcement / restriction.

2.8.5 There were 67 written communications in support of the scheme and one of the emails of support received included a petition with over 12,000 signatures expressing their support for the scheme proposals.

2.8.6 There were 17 comments that did not express a view either in favour or against the proposals. The issues raised within these comments included:

- Accommodation works related issues;
- Proposals for slight specific changes to the proposed scheme; and
- Concern regarding pedestrians and cyclists crossing the A1.

2.8.7 In addition to the consultation highlighted above, there have been many meetings with interested parties and key stakeholders to allow the Department to consider and where appropriate incorporate stakeholder requirements and possible mitigation measures during the development of the Proposed Scheme. A number of these meetings took place after the formal objections were lodged. As a result of this

follow-up consultation, two Objections were withdrawn. This resulted in a total of 12 individual Objectors to the scheme.

2.8.8 On consideration of the responses submitted to the statutory consultation, the Department determined it appropriate to convene a Public Inquiry to examine the case for and against the Proposed Scheme.

2.8.9 The Department appointed Mr Kevin Chambers as the Inspector to the Public Inquiry. A Pre-Inquiry meeting took place on Thursday 6th February 2020, at which a number of administrative matters and other issues were discussed.

2.8.10 The Inquiry opened on Wednesday 11th March 2020 and closed on Friday 13th March 2020, lasting a total of 3 days.

2.8.11 Following the Inquiry, a number of site visits between the Inspector, Departmental representatives, objectors and commenters took place at the request of a number of objectors and commenters, during the week commencing 27th July 2020 and on 27th August 2020. The Inspector issued his Report to the Department on 19th October 2020. The Inspector's report is now available on the Department's website – (https://www.infrastructure-ni.gov.uk/publications/a1-junctions-phase-2-notice-intention-proceed-documents)

3 CONCLUSIONS AND RECOMMENDATIONS OF THE INSPECTOR'S REPORT

3.1 CONCLUSIONS

3.1.1 **The Inspector concluded the following (page 113 of the Inspector's Report):**

It is clear from the evidence presented to this Inquiry that there is very significant support for the proposed scheme from the community, from political representatives of all shades of opinion and from both business and public/private sector organisations. Significantly, I did not receive a single statement or submission of evidence that objected to the scheme in principle. Even those who did raise concerns and objections made clear their support for the broad principles detailed in the scheme proposals. Objections, where they have been raised, related to scheme proposals as they affected local land and property owners, or related to issues of local access.

Indeed, some of those who presented evidence to the Inquiry felt that the scheme proposals did not go far enough. Some felt that the A1 should now be upgraded to full motorway status, to include bus lanes or cycle lanes, and even that full park and ride facilities should be included as part of the scheme. These are valid and worthy aspirations. However, my remit as Inspector for Public Inquiries, is to carefully consider and examine the evidence presented to me within the context of the proposals pertaining to the scheme. It is my duty to be familiar with and consider the implications of all relevant guidance, legislation and regulations as they apply to the scheme and to make observations and recommendations on the basis of a fair and balanced consideration of the evidence presented. I am not at liberty to give consideration to matters raised that lie outside the scope of the scheme or remit of the Inquiry.

The A1 dual carriageway is one of the busiest arterial routes in Northern Ireland, carrying up to approximately 40,000 vehicles per day. A busy roadway of such strategic importance will always be prone to the occurrence of serious accidents, but the serious and fatal accident statistics for this road show that the proposed improvements are an urgent requirement. I offer my most sincere sympathy to all those who have suffered bereavement or loss as a result of accidents on the A1.

Over the past 40 years upgrades to the road have been carried out not just with the intention of improving travel comfort and journey times, but with the most important

objective of making the road as safe as possible for all users. The A1 Junctions Phase 2 Road Improvement Scheme includes the latest proposals to achieve this objective.

3.2 MAIN RECOMMENDATION

3.2.1 **The Inspector detailed his recommendations (pages 113-116 of the Inspector's Report).**

Based on due and careful consideration of all the evidence presented to the Inquiry, the Inspector provided the following overarching recommendation:

I recommend to the Department, therefore, to expedite the proposals detailed in the scheme documents as quickly as possible.

4 DEPARTMENT'S COMMENTS ON THE INSPECTOR'S REPORT

The comments in this section refer directly to the Inspector's report and should be read together with the Inspector's considerations included in that report. In continuing to progress the scheme, the Department will take cognisance of both the Inspector's comments and recommendations.

For ease of reference, in this section the Inspector's specific comments and recommendations are reproduced and followed by the Department's comments in italics.

4.1 COMMENTS ON THE INSPECTOR'S MAIN RECOMMENDATION

4.1.1 Over the past 40 years upgrades to the road have been carried out not just with the intention of improving travel comfort and journey times, but with the most important objective of making the road as safe as possible for all users. The A1 Junctions Phase 2 Road Improvement Scheme includes the latest proposals to achieve this objective.

I recommend to the Department, therefore, to expedite the proposals detailed in the scheme documents as quickly as possible.

The Department welcomes the Inspector's endorsement of the A1 Junctions Phase 2 Road Improvement Scheme and will endeavour to expedite the proposals detailed in the scheme documents as quickly as possible, subject to completing all of the necessary statutory processes and securing the necessary funding.

4.2 COMMENTS ON THE INSPECTOR'S SPECIFIC RECOMMENDATIONS

4.2.1 Recommendation No 1 – Mackey family (OB1)

In relation to the objection raised by the Mackey family (OB1), I accept that the Department's proposal to construct an accommodation lane running parallel to the A1 connecting Mackey's Lane to the proposed cul-de-sac end of the old Banbridge Road, Dromore and then to the proposed Gowdystown Road Compact Grade Separated Junction, is the appropriate solution and should thus be progressed. Although I note that the Department's proposal (Option 1) was based on the assumption that the area of ground at and close to the railway cutting was not

contaminated, I nevertheless consider that it would still be useful for the Department to carry out soil sampling activities to make a determination on whether or not the ground and land fill in the area of the railway cutting is, in fact, contaminated. See also Recommendation 8.

The Department acknowledges the Inspector's comments and accepts his recommendations:

- ***that the Department's proposal to construct an accommodation lane running parallel to the A1 connecting Mackey's Lane to the proposed cul-de-sac end of the old Banbridge Road, Dromore is the appropriate solution and should thus be progressed.***
- ***to carry out soil sampling activities on the ground in the area of the railway cutting.***

4.2.2 **Recommendation No 2 – Reverend and Mrs Thompson (OB2)**

In relation to the objection raised by Reverend and Mrs Thompson (OB2), I concur with the Department's proposal that Option 4 is the most appropriate solution in the circumstances and should thus be progressed. I ask that the Department carries out a post scheme survey to ensure that Reverend Thompson's concerns relating to headlight glare have been fully addressed. If not, appropriate remedial measures should be taken to ensure that glare from vehicle headlights on the Milebush Link Road does not impinge on the Thompson residence.

The Department acknowledges the Inspector's comments and accepts his recommendations:

- ***that the Department's proposal (Option 4) is the most appropriate solution in the circumstances and should thus be progressed.***
- ***to carry out a post scheme survey to ensure that concerns relating to headlight glare have been fully addressed and further mitigated if necessary.***

4.2.3 **Recommendation No 3 – McCauley family (OB3, OB4, OB5, OB6)**

In relation to the objections raised by the McCauley family (OB3, OB4, OB5, OB6), I recommend that the Department installs suitable noise insulation treatment to Mr H McCauley's bedroom windows. I also recommend that the Department considers the provision of suitable entrance gates to Mr McCauley's home. Thirdly, I recommend that the Department considers re-surfacing the whole road surface area from the cul-de-sac end of the Halfway Road to the Halfway House restaurant.

The Department notes the Inspector's assessment, within his report, that Option 1[6] ***remains the most economically viable and appropriate solution for mitigating the impact of the project on the Mitchell farm.***

The Department also notes that the Inspector has accepted that the noise assessment relating to Mr McCauley's property has been undertaken in line with the DMRB Vol 11 guidance and that the results obtained do not justify the provision of sound insulation treatment under the terms of the Noise Insulation Regulations NI (1995). The Department also notes the Inspector's comments on how he considers that the Noise Insulation Regulations do not deal with intermittent, short duration, but high level noise disturbance.

- ***The Department acknowledges the Inspector's recommendation regarding the installation of suitable noise insulation treatment to Mr H McCauley's bedroom windows and will further consider the potential feasibility for noise mitigation as appropriate, whilst taking cognisance of the principles underlying existing guidance and policy.***

The Department also acknowledges the Inspector's comments and accepts his recommendations:

- ***that the Department consider possible options for provision of suitable entrance gates to Mr McCauley's home where appropriate whilst taking cognisance of the principles underlying existing guidance and policy.***

- ***that the Department consider possible options for the provision of re-surfacing the whole road surface area from the cul-de-sac end of the Halfway***

[6] Refers to Section 5.3 of the A1 Junctions Phase 2 Road Improvement Scheme – Public Inquiry Report October 2020

Road to the Halfway House restaurant, where appropriate, whilst taking cognisance of the principles underlying existing guidance and policy.

4.2.4 **Recommendation No 4 – Mr Jonathan and Mrs Lynne McCabe (OB9)**

In relation to the objection raised by Mr Jonathan and Mrs Lynne McCabe (OB9), I recommend that the Department takes all reasonable precautions to protect as many mature trees as possible on or near the boundary of Mr and Mrs McCabe's property and that a qualified arborist be present onsite during the process to remove any such trees. I further recommend that the guidance provided in the tree survey report for the A1 Junctions Phase 2 Project be followed closely.

The Department acknowledges the Inspector's comments and accepts his recommendations that the Department:

- ***takes all reasonable precautions to protect as many mature trees as possible on or near the boundary of Mr and Mrs McCabe's property.***
- ***ensures a qualified arborist be present onsite during the removal of mature trees.***
- ***follows the guidance provided in the tree survey report for the A1 Junctions Phase 2 Project.***

4.2.5 **Recommendation No 5 – Mr Carl Ward (on behalf of Mr James Ward and Sons - OB10)**

In relation to the objection raised by Mr Carl Ward (on behalf of Mr James Ward and Sons - OB10), I accept that the Department's proposal to provide an accommodation lane to facilitate access to the Ward farm holdings on the eastern side of the A1 dual carriageway, along with the provision of an additional access lane to McKee's Dam, is the most appropriate and economically viable solution in the circumstances and I recommend that this proposal be progressed.

The Department acknowledges the Inspector's comments and accepts his recommendations:

- ***to provide an accommodation lane to facilitate access to the Ward farm holdings on the eastern side of the A1 dual carriageway (this refers to Option 1 as detailed within the Glen Road Accommodation Lane Option Appraisal).***
- ***to investigate with Mr Ward potential options for providing an additional access lane to McKee's Dam whilst taking cognisance of the principles underlying existing guidance and policy.***

4.2.6 **Recommendation No 6 – Mr M Dodds and Mr J Hamilton (on behalf of MLC Trustees - OB11)**

In relation to the objection raised by Mr M Dodds and Mr J Hamilton (on behalf of MLC Trustees - OB11), I recommend that the Department proceeds with its proposals to construct the new Listullycurran Road Compact Grade Separated Junction, but that it also gives some further consideration to the possibility of increasing the number of parking spaces at the proposed off-line bus stops at all of the new compact grade separated junctions, within the proposed vested area.

The Department acknowledges the Inspector's comments and accepts his recommendations:

- ***to proceed with the proposals to construct the new Listullycurran Road Compact Grade Separated Junction.***
- ***to further consider the possibility of increasing the number of parking spaces at the proposed off-line bus stops at all of the new compact grade separated junctions, within the proposed vested area.***

4.2.7 **Recommendation No 7 – Ms Julia Farkas (OB12)**

In relation to the objection raised by Ms Julia Farkas (OB12), I recommend that the Department proceeds with its proposals to close the Lower Quilly Road and make the Maypole Hill Road a left in/left out junction (LILO) as detailed in the scheme documents. I also recommend that the Road Safety Audit Report be reviewed to give consideration as to whether double yellow lines might be appropriate on both sides

of Gallows Street where it meets with the town square. Consideration should be given to the installation of traffic light controls where Gallows Street meets the town square. I also recommend that the Department continues to consider the issue of minor roads currently without suitable merge/diverge lanes during the final design process and provide as many merge/diverge facilities as possible within the guidance recommended in the Design Manual for Roads and Bridges.

The Department acknowledges the Inspector's comments and accepts his recommendation to close the Lower Quilly Road and make the Maypole Hill Road a left in/left out junction (LILO).

The Department will also give consideration to the following issues:

- ***It is noted that the Department has previously assessed Gallows Hill for double yellow lines and had made alterations as considered appropriate at that time. Post completion of the A1 Junctions Phase 2 scheme, the Department will further consider potential options for parking restrictions along Gallows Street where it meets with the town square taking account of any changes in traffic patterns at that time.***

- ***It is noted that the Department has previously assessed Gallows Hill /Town Square junction for traffic control lights, however installation of such measures was not considered appropriate at that time. Post completion of the A1 Junctions Phase 2 scheme, the Department will further consider potential options for appropriate traffic control measures where Gallows Street meets the town square taking account of any changes in traffic patterns at that time.***

- ***It is noted that the Department has, as part of the design process, previously given detailed consideration to the requirements for merge/diverge lanes in accordance with current design standards. The Department will continue to consider the issue of minor roads currently without suitable merge/diverge lanes during the final design process and will provide as many merge/diverge facilities as possible within the guidance recommended in the Design Manual for Roads and Bridges.***

4.2.8 **Recommendation No 8 – Mrs Laura Jordan (OB13)**

In relation to the objection raised by Mrs Laura Jordan (OB13), I recommend that the Department's proposal to construct an accommodation lane running parallel to the A1 connecting Mackey's Lane to the proposed cul-de-sac end of the old Banbridge Road, Dromore, and then to the proposed Gowdystown Road Compact Grade Separated Junction, should be progressed. Although I note that the Department's proposal (Option 1) was based on the assumption that the area of ground at and close to the railway cutting was not contaminated, I nevertheless consider that it would be useful for the Department to carry out soil sampling activities to make a determination on whether or not the ground and land fill in the area of the disused railway cutting is, in fact, contaminated. See also Recommendation 1.

The Department acknowledges the Inspector's comments and accepts his recommendations:

- ***that the Department's proposal to construct an accommodation lane running parallel to the A1 connecting Mackey's Lane to the proposed cul-de-sac end of the old Banbridge Road, Dromore should be progressed.***
- ***to carry out soil sampling activities on the ground in the area of the railway cutting.***

4.2.9 **Recommendation No 9 – Mr Philip Shields (OB14)**

In relation to the objection raised by Mr Philip Shields (OB14), I recommend that the Department proceeds with the proposals to construct an accommodation Lane (Option 1) to facilitate access by the Mitchell farm traffic to the Halfway Road. I also recommend that the Department considers re-surfacing the whole road surface area from the cul-de-sac end of the Halfway Road to the Halfway House restaurant.

The Department acknowledges the Inspector's comments and accepts his recommendations:

- ***to proceed with the proposals to construct an accommodation Lane (Option 1) to facilitate access by the Mitchell farm traffic to the Halfway Road.***

- ***to consider possible options for the provision of re-surfacing the whole road surface area from the cul-de-sac end of the Halfway Road to the Halfway House restaurant, where appropriate, whilst taking cognisance of the principles underlying existing guidance and policy***.

4.2.10 **Recommendation No 10 – Mr K Lynas (COM12) on behalf of DAERA**

The Environmental Impact Assessment Report includes many recommendations for the implementation of mitigation measures both during and post construction phase and I recommend that these are expedited in full in close liaison with the relevant statutory and advisory bodies. I would ask that the Department pays particular attention to the matters raised in his submission by Mr K Lynas (COM12) on behalf of DAERA and that the inaccuracies in the EIAR noted in his submission be corrected. I further recommend that the advice and guidance provided be followed closely during the pre-construction, construction and post-construction processes.

The Department acknowledges the Inspector's comments and accepts his recommendations. The following matters will be addressed as the scheme progresses:

- ***The Department accepts the Inspectors recommendation to liaise with the relevant statutory and advisory bodies including DAERA with a view to the full implementation of mitigation measures both during and post construction phase.***

- ***EIAR Chapter 7 sets out an indicative list of facilities permitted to accept key waste streams that is stated as being non-exhaustive and "is included to provide indication of the scale and locality of potential waste management facilities in relation to the Scheme". The Department acknowledges matters raised by Mr K Lynas on behalf of DAERA and confirm that through liaison with DAERA, an updated list of waste disposal sites (this includes addressing any inaccuracies) will be detailed in the Construction Environmental Management Plan (CEMP) and the Site Waste Management Plan (SWMP) for any future generated waste (not recycled on-site) and required to be disposed to a licensed waste facility.***

- ***The advice and guidance provided by DAERA will be followed closely during the pre-construction, construction and post-construction processes.***

4.2.11 **Recommendation No 11 – Mr B Clarke (Best Property Services) on behalf of Mr Kennedy Browne (COM16)**

In relation to the matters raised by Mr B Clarke (Best Property Services) on behalf of Mr Kennedy Browne (COM16), I agree with the Department's assessment that Option 0 is the most economically viable and appropriate option and should be brought forward under this scheme. I would also ask that the Department works closely with the Browne family to find optimum solutions for the accommodation lanes proposed in the Agricultural Impact Assessment report.

The Department acknowledges the Inspector's comments and accepts his recommendations:

- ***that Option 0 is the most economically viable and appropriate option and should be brought forward under this scheme.***
- ***The Department will continue to work closely with the Browne family to find optimum solutions for the accommodation lanes (on land on the Loughbrickland side of the carriageway) as proposed in the Agricultural Impact Assessment report prepared for Mr Browne's farm.***

4.2.12 **Recommendation No 12 – Office of Government Commerce Gateway Review process**

Although not specifically part of my remit, prior to the Inquiry Hearing I inquired of the Department if project management and development was operating under the guidance of the Office of Government Commerce Gateway Review process. I received an assurance that it was and I recommend that the Department continues to follow the Gateway process closely to help ensure the achievement of a successful and timely outcome to the project.

The Department acknowledges the Inspector's comments and accepts his recommendation to continue to follow the Gateway assurance process closely to

help ensure the achievement of a successful and timely outcome to the project. The project will be subject to a Gateway 3 (Investment Decision) Review in advance of award of contract.

4.2.13 **Recommendation No 13 – all other matters raised at the Public Inquiry**

In relation to all other matters raised at the Public Inquiry into the A1 Junctions Phase 2 Road Improvement Scheme, I recommend that the Department implements in full the proposals as detailed in the scheme documents.

The Department acknowledges the Inspector's comments and accepts his recommendation to implement in full the proposals as detailed in the scheme documents, subject to completing all of the necessary statutory processes and securing the necessary funding.

4.3 COMMENTS ON THE INSPECTOR'S CONSIDERATIONS RELATING TO ANY REMAINING SUBMISSIONS (NOT ADDRESSED IN 4.2)

This section covers any of the remaining Inspector's specific considerations relating to other submissions not included in Section 4.2.

4.3.1 **Submission by Mr B Clarke on behalf of Mr G and Mrs L Mitchell (COM1)**

Inspector's Consideration

Mr and Mrs Mitchell requested an on-site meeting so that they might have an opportunity to explain in full their concerns relating to the effects of the proposed scheme on their lands/properties. I agreed to this and met with Mr and Mrs Mitchell and Mr Clarke on the 27th of August 2020. At the meeting they reiterated their concerns and pointed out the details of how they felt they would be affected by the scheme proposals.

I note and welcome the Department's statement that it would be keen to continue dialogue with Mr and Mrs Mitchell in relation to accommodation works. I hope that mutually satisfactory solutions can be found. Otherwise, I accept that the Department's response is reasonable and appropriate in the circumstances.

The Department acknowledges the Inspector's comments and will endeavour to continue to liaise with Mr and Mrs Mitchell in an attempt to find mutually satisfactory solutions where appropriate.

4.3.2 **Submission by Mrs J McComb (COM2)**

Inspector's Consideration

I accept that the Department's response is reasonable and appropriate in the circumstances.

The Department acknowledges the Inspector's comments.

4.3.3 **Submission by Mr I Ward (on behalf of Mr M. Fegan) (COM3)**

Inspector's Consideration

I accept that the Department's response is reasonable and appropriate in the circumstances.

The Department acknowledges the Inspector's comments.

4.3.4 **Submission by Mr S Jemphrey on behalf of Mr. E. Watterson (COM4)**

Inspector's Consideration

I accept that the Department's response is reasonable and appropriate in the circumstances.

The Department acknowledges the Inspector's comments.

4.3.5 **Submission by Mr B Patterson (COM5)**

Inspector's Consideration

I accept that the Department's response is reasonable and appropriate in the circumstances.

The Department acknowledges the Inspector's comments.

4.3.6 **Submission by Mr B Clarke on behalf of Mr G and Mrs R Wilson (COM6)**

Inspector's Consideration

Mr and Mrs Wilson requested an on-site meeting so that they might have an opportunity to explain in full their concerns relating to the effects of the proposed scheme on their lands/properties. I agreed to this and met with Mr Wilson and Mr Clarke on the 27th of August 2020. At the meeting they reiterated their concerns and outlined again their requests for various accommodation as described above[7].

I note and welcome the Department's statement that it would be keen to continue dialogue with Mr and Mrs Wilson in relation to accommodation works. I hope that mutually satisfactory solutions can be achieved. Otherwise, I accept that the Department's response is reasonable and appropriate in the circumstances.

The Department acknowledges the Inspector's comments and will endeavour to continue to liaise with Mr and Mrs Wilson in an attempt to find mutually satisfactory solutions where appropriate.

4.3.7 **Submission by Mr B Clarke on behalf of Mrs M Graham (COM7)**

Inspector's Consideration

I accept that the Department's response is reasonable and appropriate in the circumstances.

The Department acknowledges the Inspector's comments.

[7] the various accommodation works are as detailed within the A1 Junctions Phase 2 Road Improvement Scheme – Public Inquiry Report October 2020

4.3.8 **Submission by Mr F Davidson (COM8)**

Inspector's Consideration

I accept that the Department's response is reasonable and appropriate in the circumstances.

The Department acknowledges the Inspector's comments.

4.3.9 **Submission by Mr F A Orr on behalf of Mrs M Webster (COM9)**

Inspector's Consideration

I accept that the Department's response is reasonable and appropriate in the circumstances.

The Department acknowledges the Inspector's comments.

4.3.10 **Submission by Ms S McEvoy (COM10)**

Inspector's Consideration

I accept that the Department's response.

The Department acknowledges the Inspector's comments.

4.3.11 **Submission by Mr F A Orr on behalf of Mr A Heslip (COM11)**

Inspector's Consideration

I accept that the Department's response is reasonable and appropriate in the circumstances.

The Department acknowledges the Inspector's comments.

4.3.12 **Submission by Mr C McKay (COM13)**

Inspector's Consideration

I accept that the Department's response is reasonable and appropriate in the circumstances.

The Department acknowledges the Inspector's comments.

4.3.13 **Submission by S McGimpsey on behalf of Mr D Wilson (MRP Land Ltd) (COM14)**

Inspector's Consideration

I accept that the Department's response is reasonable and appropriate in the circumstances.

The Department acknowledges the Inspector's comments.

4.3.14 **Submission by Mr T Hughes (Sinn Fein) (COM15)**

Inspector's Consideration

I accept that the Department's response is reasonable and appropriate in the circumstances.

The Department acknowledges the Inspector's comments.

4.3.15 **Submission by Mrs Emerald McKnight (COM17)**

Inspector's Consideration

I firstly wish to offer my most sincere condolences to Mr and Mrs McKnight on the loss of her sons.

I have given most careful consideration to the matter raised in Mrs McKnight's letter but, unfortunately, have come to the conclusion that it lay outside the remit of the Inquiry. However, I also wrote to the Department asking for Mrs McKnight's concerns to be given some consideration if possible.

The Department acknowledges the Inspector's comments and will give appropriate consideration to Mrs McKnight's concerns.

4.4 COMMENTS ON THE STATEMENTS OF SUPPORT

4.4.1 The Inspector's Report summarises a total of 67 statements of support for the scheme as listed below:

Supporters	
SU01	Ciara Sands
SU02	Cllr Brian Pope (Alliance)
SU03	AMEY (John Jordan)
SU04	Translink (Jenny Faulconbridge)
SU05	Harry Thompson
SU06	Amy Owens
SU07	Attracta O'Hagan
SU08	Berni McArdle
SU09	Bronagh Feehan
SU10	Carmel McCafferty
SU11	Chris Doran
SU12	Colin McGrath MLA (SDLP)
SU13	Conor Murphy MLA (Sinn Fein)
SU14	Deborah Kennedy
SU15	Emily Wallace
SU16	First Derivatives PLC (Adrian Toner)
SU17	Joanne Bunting MLA (DUP)
SU18	John McGarrity
SU19	Kayley Lamont
SU20	Kevin Monaghan
SU21	Laura Spiers
SU22	Linda Giles
SU23	Linzi Magee
SU24	Louise O'Hare
SU25	Margaret Manley
SU26	Meghan McGivern
SU27	Michelle McDonald
SU28	Mickey Brady MP (Sinn Fein)
SU29	Monica Heaney
SU30	Niall Brady
SU31	Nigel Dodds OBE MP (DUP)
SU32	Patricia Ruddy
SU33	Patrick Campbell
SU34	Patrick Rice

Supporters	
SU35	Paul Givan MLA (DUP)
SU36	Paul Stamp
SU37	Rita Bentley
SU38	Ross Harte
SU39	Sean Caughey
SU40	Teresa McCabe
SU41	Tommy Sands
SU42	Vicki Lennon
SU43	Paula Bradshaw MLA (Alliance)
SU44	Freight Transport Association (Seamus Leheny)
SU45	Marie-Claire Lucas
SU46	Pat McMahon
SU47	Wesley Johnston
SU48	Kevin McManus
SU49	Grainne Morgan
SU50	Aoife Murray
SU51	Seána Talbot
SU52	Alan & Rachel Kerr
SU53	Máighréad NíRiabhaigh-O'Duill
SU54	Gerry Mulgrew
SU55	John McAteer
SU56	Gillian Agnew
SU57	Laura Sands
SU58	Teresa Sands
SU59	Majella Gorman
SU60	Conor Sands
SU61	John O'Dowd MLA (Sinn Fein)
SU62	Conor McShane
SU63	Sheila Wade
SU64	Newry, Mourne, Down Council (Jonathan McGilly)
SU65	Armagh, Banbridge, Craigavon Council (Roger Wilson)
SU66	G & T Farrington and G F Loan
SU67	Dickson, Mary, Ivan, Elaine, Charlotte and Joshua McCrum
Note: Titles referenced are as per those included in submissions received as part of the statutory consultation process.	

4.4.2 The Department acknowledges and welcomes the level of support received for the proposed development.

4.4.3 The Department is very aware of how important the proposed A1 Junctions Phase 2 road improvements are for the many people who have expressed their support for the scheme, especially all those who have lost loved ones. Every road death is tragic and the Department extend their sincere sympathies to the families who have lost loved ones.

4.4.4 One of the main objectives of this proposed development is to improve the safety and consistency of this section of the A1 dual carriageway. The safety of those travelling on our roads is a priority for the Department. The Department recognises the importance of the A1 Junctions Phase 2 Road Improvement Scheme and is keen to progress to the next stage as quickly as possible, whilst of course ensuring satisfactory completion of all of the necessary statutory processes.

4.4.5 Specific issues raised within the submissions made by supporters will be given due consideration at the appropriate stage as the Project is developed.

5 MEASURES TO MITIGATE ADVERSE EFFECTS

5.1 As part of the EIA and design process, a range of mitigation and enhancement measures have been identified to avoid, offset or reduce adverse impacts associated with the Proposed Scheme.

5.2 As defined throughout each of the technical chapters within the EIAR, there are instances where environmental impacts associated with the Proposed Scheme may be of such a magnitude as to warrant mitigation measures. These measures are considered necessary to minimise environmental impacts during the construction and operational phases of the Proposed Scheme.

5.3 For the construction phase, an outline Construction Environmental Management Plan (oCEMP) has been prepared as part of the EIAR (Volume III Appendix 2.1). This document provides a framework from which the final CEMP will be developed to avoid, minimise or mitigate any construction effects on the environment. This oCEMP details the environmental monitoring and mitigation measures that are to be implemented during construction works (and pre-construction) to minimise the effects on receptors. The detailed mitigation and control mechanisms contained within this oCEMP are informed by the assessments contained within the associated EIAR technical chapters.

5.4 EIAR Table 21.1 (as detailed in Chapter 21 Schedule of Environmental Commitments of the EIAR) summarises a comprehensive range of mitigation measures identified in EIAR technical chapters. The Schedule of Environmental Commitments of the EIAR has been updated and is appended at Annex B.

5.5 The following sections (5.6 – 5.20) provides a summary of the overall committed mitigation measures contained within the EIAR, though reference should be made to individual chapters of the EIAR for more detail and further explanation.

5.6 The Department will also incorporate further mitigation measures as requested by the Inspector and these are included in section 5.21, and these measures will ultimately be incorporated into the final CEMP and adopted by the contractor.

5.7 Landscape and Visual (Chapter 6 of the EIAR)

5.7.1 Mitigation measures proposed consist of extensive landscape planting at effected areas including re-creation of new field boundary hedgerows and enhancement of existent hedgerows with trees and new woodland planting all of which will be appropriate to the local setting.

5.7.2 Monitoring of implemented mitigation measures shall be carried out to ensure that the proposed mitigation measures become well established and aid the integration of new elements associated with the Proposed Scheme into the surrounding landscape.

5.7.3 The construction of grade-separated junctions with associated lighting and large bridge structures would be the most visually significant features of the Proposed Scheme. Mitigation of these impacts has been considered through the alignment of the road, the design of structures and planting to address residual impacts.

5.8 Soils, Geology and Contaminated Land (Chapter 7 of the EIAR)

5.8.1 The construction activities will be conducted in a safe environmentally conscious manner and in line with all health and safety and environmental guidelines in relation to geology, soils, contaminated land and waste.

5.8.2 The oCEMP provided as part of the EIAR provides a framework from which the final CEMP will be developed to avoid minimise or mitigate any construction effects on the environment.

5.8.3 The management of all waste materials generated on site will be demonstrated through a Site Waste Management Plan (SWMP). A site specific pre-construction SWMP will be prepared by the appointed contractor and form a component part of the CEMP to ensure effective waste management and recycling of waste generated during the works. An outline SWMP has been included as Annex G to the oCEMP at Appendix 2.1 of the EIAR, and has been prepared in line with the waste management hierarchy with waste reduction and re-use on site being of primary focus. The outline SWMP will be updated and finalised by the appointed contractor, and implemented prior to construction works. The appointed contractors for the site preparation, piling, earthworks and construction phases of the works will be contractually obliged to follow the SWMP and all relevant legislation.

5.9 Water Environment (Chapter 8 of the EIAR)

5.9.1 Mitigation has already been undertaken during the design phase of the Proposed Scheme to minimise the potential impact of the project on the water quality by avoidance where possible.

5.9.2 Pollution Prevention Guidelines (PPGs) and Guidance for Pollution Prevention are a series of documents developed by the Environment Agency for England and Wales, the Northern Ireland Environment Agency (NIEA) for Northern Ireland and the Scottish Environment Protection Agency (SEPA) for Scotland. These guidance documents also make reference to environmental legal obligations and are an acknowledged source of best practice guidance for pollution prevention across different sectors.

5.9.3 The DAERA Planning and Environment section has published Standing Advice 4 on Pollution Prevention (DAERA, 2016) and highlights the need for the developer and contractor to apply good practice in relation to pollution prevention and to adhere to the guidance contained within the relevant PPGs. Whilst the PPGs have now been withdrawn they still provide useful information on good practice and DAERA recommend they are used as a source of information and good practice.

5.9.4 The oCEMP (EIAR Volume III Appendix 2.1) summarises mitigation proposed in relation to the water environment for the construction (and pre-construction) phases. All mitigation for the water environment is set out in Chapter 8 of the EIAR.

5.9.5 The oCEMP includes sediment control measures, the production and implementation of an appropriate Emergency Spill Response Plan, best practice measures and utmost care utilised in the use of concrete, appropriate storage and use of chemicals, surface water channel realignment and appropriate site drainage design.

5.9.6 Appropriate Sustainable Urban Drainage (SUDs) systems have been incorporated into the design of the proposed scheme to ensure the quality of the storm water will not compromise the receiving surface or groundwater within and downstream of the Proposed Scheme.

5.9.7 Whilst the risk to water quality is low, and the incorporation of SUDs into the drainage regime will improve the drainage and the monitoring and maintenance of

the attenuation ponds will ensure that they continue to operate effectively and therefore will not represent any residual risk to water quality.

5.9.8 The mitigation measures would be implemented prior to and during construction as appropriate and would be monitored on-site before and during construction to ensure effectiveness of measures. It would also involve regular monitoring of surface waters and SUDs to ensure effectiveness of measures.

5.10 Biodiversity (Chapter 9 of the EIAR)

5.10.1 Mitigation measures have been incorporated into the design in order to avoid and/or reduce negative effects on the ecological environment. An Ecological Clerk of Works (ECoW) will be employed to monitor and regularly inspect the implementation of all ecological mitigation contained in the EIAR, Habitats Regulations Assessment (HRA) and the oCEMP. The ECoW will provide advice both pre-construction and during construction in relation to legislation relating to the protection of ecological features; to provide advice on the timing of works and the implementation of mitigation and compensation measures; to apply for relevant derogation licences; to monitor identified works; and to produce site inspection reports.

5.10.2 Existing woodland, individual trees and hedgerows will be retained where possible and shall be protected during the construction phase in accordance with British Standard BS: 5837 2012 '*Trees in relation to design, demolition and construction'*.

5.10.3 The potential effects of the Proposed Scheme on the ecological environment and its receptors have been assessed and it is concluded that with the implementation of appropriate mitigation measures the residual effects would not adversely affect the integrity of any European site or result in any significant adverse residual effects on the ecological features.

5.11 Air Quality (Chapter 10 of the EIAR)

5.11.1 Effective mitigation measures for fugitive dusts (during the construction phase) would be implemented under site management controls by the Appointed Contractor including the implementation of a dust management plan (DMP) contained in the

oCEMP)). With such mitigation in place, the assessment carried out has shown that any off-site impacts from dust emissions during the construction phase would be not significant. There are no predicted significant residual impacts from construction dust from the Proposed Scheme.

5.11.2 The mitigation measures would be implemented in advance of and concurrent with construction, and would be monitored to ensure compliance with requirements and standards.

5.11.3 There would be no significant effect on either local or regional air quality as a result of the Proposed Scheme. Local air quality pollutant concentrations would remain well within the Relevant Air Quality Standards.

5.12 Climate and Greenhouse Gases (Chapter 11 of the EIAR)

5.12.1 The temporary nature of the construction period and the associated intermittent emissions from construction plant and machinery are not likely to give rise to significant amounts of greenhouse gas emissions. As such, the potential impact on regional emissions (and associated greenhouse gas emissions (GHG)) from the construction phase is not significant.

5.12.2 It should be noted that at all stages of the construction of the Proposed Scheme the Contractor will seek to minimise waste, re-use as much material as possible on-site, recycle/recover as much waste that cannot be used on site as possible and minimise carbon emissions.

5.12.3 Increases in regional GHG emissions as a result of the Proposed Scheme are very low in comparison to total UK emissions (and Northern Ireland emissions) and there is no significant residual impact.

5.13 Noise & Vibration (Chapter 12 of the EIAR)

5.13.1 Best practice measures for the construction (and pre-construction phase) are set out in *British Standard BS5228:2009+A1:2014 – Noise and vibration control on construction and open sites*. This standard outlines a range of measures that can be used to reduce the impact of construction phase noise on the nearest noise sensitive receptors.

5.13.2 These measures are adopted in the oCEMP and will be implanted during the works. On-site monitoring of noise levels and construction activities be undertaken in order to verify the predicted worst-case noise levels and also to ensure that all available and appropriate measures are implemented to minimise the potential impact upon local sensitive receptors.

5.13.3 For the operational phase, predicted noise levels at none of the modelled locations satisfy the conditions required for compensation as set out in the Noise Insulation Regulations (Northern Ireland) 1995.

5.13.4 One additional mitigation measure was identified arising from the local Public Inquiries and the subsequent Inspector's Report. This mitigation measure will be considered for the relevant property. Please refer to Recommendation No 3 in Section 4 of this Statement for details.

5.14 Traffic and Transport (Chapter 13 of the EIAR)

5.14.1 The Proposed Schemes construction is anticipated to be undertaken in a sequence that minimizes disruption to existing traffic on the trunk road and local connections. A Traffic Management Plan will be developed by the contractor detailing a phased construction programme. During construction existing capacity would generally be maintained on the A1 in both directions so that disruption would be minimal.

5.15 Cultural Heritage (Chapter 14 of the EIAR)

5.15.1 The mitigation measures set out in the EIAR for cultural heritage take due cognisance of the agreed framework of policy principles between Department for Communicates (Historic Environment Division) DfC:HED and the Department for Infrastructure (DfI), set out in DEM 156/15 Management of Archaeological Investigations on Major Road Improvement Schemes (2015).

5.15.2 It is recommended that the mitigation measures pertaining to construction phase of the Proposed Scheme integrate the guidance set out in DEM 156/15 by formulating a programme of archaeological investigation tailored to the project and its archaeological potential to reveal hitherto unrecorded archaeological features. The

Investigation Programme shall involve two phases: Implementation and Post-Implementation.

5.15.3 For the operational phase, any maintenance or management works required for the Proposed Scheme shall take due cognisance of the presence of adjacent recorded archaeological sites and the creation of exclusion zones as required, in consultation with DfC:HED.

5.16 Population and Health (Chapter 15 of the EIAR)

5.16.1 There is a significant level of overlap between population and health and a range of EIAR technical disciplines. This is in part due to the development of EIA, where the founding principle and overarching aim of the process is to protect the environment and facilitate good health and wellbeing.

5.16.2 In this instance, the population and health chapter of the EIAR (Chapter 15) draws from and builds upon the wider EIAR technical disciplines (most notably: air quality; noise transport; and pedestrians, cyclists, equestrians and community effects), signposting to key sections, and does not seek to repeat text or replicate data from the associated EIAR chapters.

5.16.3 Mitigation is proposed in the form of the oCEMP addressing air quality, noise, contaminated land and transport precursors to potential adverse health outcomes. As a result, there is limited opportunity for community hazard exposure sufficient to quantify any measurable adverse health outcome.

5.16.4 Further population and health mitigation would therefore be limited to ongoing engagement with local communities to raise awareness of any particularly disruptive construction activities, to monitor and feedback the effectiveness of mitigation, and respond to community concerns.

5.16.5 The construction and operation of the Proposed Scheme is not predicted to be of a nature or duration to quantify a measurable adverse population and health effect.

5.17 Land Use (Chapter 16 of the EIAR)

5.17.1 The effects on land use resources arise during the construction phase of the Proposed Scheme. There would be no physical impacts on areas of open space or sport and outdoor recreational facilities as a result of the project. There would be no impacts on any parcels of land within the towns and villages alongside the A1 that have been identified in the Banbridge/Newry Area Plan 2015 as potential development areas.

5.17.2 Regarding mitigation measures at construction stage the restoration of temporary areas of land required for construction to agricultural use will take place following recognised best practice measures. Further, measures to reduce the impact on farm holdings during the construction period shall include; maintaining water supplies; maintaining farm access; appropriate fencing of farm holdings; implementation of best practice to avoid spread of disease.

5.17.3 Where necessary suitable accommodation works have been considered for each of the land plots affected by the Proposed Scheme. There will be the loss of some residential property and there will also be the loss of some farm outbuildings. A number of agricultural landowners would be affected by the scheme, resulting in loss of land and farm severance. Accommodation works and alternative private means of access would allow continued farming activity.

5.18 Pedestrians, Cyclists, Equestrians & Community (Chapter 17 of the EIAR)

5.18.1 Throughout the design process the project team have actively engaged with affected stakeholders to discuss design proposals and ascertain feedback from the community which in turn informed the proposed mitigation measures.

5.18.2 Consideration of Pedestrians, Cyclists, Equestrians and Community was an integral consideration during the project development. Opportunities to improve the existing resource were considered including:

- improved links for pedestrians via new Grade Separated Junction footways and better links to bus stops with parking / drop off facilities;
- improved access to public transport services and improved roadside facilities (upgrade to modern glass shelters, etc.).

5.18.3 As stated previously the proposed A1J2 road improvements do not include any specific design measures aimed at encouraging the movement of pedestrians, cyclists or equestrians along the mainline. Indeed design measures including the continuous safety barrier and relocation of bus stops actively discourages such movements. This is in accordance with the main project driver which is to improve public safety. The proposed bus stop provisions will provide a safer arrangement than currently exists and will remove these existing hazards from the mainline.

5.18.4 The design has developed to ensure that associated community impacts which are perceived to be negative are minimised.

5.19 Material Assets (Chapter 18 of the EIAR)

5.19.1 This Chapter of the EIAR considered and assessed the potential impacts on the material assets that are considered including all major utility infrastructure namely; electricity; gas; water; and telecommunications. In addition, material assets are deemed to include Minerals (e.g. sand & gravel and rock etc.)

5.19.2 Further investigations into services will be necessary during the detailed design stage. Methods such as Ground Penetrating Radar (GPR) and silt trenching in the verge areas can be used to verify and locate existing services and offset potential effects.

5.19.3 Further to the mitigation measures set out it is deemed that there will not a requirement to schedule monitoring of material assets within the development area as a result of the proposed scheme.

5.20 Vehicle Travelers (Chapter 19 of the EIAR)

5.20.1 During the construction stage of the proposed scheme there is potential for any required road closures or temporary diversions to give rise to increases in drivers stress. Similarly temporary speed limit reductions may increase driver stress and negatively impact on journey reliability. A construction a traffic management plan for the construction stage will be developed prior to commencement of works.

5.20.2 Following completion of the proposed scheme and implementation of mitigation measures driver stress will improve due to scheme. It is anticipated that frustration,

fear of potential accidents and uncertainty will greatly reduce as a result of the proposed scheme.

5.21 Further mitigation measures requested by the Inspector

5.21.1 The following paragraphs sets out further mitigation measures requested by the inspector and these are acknowledged and accepted by the Department.

5.21.2 With regard to the railway cutting in close proximity to Mackey's Lane (Recommendation No. 1 and Recommendation No. 8), the Department acknowledges the Inspector's comments and accepts his recommendation to:

- carry out soil sampling activities on the ground in the area of the railway cutting.

5.21.3 In relation to Recommendation No. 2, the Department acknowledges the Inspector's comments and accepts his recommendation to:

- carry out a post scheme survey to ensure that concerns relating to headlight glare have been fully addressed and further mitigated if necessary.

5.21.4 In relation to Recommendation No. 3:

- the Department acknowledges the Inspector's recommendation regarding the installation of suitable noise insulation treatment to Mr H McCauley's bedroom windows and will further consider the potential feasibility for noise mitigation as appropriate, whilst taking cognisance of the principles underlying existing guidance and policy.

The Department also acknowledges the Inspector's comments and accepts his recommendations:

- to consider possible options for provision of suitable entrance gates to Mr McCauley's home where appropriate whilst taking cognisance of the principles underlying existing guidance and policy.

- to consider possible options for the provision of re-surfacing the whole road surface area from the cul-de-sac end of the Halfway Road to the Halfway House restaurant, where appropriate, whilst taking cognisance of the principles underlying existing guidance and policy.

5.21.5 In relation to recommendation No. 4, the Department acknowledges the Inspector's comments and accepts his recommendations that the Department:

- takes all reasonable precautions to protect as many mature trees as possible on or near the boundary of Mr and Mrs McCabe's property.
- ensures a qualified arborist be present onsite during the removal of mature trees.
- follows the guidance provided in the tree survey report for the A1 Junctions Phase 2 Project.

5.21.6 In relation to recommendation No. 5, the Department acknowledges the Inspector's comments and accepts his recommendation to:

- to provide an accommodation lane to facilitate access to the Ward farm holdings on the eastern side of the A1 dual carriageway (this refers to Option 1 as detailed within the Glen Road Accommodation Lane Option Appraisal).
- to investigate with Mr Ward potential options for providing an additional access lane to McKee's Dam whilst taking cognisance of the principles underlying existing guidance and policy.

5.21.7 In relation to recommendation No.10, the Department acknowledges the Inspector's comments and accepts his recommendation:

- an updated list of waste disposal sites will be detailed in the Construction Environmental Management Plan (CEMP) and the Site Waste Management Plan (SWMP) for any future generated waste (not recycled on-site) and required to be disposed to a licensed waste facility.

5.22 Clarification on Electrofishing in response to SES

5.22.1 Chapter 8 (Water Environment) of the EIAR refers to electrofishing as part of mitigation measures for fish. For convenience it is presented here in this report again for the reader:

- In general the watercourses were of low quality with little fisheries or ecological potential. However, it was concluded that at two locations, Junction 2 - Milebush Link Road and Junction 3 - Gowdystown Road, precautionary electrofishing should be carried out prior to the works in order to relocate any resident trout or other fish present in these reaches.

6 DEPARTMENTAL DECISION

6.1 Having considered the Inspector's Report and all other representations made, and having taken into account the reasoned conclusion on the significant effects of the project on the environment attached at Annex A and the appropriate assessment, the Department concurs with the Inspector's recommendation that the proposed A1 Junctions Phase 2 Road Improvement Scheme should proceed to be progressed and the necessary Orders made when appropriate. The decisions and Orders set out below will be subject to the requirement to carry out the mitigation and other works referred to in Section 5 of this Report and those actions in Section 4 relating to the Inspector's recommendations.

6.2 Environmental Impact Assessment Report

- The Department has decided to publish a Notice to Proceed with the scheme.

6.3 Direction Order

- The Department has decided to make the Direction Order for the scheme.

6.4 Stopping-Up (of Private Accesses) Order

- The Department has decided to make the Stopping Up (of Private Accesses) Order for the scheme

6.5 Vesting Order

- The Department has decided to delay the making of the Vesting Order for the scheme to align with the construction programme.

ANNEX A – REASONED CONCLUSION FOR THE PROJECT

A1 Introduction

An environmental assessment shall provide clear, concise information to support the competent authority in reaching a reasoned conclusion on the likely effects of a project on the environment. Environmental Impact Assessments (EIAs) must be based on current knowledge and established methods of assessment, in accordance with the EIA Directive.

The process has consisted of:

1) Screening, scoping and preparation of an EIA Report (EIAR);

2) Consultation and publication of the report and any other environmental information in accordance with the Roads(NI) Order;

3) Examination by the competent authority of the information contained within the EIA Report, and any supplementary information provided, and the results of any consultations;

4) The reasoned conclusion of the competent authority, taking into account the results of the examination referred to in point 3, and where appropriate, its own supplementary examination;

5) The integration of that reasoned conclusion into the decision as to whether to proceed with the project; and

6) This Annex provides the reasoned conclusion of the Department for Infrastructure (DfI) (the competent authority), taking into account the results of the examination of the information contained within the EIA Report, and any supplementary information provided, and the results of any consultations. DfI screened designated European and Ramsar sites for likely significant effects on site selection features and carried out Appropriate Assessment for those features and sites for which likely significant effects were identified. This is reported in EIAR Appendix 9.4 Habitats Regulations Assessment.

A2 Effects of the Proposed Development on the Environment

This annex summarises the outcome of assessment for each EIA topic, having regard to the examination of environmental information contained in the EIAR and to the submissions from statutory and non-statutory consultees. It is considered that the main significant direct and indirect effects of the proposed development on the environment are as follows.

A2.1 Landscape and Visual Impact

Direct impacts would arise from the physical construction of Junctions 1 to 6, such as new bridges, embankments, cuttings, road linkages, bus stop facilities, Sustainable Drainage Systems (SUDS) ponds and associated loss of vegetation. There would also be impacts from the construction of the new LILO junctions.

The predicted significant impacts on Local Landscape Character Areas during the construction phase include, temporary localised significant effects within the agricultural landscape in association with the formation of new junctions at Listullycurran Road (J1), Gowdystown Road (J3), Skeltons Road (J4), Waringsford Road (J5) and the formation of new link road at Milebush Road (J2). Localised but temporary significant effects are predicted to be experienced during the construction phase of the north bound on slip at Castlewellan Road (J6), affecting a small portion of the urban local landscape.

During the construction phase of the proposed development, seventeen of the twenty-four viewpoints selected for assessment purposes are predicted to experience significant visual effects due to the formation of new overbridge crossings, major ground remodelling works and works required to form new junctions, all of which lie in close proximity to the selected viewpoints.

During the operational phase (without mitigation), localised moderate effects are predicted to occur within the agricultural landscape, with effects limited to those portions of the landscape directly impacted upon by the formation of the new junctions and the proposed link road at Milebush Road. Localised minor to moderate effects are predicted to be experienced during the operational phase (without mitigation) of the north bound on slip at Castlewellan Road, affecting a small portion of the urban landscape.

During the operational phase of the proposed development, without mitigation, fourteen of the twenty-four viewpoints selected for assessment purposes are predicted to experience significant visual effects, due to the introduction of new features such as overbridge crossings and associated ground remodelling, all of which lie in close proximity to the selected viewpoints.

Mitigation measures and monitoring are described in the EIAR Vol I section 6.7. The proposed measures consist of extensive landscape planting at affected areas, including re-creation of new field boundary hedgerows and enhancement of existing hedgerows with trees and new woodland planting, all of which will be appropriate to the local setting. These are detailed in the Landscape Mitigation Plan Drawings Figures 6.73 – 6.93 in Vol II of the EIAR. A qualified arborist should be present onsite during the process to remove any mature trees and arboricultural work or tree surgery should be carried out in accordance with 'British Standard 5837:2012 Trees in relation to design, demolition and construction - Recommendations'.

As recommended in the PI, the Department will also provide an effective screen to prevent disturbance to property from passing headlights on the Milebush Link Road, in accordance with the details in the revised Figure 6.86. A post scheme survey will be carried out to ensure that concerns relating to headlight glare have been fully addressed.

Following establishment of the proposed mitigation measures, predicted landscape and visual effects associated with the proposed development will be reduced. The proposed development will not result in long-term significant adverse residual landscape effects upon the site itself or wider landscape.

Seven property groups are identified in EIAR Vol I Table 6.10 as having a predicted residual visual impacts of Moderate to Major Negative. Bridge structures and embankments in close proximity to residential dwellings will continue to cause long-term effects, although such features would gradually integrate into the surrounding landscape, as mitigation planting matures, and will be perceived as part of the visual pattern of the route.

Monitoring of implemented mitigation measures shall be carried out in accordance with the DMRB Volume 10; Environmental Design and Management; Section 3; Landscape Management and the relevant sections of Volume 1; Specification for

Highway Works; Series 3000 Landscape and Ecology. This is to ensure that the proposed mitigation measures become well established and aid the integration of new elements associated with the proposed development into the surrounding landscape.

All landscape mitigation will be monitored by the appointed contractor and following handover by DfI or their Agents. DfI or their Agents will be responsible for the operation and maintenance of the additional mainline roads infrastructure delivered under the A1 Junctions Phase 2 scheme, as part of their Design Build Finance and Operate (DBFO) contract. Maintenance of adjacent side roads will be undertaken by DfI.

With the Landscape Mitigation Plan in place, no long term significant adverse residual impacts on landscape and visual impact are predicted.

A2.2 Soil, Geology, Contaminated Land (including Waste)

The impacts on soils, geology and hydrogeology during the construction phase will be moderate adverse and short term in nature. Following development of the site, which will entail earthworks and implementation of the recommended mitigation measures, the operational impact will be neutral.

Mitigation measures are described in sections 7.1.5 and 7.2.8 of EIAR Vol I. They include the preparation of a CEMP and Site Waste Management Plan (SWMP) at construction stage and ensuring that all construction activities are conducted in a safe environmentally conscious manner and in line with all health and safety guidelines. Mitigation also includes the adoption of best practice in regard to soil management for restoration purposes, and the management of groundwater and surface water at excavated areas. The SMWP will be informed by up to date evidence on landfill and waste site status and capacity.

Should any unexpected contaminated materials be encountered during site re-development, these materials shall be excavated and quarantined within a separate lined area away from any water's edge, for further analysis and assessment. Contaminated soils and soil type materials will require their hazardous properties to be classified and assessed in accordance with Technical Guidance WM3 – Waste Classification: Guidance on the classification and assessment of waste (1st edition v1.1, May 2018).. Monitoring will take place through the actions identified in the EIAR, SoC and CEMP.

No significant adverse residual impacts on soils and geology are predicted.

A2.3 Water Environment

In general, the majority of the scheme has limited connectivity to nearby watercourses. The construction phase has the potential to result in moderate adverse significant impacts on downstream medium-sensitivity watercourses, where habitat quality provides the potential for juvenile trout, with salmonid designations further downstream. There is a significant amount of earthworks associated with the proposed scheme and mobilised suspended solids (silt) due to run off from stripped construction areas, stockpiled earth and the dewatering of excavations can have a significant negative impact on water quality. While many potential impacts are temporary, the ingress of silt to a watercourse can result in long-term changes. Slight to moderate adverse significant impacts may also occur from side casting of surplus unsuitable material from cut and fill operations and the spillage or release of oils and other chemicals.

No potential significant impacts have been identified for the operational phase; however, the voluntary inclusion of SuDS in the drainage design will deliver slight beneficial impacts.

Mitigation has been undertaken during the design phase of the proposed development to minimise the potential impact of the project on the water quality by avoidance where possible. The construction of new channels will be undertaken in accordance with best practice, i.e. CIRIA Technical Guidance C648. Where appropriate, reinstated channels will be designed to incorporate a low flow channel.

Mitigation measures are described in EIAR Vol I section 8.2.5 and relate to the management of site runoff and the implementation of pollution prevention measures. These will be designed and delivered through the implementation of the CEMP (including an Emergency Spill Response Plan) and general adherence to best practice in construction, as outlined in Pollution Prevention Guidelines (PPGs) / Guidance for Pollution Prevention (GPPs) and CIRIA guidance. Monitoring will take place through the actions identified in the EIAR, SoC and CEMP. Precautionary electrofishing should be carried out prior to the works at Junction 2 - Milebush Link Road and Junction 3 - Gowdystown Road, in order to relocate any resident trout or other fish present in these reaches.

The results of the flood risk assessment showed the significance of the effects of the proposed scheme on flood risk to be neutral.

No significant adverse residual water environment or flood risk impacts are predicted.

A2.4 Biodiversity

Potentially significant effects were predicted in the absence of any mitigation or monitoring measures on downstream designated sites, hedgerow habitat, bats, badgers and wild birds.

Mitigation measures have been incorporated into the design of the proposed development in order to avoid and/or reduce negative effects on the ecological environment. An Ecological Clerk of Works will be appointed to provide advice on the timing of works and the implementation of mitigation and compensation measures outlined in the CEMP including applying for relevant derogation licences and monitoring the mitigation measures.

Other targeted mitigation measures include:

- reinstatement of habitats within the scheme extents;
- further licenced bat surveys prior to building demolition and tree removal and the installation of 3 No. bat boxes prior to the demolition of any building or tree removal;
- specific measures for badger including artificial badger setts and the setting up of zones where no construction works will be permitted;
- measures for Japanese knotweed including provision of a Japanese Knotweed Management Plan and the setting up of zones where no construction works will be permitted;
- the timing of works to avoid the bird breeding season; and
- protection of bats, otter, badger and birds during construction works in accordance with Departmental Standing Advice.

- Following the publication of the EIAR and the PI, the following additional mitigation measures were recommended:
- All reasonable precautions to protect as many mature trees as possible should be taken and a qualified arborist should be present onsite during the process to remove any mature trees.
- Detailed lighting designs will be prepared cognisant of the DAERA correspondence dated 3rd July 2019; additional lighting should be bat sensitive and no lighting is to be directed towards any potential bat roosting feature.
- permanent badger fencing to be installed at Gowdystown Road Junction.

The following monitoring is proposed during the construction period:

- Bat Roost Inspection Survey of Buildings to be demolished
- Bat Roost Inspection Survey of Trees to be felled
- Newly constructed artificial badger setts and badger activity
- Pre-clearance check for breeding birds
- An Ecological Clerk of Works will monitor badger activity throughout construction.
- Badger sett and invasive species exclusion zone fencing will be inspected daily.
- Exclusion zones around Japanese knotweed will be inspected daily by the Contractors Nominated Representative to ensure that it is in working condition.

All landscape mitigation, including the reinstatement of habitats within the scheme extents, will be monitored by the appointed contractor and following handover by DfI or its Agents. DfI or its Agents will be responsible for the operation and maintenance of the additional mainline roads infrastructure delivered under the A1 Junctions Phase 2 scheme, as part of their Design Build Finance and Operate (DBFO) contract. Maintenance of adjacent side roads will be undertaken by DfI.

Residual significant adverse impacts have been identified in respect of the priority habitat (hedgerows) and the protected species badger and bat. The significance of the impact on priority habitat will reduce to No Significant Effect in the long term as the new hedgerow network matures. The project will have a Significant Negative Effect (Moderate Adverse) on bats if Bat Roost Inspection Surveys of buildings and trees confirm the presences of bat roosts and No Significant Effect if no bat roosts are found during Bat Roost Inspection Surveys. The project will have Significant Negative Effect (Minor Adverse) on badger with a minor impact on a legally protected species, but there will be no significant habitat loss following the implementation of mitigation measures.

The EIA concluded that residual effects would not adversely affect the integrity of any European site or result in any significant adverse residual effects on site selection features.

A2.5 Air Quality

In the absence of mitigation, medium to high significant impacts are identified for the construction phase, as a result of dust from construction activities, such as earth moving and excavations, and emissions from construction traffic and equipment/plant. No potential significant effects are identified for the operation phase.

Mitigation and monitoring is described in EIAR Vol I 10.6. It will be delivered through the implementation of a Dust Management Plan within the CEMP to include measures for dust suppression, control and use of equipment/plant and construction traffic management. The Dust Management Plan will be issued to and agreed with the relevant Local Authorities prior to the commencement of construction.

No significant adverse residual local air quality impacts at either human exposure locations or ecological receptors are predicted.

A2.6 Climate and Greenhouse Gases (GHGs)

The potential impact of the scheme on regional emissions (and associated greenhouse gas emissions) from both the construction and operation phases was assessed as not significant. Mitigation and monitoring are therefore not a requirement; however,

voluntary measures to minimise carbon emissions have been included in EIAR Vol I 11.5. No significant adverse residual climate impacts are predicted.

A2.7 Noise and Vibration

Construction activities associated with developments of this type have the potential to result in significant noise impacts dependent upon the proximity of existing sensitive receptors and the need for significant earth moving and use of 'heavy' plant and machinery. The greatest impacts generally occur during the initial site establishment stage when the ground is being prepared/excavated and the main infrastructure is being put in place. Once this is complete, one would expect to experience a drop in noise emissions. The precise construction strategy to be adopted will be a matter for the contractor, but it is likely that construction noise levels experienced during the construction phase may exceed the relevant guideline noise threshold limits if mitigation measures are not in place.

A range of mitigation measures to reduce potential construction phase noise impacts have been set out in EIAR Vol I section 12.6. These include the installation of a temporary noise barrier (approximately 2m height) placed between the construction activities and all properties in close proximity to the construction site (at least all properties within 100m of the proposed site). If properly installed, such a barrier in tandem with other on site mitigation measures will ensure that construction noise levels are below the relevant noise threshold limits. The assessment has recommended that noise monitoring be carried out during the construction phase, to ensure that recommended noise levels are adhered to at the nearest sensitive receptors. Works with potential for significant adverse noise impact should be pre-notified to affected parties and Council.

The predicted operational noise impact at all the modelled noise sensitive receptors is not significant. In line with current best practice, predicted adverse impact at all modelled receptors is negligible, except at one property where there is a minor adverse noise impact.

Following the publication of the EIAR and the Public Inquiry event, two additional mitigation measures were recommended by the Inspector:

- The Department notes that the Inspector has accepted that the noise assessment relating to Mr McCauley's property has been undertaken in line

with the DMRB Vol 11 guidance and that the results obtained do not justify the provision of sound insulation treatment under the terms of the Noise Insulation Regulations NI (1995). The Department also notes the Inspectors comments on how he considers that the Noise Insulation Regulations do not deal with intermittent, short duration noise disturbance. The Department acknowledges the Inspector's recommendation regarding the installation of suitable noise insulation treatment to Mr H McCauley's bedroom windows and will further consider the potential feasibility for noise mitigation as appropriate, whilst taking cognisance of the principles underlying existing guidance and policy.

- The Department will consider possible options for the provision of re-surfacing the whole road surface area from the cul-de-sac end of the Halfway Road to the Halfway House restaurant, where appropriate, whilst taking cognisance of the principles underlying existing guidance and policy.

No significant adverse residual noise impacts are predicted.

A2.8 Traffic and Transportation

During the construction phase, without mitigation there is predicted to be a moderate adverse effect on traffic flows of temporary duration as a consequence of a 3-4% increase in vehicle trips from construction activities. The predicted operational impact is a moderate beneficial impact.

Mitigation measures have been set out in the EIAR Vol I section 13.4.6. These will consist of careful management of the sequencing and timing of construction, to minimise disruption to existing traffic on the trunk road and local connections and the preparation and implementation of a Traffic Management Plan (TMP) by the Contractor. Some activities will require traffic management measures and consultation with Translink is recommended during the development of the TMP to help minimise impacts on bus services. Recommended monitoring for this development would include data from permanent automated traffic counter sites, journey time surveys and accident statistics.

No significant adverse residual traffic or transportation impacts are predicted.

A2.9 Cultural Heritage

The construction phase will involve ground reduction in many areas and this will include in close proximity to a small number of recorded archaeological sites. Ground reduction has the potential to impact on previously unrecorded elements of recorded sites (fosse/ditch associated with Ráths or enclosures) and on previously unrecorded archaeological finds, features or deposits that may exist sub-surface and be uncovered during topsoil stripping operations. The potential impact on previously unrecorded archaeology is unknown and therefore could be significant.

Mitigation and monitoring is proposed for construction phase works in all greenfield area which are subject to development/ground reduction. These areas should be subject to an archaeological programme of monitored topsoil stripping (watching brief) using specialised plant, by a suitably qualified archaeologist under archaeological licence from the Department for Communities: Historic Environment Division (DfC, HED). Should archaeological remains be uncovered, appropriate mitigation will be implemented. Sufficient time and resources should be allowed for in the construction programme to deal with potential archaeology that may be uncovered. Prior to construction, the boundaries of the proposed development areas should be clearly marked out and fenced off to create an exclusion zone in the vicinity of recorded archaeological monuments. No excavation, dumping of spoil, vehicular movements or any other associated site works should take place within the exclusion zones around these recorded archaeological sites.

In the operation phase maintenance or management works required for the proposed development shall take due cognisance of the presence of adjacent recorded archaeological sites and the creation of exclusion zones as required, in consultation with DfC:HED.

No significant adverse residual impacts on cultural heritage are predicted.

A2.10 Population and Human Health

No potential significant adverse impacts on population and health are identified in the EIA for either the construction or operation phases. Overall, it is predicted that there would be a beneficial population and health effect, based on the reduction in risk of accident and injury. Community liaison and the implementation of a CEMP

are voluntary measures that will be implemented during the construction phase to reduce the scale of nuisance effects.

No significant adverse residual impacts on population and human health are predicted.

A2.11 Land Use

No potential significant adverse impacts on land use are identified in the EIA for either the construction or operation phases. Measures to facilitate the successful restoration of temporary areas of land required for construction to agricultural use and to reduce disruption on farming activities have been included to mitigate against slight adverse impacts, which are below the threshold of significance.

No significant adverse residual impacts on land use are predicted.

A2.12 Pedestrians, Cyclists, Equestrians and Community Effects

In assessing the impacts on Pedestrians, Cyclists and Equestrians, the EIA considered journey length and local travel patterns and severance (including relief from severance and newly created severance).

Impacts on accessibility/severance during construction will be short in duration, and of moderate localised impact. During operation, any severance due to closure of central reservations must be balanced against safety benefits. Mitigation measures to reduce impacts on pedestrians, cyclists and community effects include:

- Design measures ensuring private driveways are replaced on a like for like basis, or through agreeable alternative solutions;
- The retention of access to all community facilities opening onto the A1;
- The provision of appropriately located grade separated junctions to improve safety and minimise impact;
- The provision of upgraded and appropriately located bus stop facilities.
- Retention of all existing pedestrian footways along the A1;
- Construction Environmental Management Plan to minimise construction impacts; and

- Provision of alternative accesses to Community Facilities if required.

No significant adverse residual impacts on pedestrians, cyclists, equestrians and communities are predicted.

A2.13 Material Assets

Utilities infrastructure comprising both underground and above ground infrastructure is known to be present within, or adjacent to, the footprint of the proposed scheme. In the absence of mitigation, major adverse impacts are predicted during the construction phase for gas, electricity supply, mains water, surface water and foul sewers, and telecommunications. During the operation phase, no significant adverse impacts are predicted and the scheme may give rise to some beneficial effects.

The EIA has documented that extensive consultation has taken place with the relevant service providers ahead of preparing the preliminary design of the Junctions and LILOs. Further investigations into services will be necessary during the detailed design stage. Mitigation is included via the construction management and phasing of works and proposed relocation of infrastructure by qualified contractors in accordance with the relevant service provider's approved procedures. Where down time or temporary impacts to supply are envisaged, these will be mitigated by engaging with the public and affected users in advance. The service providers will liaise with users to ensure that adverse impacts and disruption are minimised. For electricity provision, there may be potential for alternative supplies to be used with sections of overhead line isolated for the limited periods for the duration of the works.

No significant adverse residual impacts on material assets are predicted.

A2.14 Vehicle Travellers

During the construction stage of the proposed development there is potential for any required road closures or temporary diversions to give rise to increases in drivers stress. Similarly temporary speed limit reductions may increase driver stress and negatively impact on journey reliability. Mitigation will be delivered through traffic management plan (TMP) for the construction stage, to be developed prior to commencement of works. The TMP will include

- Road closures and diversions to be minimised and take place during off peak times to limit route uncertainty and thus driver stress;

- Although any temporary reduction in speed limit may increase driver stress, adequate signage will be provided at all times to encourage free flow of traffic.

No potential significant adverse impacts on vehicle travellers are identified in the EIA for the operation phases.

No significant adverse residual impacts on vehicle travellers are predicted.

A2.15 Impact on Plans and Policies

The assessment has demonstrated that the proposed scheme is in line with the key policies and plans relevant to the scheme, as documented in EIAR Vol I Chapter 05, and within the individual EIA topics. The proposed scheme will be subject to the statutory process for road development in Northern Ireland and the relevant legislation underpinning this.

A2.16 Interactions of the Foregoing and Cumulative Effects

Each of the technical assessments has taken into account the likely significant interacting impacts between topics. No interactions were identified that would lead, in combination, to significant adverse effects. None of the other development proposals identified as being relevant in terms of size, type and location are considered likely to lead to significant 'in-combination' effects on a sensitive environmental receptor.

A2.17 Designated European and Ramsar sites and Appropriate Assessment

DfI screened designated European and Ramsar sites for likely significant effects on site selection features and carried out Appropriate Assessment for those features and sites for which likely significant effects were identified. This is reported in EIAR Appendix 9.4 Habitats Regulations Assessment.

Likely significant effects as a result of habitat loss, disturbance or displacement have been discounted for all European sites considered.

The possibility of likely significant Water Quality and Habitat Deterioration effects cannot be discounted for the following European sites in the absence of mitigation measures:

River Lagan catchment

- Belfast Lough SPA (UK9020101)
- Belfast Lough Open Water SPA (UK9020290)
- proposed East Coast (Northern Ireland) Marine SPA (UK9020320)
- Belfast Lough Ramsar site
- North Channel SAC (UK0030399)

River Bann catchment

- Lough Neagh and Lough Beg SPA (UK9020091)
- Lough Neagh and Lough Beg Ramsar site

Clanrye/Newry River catchment

- Carlingford Shore SAC (IE0002306)
- Carlingford Lough SPA (UK9020161)
- Carlingford Lough SPA (IE0004078)
- Carlingford Lough Ramsar site

Mitigation has been proposed to avoid/reduce effects on the European site.

DfI completed an Appropriate Assessment in relation to the potential effects of the proposed scheme on these sites. This considered the nature, scale and location of the proposed development, the site's conservation objectives, proposed mitigation, representations of Northern Ireland Environment Agency and SES's report.

The Appropriate Assessment determined that there would be no adverse effects upon the integrity of any European Site as a result of the proposed development.

In completing the Appropriate Assessment DfI has concluded that the proposed development, individually or in combination with other plans or projects would not be likely to have a significant effect on European sites.

A3 Environmental Management & Monitoring

All necessary mitigation measures that have been identified within the EIAR to protect the environment, prior to or during construction, or during operation of the proposed scheme should be incorporated into the Schedule of Environmental Commitments, Method Statements and the Contractor's Environmental Management System which will include the Construction Environment Management Plan (CEMP), its annexed sub-plans and the Landscape Mitigation Plan.

With the EIAR, these documents will provide the necessary mechanism to ensure full compliance with the outlined environmental commitments. Mitigation measures for Chapters 6-19 have been recorded within each chapter and are summarised within the Schedule of Commitments in Chapter 21 and, where relevant, the oCEMP. The Schedule of Environmental Commitments has been reviewed and updated with the outcomes of this report and those of the Public Inquiry. The updated Schedule of Environmental Commitments in included at Annex B.

There is reference to the need for monitoring in some of the EIA topics. For example:

- Landscape and visual impact 6.7.5;
- Soils and Geology 7.2.8
- Water Environment 8.1.5.3, 8.2.5.2 and 8.2.5.4
- Biodiversity 9.6.1 and 9.6.9
- Air Quality 10.6.1
- Noise and Vibration: 12.6.1.1
- Traffic and Transportation 13.5
- Cultural Heritage 14.5.1
- Population and Human Health 15.5 and 15.8.1

The EIAR establishes baseline information which helps highlight potential construction effects, and should be referred to throughout environmental monitoring. The final CEMP and its supporting documents should specify these recommended

measures and any additional monitoring identified as being required to ensure the effectiveness of mitigation.

A full-time Environmental Manager will be responsible for developing the oCEMP and implementing the oCEMP (and its various potential iterations, as it is a 'live' document) during construction.

The Principal Contractor will identify a Site Manager. The Site Manager's environmental management responsibilities include but are not limited to:

- preparation and implementation of the CEMP;
- close liaison with the Environmental Manager to ensure adequate resources are made available for implementation of the CEMP;
- ensuring that the risk assessments for control of substances hazardous to health regulations (COSHH), noise and environmental risk are prepared and effectively monitored, reviewed and communicated on site; and,
- managing the preparation and implementation of method statements. Ensuring that the Environmental Manager reviews all method statements and that relevant environmental protocols are incorporated and appended.

An Ecological Clerk of Works (ECoW) will be employed by DfI or its agents to monitor and regularly inspect the implementation of all ecological mitigation. The ECoW will provide advice both pre-construction and during construction in relation to legislation relating to the protection of ecological features; to provide advice on the timing of works and the implementation of mitigation and compensation measures; to apply for relevant derogation licences; to monitor identified works; and to produce site inspection reports.

In accordance with BS 42020:2013 Biodiversity, an ECoW is a person who has the ecological qualifications, training, skills and relevant experience to undertake appropriate monitoring and to provide specialist advice to site personnel on the necessary working practices required to safeguard ecological features on site and to aid compliance with any consents and relevant wildlife legislation. There may be more than one ECoW required, depending on the specialist advice required throughout construction phase of the proposed development.

An Ecological Constraints and Opportunities Plan (ECOP) drawing will be prepared and included within the Final CEMP for the project prior to construction, to provide an overview of all ecological constraints. Method Statements will accompany the ECOP, where necessary, to provide detailed information on pre-construction vegetation clearance; on creation of artificial badger setts and the permanent closure of badger setts and on the management of invasive non-native species.

Towards the end of the construction phase, the CEMP shall be further refined by the appointed Contractor into a Handover Environmental Management Plan (HEMP), which shall contain essential environmental information required by the bodies responsible for the future maintenance and operation of the asset.

All mitigation will be monitored by the appointed contractor and following handover by DfI or their Agents. DfI or their Agents will be responsible for the operation and maintenance of the additional mainline roads infrastructure delivered under the A1 Junctions Phase 2 scheme, as part of their Design Build Finance and Operate (DBFO) contract. Maintenance of adjacent side roads will be undertaken by DfI.

A4 Conclusion

DfI considers that taking into account the EIAR, supported by the additional documentation published at consultation, submissions made by observers and statutory bodies as part of the Public Inquiry and responses made by DfI to the submissions, the mitigation measures proposed, that DfI has been provided with adequate information describing the effects of the proposed road scheme to allow DfI to reach a reasoned conclusion that, subject to the mitigation measures proposed and recommendations of Inspectors Report, the effects of the proposed road scheme on the environment would be acceptable.

Having examined all the environmental information, DfI is satisfied that it has been demonstrated to consultees that the proposed scheme will not have any significant adverse impacts on the natural or human environment (including designated sites and protected species) that cannot be addressed by the measures above.

ANNEX B - UPDATED SCHEDULE OF ENVIRONMENTAL COMMITMENTS (SOC)

The mitigation and monitoring measures identified will be integrated into the Environmental Management System. They will also therefore be placed in the Construction Environmental Management Plan (CEMP) and Site Waste Management Plan (SWMP). Additionally they will be integrated into the methods statement. Before or during construction, or during operation, these documents along with the contents of the EIAR will provide necessary information to ensure the environmental commitments are complied with. Legal and other requirements are identified to ensure they are implemented, monitored and that specific consultation is identified to ensure the mitigation measures are occurring.

Table B.1 shows a gathering of mitigation measures identified in EIAR chapters. These will provide a record of commitment for the contractor and must be followed throughout the contract. If commitments need revised agreements must be made between the contractor and other relevant bodies.

Table 21.1 of the EIAR has been updated (Table B1 in this document) to reflect additional mitigations identified through the public inquiry process and those recommendations that have been accepted by the Department. These are detailed at the start of the table with mitigation item no. prefixed with “Update”. The remainder of Table B.1 is unchanged from that published in the EIAR.

Comment: It should be noted, the Schedule of Environmental Commitments (SoC) provides a summary of the overall committed mitigation measures contained within the EIAR, though reference should be made to individual chapters of the EIAR for more detail and further explanation.

The SoC within the EIAR provides a collective summary of the proposed mitigation measures to ensure compliance during and beyond the construction contract period. As a prescriptive part of the construction and maintenance contract requirements, this schedule sets out responsibilities to ensure that measures are not only implemented, but monitored and inspected to ensure effective implementation on-site and that all measures are correctly adhered to.

The updated SoC will be included in the Final CEMP. The CEMP provides the framework for recording environmental risks, commitments and other environmental

constraints, and clearly identifies the structures and processes that will be used to manage and control these aspects.

The CEMP also seeks to ensure compliance with relevant environmental legislation, government policy objectives and scheme-specific environmental objectives. It also provides the mechanism for monitoring, reviewing and auditing environmental performance and compliance.

Table B.1: Schedule of Environmental Commitments (including Updates)

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
Updated Requirements				
Update 01	The vicinity of the property of Jonathan & Lynne McCabe (OB9)	To take all reasonable precautions to protect as many mature trees as possible on or near the boundary of Mr and Mrs McCabe's property, and ensure that it closely follows the guidance provided in the tree survey report for A1 Junctions Phase 2 Project.	• Take all reasonable precautions to protect as many mature trees as possible on or near the boundary of the property. • Ensure a qualified arborist be present onsite during the removal of mature trees.	Construction phase & Post Construction Monitoring of Landscape
Update 02	Junction 2 & Junction 3 (this was already detailed in the EIAR – including in updated SoC for convenience)	Requirement for precautionary electrofishing in order to relocate any resident trout or other fish present in the waterways	• Where the proposed junction upgrades cross water bodies along the scheme any significant impact to the channel and bankside zones through habitat loss should be avoided where possible. However, as identified by the desk based assessment and the field surveys, the watercourses in question are of low to medium significance and sensitivity and are not expected to be impacted by the proposal to culvert or realign short stretches, however electrofishing to relocate any resident trout or other species is recommended at the water courses affected by the Junction 2 and Junction 3 upgrades as they are assessed as capable of holding juvenile trout.	Pre-Construction phase

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
Update 03	Lighting at junctions	Prevention of light spill for bats	• No lighting is directed towards any potential bat roosting feature.	Detailed design stage for the Operational Phase
Update 04	Along works (COM12)	Contaminated land & Waste. Update to facilities permitted to accept key waste streams	• The Department acknowledges matters raised by Mr K Lynas on behalf of DAERA and confirm that through liaison with DAERA, an updated list of waste disposal sites (this includes addressing any inaccuracies) will be detailed in the Construction Environmental Management Plan (CEMP) and the Site Waste Management Plan (SWMP) for any future generated waste (not recycled on-site) and required to be disposed to a licensed waste facility. • Any contaminated soils and soil type materials require its hazardous properties to be firstly classified and assessed in accordance with Technical Guidance WM3 – Waste Classification: Guidance on the classification and assessment of waste (1st edition v1.1, May 2018).	Construction
Update 05	Milebush Road (OB2)	Nuisance from passing vehicles' headlights as a consequence of the proposed location of the new link road.	• The Department will provide an effective screen between the property and the road, to prevent disturbance from passing headlights. If the assurance given turns out to be incorrect then the Department will be obligated to introduce appropriate measures to resolve this problem. • Carry out a post scheme survey to ensure that concerns relating to headlight glare have been fully addressed and further mitigated if necessary.	Construction & Post Construction
Update 06	The route of the proposed Halfway Road Accommodation Lane. (OB3, OB4, OB5, OB6)	Noise and vibration; pedestrian safety.	• Department to consider possible options for the provision of re-surfacing the whole road surface area from the cul-de-sac end of the Halfway Road to the Halfway House restaurant, where appropriate, whilst taking cognisance of the principles underlying existing guidance and policy. • Department to consider provision of entrance gates to the property to provide additional safety for when children are visiting. • Possible installation of suitable noise insulation treatment to bedroom windows - The Department notes that the Inspector has accepted that the noise assessment relating to Mr McCauley's	Construction

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
			property has been undertaken in line with the DMRB Vol 11 guidance and that the results obtained do not justify the provision of sound insulation treatment under the terms of the Noise Insulation Regulations NI (1995). The Department also notes the Inspectors comments on how he considers that the Noise Insulation Regulations do not deal with intermittent, short duration noise disturbance. The Department acknowledges the Inspector's recommendation regarding the installation of suitable noise insulation treatment to Mr H McCauley's bedroom windows and will further consider the potential feasibility for noise mitigation as appropriate, whilst taking cognisance of the principles underlying existing guidance and policy.	
Update 07	Halfway Road (OB14)	Noise & Vibration	• Department to consider possible options for the provision of re-surfacing the whole road surface area from the cul-de-sac end of the Halfway Road to the Halfway House restaurant, where appropriate, whilst taking cognisance of the principles underlying existing guidance and policy.	Construction
Update 08	McKees Dam/Wards Lane (OB10)	The Department will investigate with Mr Ward the possibility of providing an additional access lane to McKee's Dam whilst taking cognisance of the principles underlying existing guidance and policy.	• Relevant mitigation measures as set out in the EIAR will be applied to this location. • Mitigation proposed are the same set of measures as are already identified and prescribed in the A1J2 EIAR. • The adoption and implementation of mitigation measures will ensure that there is no significant effect.	Construction
Update 09	Railway cutting in close proximity to Mackey's Lane (OB1 & OB13)	Contaminated Land	• Carry out soil sampling activities on the ground in the area of the railway cutting.	Pre-Construction

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
Update 10	Entire route as appropriate	Noise	• Works with potential for significant adverse noise impact should be pre-notified to affected parties and Council.	Pre-construction
Update 11	Entire route as appropriate	Landscape & Visual	• All planting works will be carried out and maintained for the specified maintenance period in accordance with Volume 1 Specification for Highway Works, Series 3000 Landscape and Ecology.	Construction & Post Construction
Landscape and Visual				
LV 01	Ch850 northbound - Residential garden	Integrate proposal into landscape pattern and reduce visual impact	New boundary fence.	Undertaken during construction. Effective during operation.
LV 02	Ch850 to Ch1350 both sides of the road	To integrate the scheme into the landscape and compensate for loss of existing vegetation	Replacement hedgerow planting along scheme boundary.	Undertaken during construction. Effective during operation.
LV 03	Ch1600 to Ch1800 northbound - Farm land and agricultural buildings	To integrate the scheme into the landscape, compensate for loss of existing vegetation and reduce visual impact	Replacement hedgerow planting along main carriageway route. New hedgerows with scattered mature tree planting either side of widened Spingwell Loanin.	Undertaken during construction. Effective during operation.

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
LV 04	Ch5100 to CH5700 southbound - Residential and urban fringe (Banbridge)	Integrate proposal into landscape pattern and reduce visual impact	Screen woodland planting to replace vegetation removed along southbound carriageway between Ch5300 and Ch5700.	Undertaken during construction. Effective during operation.
LV 05	Ch5100 to CH5700 northbound - Residential and urban fringe (Banbridge)	Integrate proposal into landscape pattern and reduce visual impact	Replacement screen woodland planting with evergreen species to replace removed vegetation adjacent to residential properties at Chinauley Park during formation of northbound on slip.	Undertaken during construction. Effective during operation.
LV 06	Ch5700 to Ch5300 southbound - Residential and urban fringe (Banbridge)	To integrate the scheme into the landscape, compensate for loss of existing vegetation and reduce visual impact	Replacement hedgerows along southbound A1 carriageway	Undertaken during construction. Effective during operation.
LV 07	Ch6200 to Ch6600 southbound	To integrate the scheme into the landscape, compensate for loss of existing vegetation and reduce visual impact	Replacement hedgerow planting along main carriageway with scattered tree planting New hedgerows with scattered mature tree planting either side of widened portions of Lisnaree Road.	Undertaken during construction. Effective during operation.

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
LV 08	Waringsford Road Junction	To integrate the scheme into the landscape, compensate for loss of existing vegetation and reduce visual impact	Ch7600 northbound – new hedgerows to realigned local access. Ch7550 – Ch7800 northbound – new hedgerows either side of new local access road from junction. Ch7900 – Ch8100 northbound – new residential garden boundaries to be formed with hedges. Ch7900 southbound – new hedgerows either side of widened portions of Waringsford Road New screen planting to embankments and cuttings associated with formation of over bridge and junction. New hedgerows with scattered trees to field boundaries. New hedgerows to widened portions of local access road (Quarry Road). Woodland planting on embankments to edge of quarry facility (Tullyraine Quarry facility)	Undertaken during construction. Effective during operation.
LV 09	Ch8200 to Ch8600 both sides of the road	To integrate the scheme into the landscape, compensate for loss of existing vegetation and reduce visual impact	New hedgerows to replace removed hedgerows along widened access roads and to form new field boundaries. New hedgerow to replace lost hedgerows between Ch8400 and Ch8500 north bound.	Undertaken during construction. Effective during operation.
LV 10	Ch9150 to Ch9800 - Skeltons Road Junction	To integrate the scheme into the landscape, compensate for loss of existing vegetation and reduce visual impact	New woodland planting on embankments and cuttings adjacent to Skeltons Road. New hedgerows to form boundaries along Drumneath Road and to new property linkages to the south. New native species hedgerows to form field boundaries. New mixed species woodland planting on larger embankments between Ch9900 and9500 southbound.	Undertaken during construction. Effective during operation.
LV 11	Ch10300 to Ch10700 northbound	Integrate proposal into landscape pattern and reduce	New mixed species woodland planting between Ch10300 and Ch10700 northbound on embankments. New hedgerow with scattered trees between Ch10500 and Ch10700	Undertaken during construction.

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
		visual impact	northbound to form new boundary to field.	Effective during operation.
LV 12	Ch11000 to Ch11300 southbound	To integrate the scheme into the landscape, compensate for loss of existing vegetation and reduce visual impact	New mixed species woodland planting to replace removed vegetation adjacent to south bound carriageway	Undertaken during construction. Effective during operation.
LV 13	Gowdystown Road Junction	To integrate the scheme into the landscape, compensate for loss of existing vegetation and reduce visual impact	New woodland screen planting on embankments and cuttings to over bridge. New hedgerows with scattered trees to form links to adjacent residential properties. New native species hedgerows to re-form field boundaries	Undertaken during construction. Effective during operation.
LV 14	Ch12700 to Ch13250 both sides of the road	To integrate the scheme into the landscape, compensate for loss of existing vegetation and reduce visual impact	New hedgerows between Ch12900 and Ch13100 to form boundary to fields and link roads New hedgerows to either side of widened portions of Mackey's Lane New hedgerow with scattered trees between Ch13000 and Ch 13250 north bound to replace lost hedgerows on northbound side	Undertaken during construction. Effective during operation.
LV 15	Ch15200 to Ch15350 northbound	To integrate the scheme into the landscape and compensate for loss of existing vegetation	Replacement mixed native species woodland planting to slopes to replace woodland lost as part of junction improvement.	Undertaken during construction. Effective during operation.
LV 16	Ch15900 to Ch16550 both sides of the road	To integrate the scheme into the landscape and compensate for the loss of vegetation	New native species hedgerows to re-form field boundaries	Undertaken during construction. Effective during operation.
LV 17	Ch17500 northbound off line link road	Integrate proposal into landscape pattern and reduce visual impact	New mixed species screen woodland planting to embankments. New native hedgerow planting along road edge. New native species hedgerows to re-form field boundaries and property / field access points.	Undertaken during construction. Effective during operation.

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
LV 18	Ch18300 to Ch 18650 southbound	Integrate proposal into landscape pattern and reduce visual impact	New mixed woodland planting between Ch18400 and Ch18600 southbound to replace removed vegetation. New hedgerow planting between Ch18500 and Ch18650 southbound.	Undertaken during construction. Effective during operation.
LV 19	Ch19000 to Ch19160 northbound	Integrate proposal into landscape pattern and reduce visual impact	Mitigation to residential boundaries – new fencing, planting and hedgerows	Undertaken during construction. Effective during operation.
LV 20	Ch19350 to Ch19500 northbound	To integrate the scheme into the landscape and compensate for the loss of vegetation	New mixed species woodland planting to replace removed vegetation. New native hedgerows to reform field boundaries and boundaries to residential properties	Undertaken during construction. Effective during operation.
LV 21	Ch19400 to Ch20100 both sides of carriageway	To integrate the scheme into the landscape and compensate for the loss of vegetation	New mixed species screen woodland planting to new embankments and cuttings associated with junction improvements and link roads. New hedgerows with scattered trees to form boundaries to adjacent fields. New species appropriate hedgerows to residential properties affected by re-alignment of access lanes and roads	Undertaken during construction. Effective during operation.
LV 22	Ch20800 to Ch21250 northbound	Integrate proposal into landscape pattern and reduce visual impact	New mixed species screen woodland planting to new embankments and cuttings associated with junction improvements. New hedgerows with scattered trees to form boundaries to adjacent fields.	Undertaken after construction of embankments. Effective during operation.
LV 23	Ch21750 to Ch22230 both sides of the road	Integrate proposal into landscape pattern and reduce visual impact	New mixed species screen woodland planting to new embankments and cuttings associated with junction improvements. New hedgerows with scattered trees to form boundaries to adjacent fields.	Undertaken after construction of embankments. Effective during operation.
LV 24	Ch23600 to Ch24000	Integrate proposal	New mixed species screen woodland planting to new embankments	Undertaken after

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
	northbound	into landscape pattern and reduce visual impact	and cuttings associated with junction improvements. New hedgerows with scattered trees to form boundaries to adjacent fields.	construction of embankments. Effective during operation.
Soils, Geology, Contaminated Land & Waste				
SGCW 1	Throughout scheme	Contaminated Material Management	During monitoring of works should any unexpected contaminated materials be encountered during site re- development, these materials shall be excavated and quarantined within a separate lined area away from the water's edge, for further analysis and assessment. Depending on the outcome, the Conceptual Site Model (CSM) may need to be re-assessed. Any unexpected waste encountered on site will be dealt with in accordance with the appropriate current legislation relevant to the jurisdiction.	Construction phase
SGCW 2	Throughout scheme	Site Waste Management Plan	Preparation of a Site Waste Management Plan at construction stage which outlines the quantities and types of material (including excavated soils) which will be disposed off-site and be used to monitor and keep records of materials disposed off site	Construction phase

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
SGCW 3	Throughout scheme	Green waste removal during site preparation	Green wastes will be stored in appropriate designated area on site. Collection will occur by either the local council or by appropriately licensed or permitted private waste contractors that have been appointed by the contractor for composting or disposal and taken to suitably licensed facilities.	Construction phase
SGCW 4	Throughout scheme	Ensure high value waste such as metals are removed and segregated	A Demolition Survey is required before any demolition work is undertaken. The contractor will ensure that demolition wastes will be collected by an appropriately licensed waste management contractor and that all proposed management routes will be in accordance with the waste management hierarchy and legal requirements. The Demolition Survey will also include intrusive surveying with sampling which will identify the exact extent and location of all ACMs in the building.	Before construction
SGCW 5	Throughout scheme	Pollution Prevention and Control	On-site crushing, grinding, or other size reduction of demolition wastes such as waste concrete is to take place, through the use of a mobile crusher. This installation is allowed under a permit granted under the Pollution Prevention and Control Regulations (Northern Ireland) 2003. The appointed contractor will apply for this permit which is subject to planning.	Construction phase
SGCW 6	Throughout scheme	Pollution Prevention and Control	The storage and reuse of demolition or excavation wastes on site may be subject to a number of waste licensing requirements. If these wastes are to be stored on site, prior to potential reuse or recovery during construction, this activity will be subject to a Waste Management License Exemption with a limited tonnage of material permitted to be stored on site. Storage will take place in a secure area on-site and the contractor will monitor the amount of waste stored to ensure that the permitted limits of the Exemption are not exceeded. Prior to construction the appropriate Waste Management License or	Construction stage (license must be got before construction)

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
			Exemption will be in place.	
SGCW 7	Throughout scheme	Pollution Prevention and Control	Metals and gypsum will be sent off site for recycling.	Construction phase
SGCW 8	Throughout scheme	Pollution Prevention and Control	Any hazardous wastes identified will be sent to a suitably permitted waste facility for disposal.	Construction phase
SGCW 9	Throughout scheme – Each individual location managed in isolation	Excavation material for infilling	Cut-and-fill balancing will be optimised in order to maximise the reuse of excavated materials for infilling and landscaping to ensure the optimal reuse of site-won materials on the proposed development. The preference for any materials that cannot be reused on site will be for beneficial use off site. Due to the geographical spread of the earthworks locations it is likely that each location will be managed in isolation. Any opportunity to manage the cut and fill balance between junctions will be explored by the Contractor, but it is envisaged that this will be minimal.	Construction phase
SGCW 10	Throughout scheme	Material sourcing	It will be the responsibility of the contractor appointed to identify suitable locations from which to source materials, for example local borrow pits or construction sites with excess materials, and locations for disposing excess unsuitable spoil. Apart from the material to be disposed offsite or imported the remainder of the materials will be transported within the construction site. The estimates of material quantities presented here are the best estimate available at this design stage.	Before construction
SGCW 11	Throughout scheme	Storage and reuse of excavation wastes – Waste Management Licence Exemption	The storage and reuse of excavation wastes on site may be subject to a number of waste licensing requirements. If these wastes are to be stored on site, prior to potential reuse or recovery during construction, this activity will be subject to a Waste Management Licence Exemption with a limited tonnage of material permitted to be stored on site. Storage will take place in a secure area on- site and the contractor will monitor the amount of waste stored to ensure that the permitted limits of the Exemption are not exceeded. Prior to construction the appropriate Waste Management Licence or Exemption will be in place.	Construction phase

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
SGCW 12	Throughout scheme	Testing for possible reuse of excavation material	Possibilities for reuse of excavation material as fill on the site will be considered following appropriate testing to ensure material is suitable for its proposed end purpose. In order to ensure that appropriate disposal routes are identified for the subsoil and topsoil excavated, appropriate testing of these soils will be required to ensure that they are reused, where possible, or if necessary disposed to landfill.	Construction phase
SGCW 13	Throughout scheme	Landfill and the European waste hierarchy	Should excavation and disposal of materials to a suitably licensed landfill be required, then this strategy will need to demonstrate how this option complies with the European waste hierarchy of prevention, preparing for reuse, recycling, recovery with disposal being the last and final option. There are a number of licensed landfill sites in the area that can accept this material.	Construction phase
SGCW 14	Throughout scheme	Construction Environmental Management Plan	All procedures from the Construction Environmental Management Plan (CEMP) must be followed.	Construction phase
SGCW 15	Throughout scheme	Site Specific - Site Waste Management Plan (SWMP)	The management of all waste materials generated on site will be demonstrated through a SWMP. A site specific pre-construction SWMP will be also prepared by the appointed contractor and form a component part of the CEMP to ensure effective waste management and recycling of waste generated during the works. The Draft SWMP has been included in ES Volume III and has been prepared in line with the waste management hierarchy with waste reduction and re-use on site being of primary focus. The SWMP will be updated and finalised by the appointed contractor, and implemented prior to construction works. The appointed contractors for the site preparation, piling, earthworks and construction phases of the works will be contractually obliged to follow the SWMP and all relevant legislation.	Designed before construction and functional during construction

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
SGCW 16	Throughout scheme	Appropriate solid waste disposal	Solid waste in the form of sediments will arise from the wheel wash units settlement tank. The units will be inspected daily (for example, to check automated features are working and settlement content) and emptied in accordance with manufacturer's instructions. The solid residues will be analysed and the disposal route appropriately selected based on the results of this analysis. A gully emptier tanker will be used to remove settlement tank waste which will be disposed of at an approved waste disposal site.	Construction phase
Water Environment				
WE 1	Throughout the scheme	No new or increased risk of flooding from watercourses	In each location the junction design has been chosen to minimise the amount of works required to the watercourses. Mitigation measures have involved sizing the works required to the watercourses to ensure that there is no increased flood risk. Hydraulic models were used to consider the impact of the proposed development on flood risk, and determine the best design for the works required to the watercourses. The proposed mitigation measures have all been integrated into the scheme design. Where new culverts or replacement culverts are being proposed, this will be in accordance with the CIRIA Culvert Design and Operation guide.	Design phase
WE 2	Throughout the scheme	Control of surface water runoff to prevent flooding	The drainage design will take account of the proposed levels at each junction so that any surface water runoff will be intercepted and will not cause localised flooding. The storm runoff from each section of works will discharge at greenfield runoff to the adjacent watercourse. Discharge at each outfall will be limited by a flow control device. Attenuation will be provided by the use of ponds	Design phase

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
WE 3	Listullycurran Road Junction	Channel realignment	At the upstream extent of the model the existing river channel has been realigned providing a 5m buffer along the watercourse to facilitate maintenance. A 900mm diameter culvert has been inserted where the proposed junction crosses the watercourse. Directly downstream Culvert 2 has been removed and the watercourse has been rerouted to follow the base of the embankment with a working strip of 5m. No alterations were made to any cross-sections or culverts downstream of the proposed works.	Construction Phase
WE4	Hillsborough Road Junction & Milebush Road	Channel realignment	The channel will be culverted in a 2,100mm wide by 1,500mm high box culvert, and straightened to avoid sedimentation.	Construction Phase
WE 5	Gowdystown Road Junction	Channel realignment	The modelled improvements at the Gowdystown Road Junction include channel realignment, a new 1,600mm diameter culvert, creating a new section of open channel and upgrading an existing culvert to 1,600mm diameter. Upstream of the proposed culvert the channel has been realigned and straightened.	Construction Phase
WE 6	Skeltons Road/ Drumneath Road Junction	Channel realignment	In order to accommodate the proposed road junction at Skeltons Road, Watercourse J4A needs to be realigned. The existing bridge on this watercourse requires upgrading and a new culvert is required downstream. The channel and culvert capacities were designed so as to convey a 1% AEP flow or, where that was not possible, to not increase the flood risk.	Construction Phase

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
WE 7	Skeltons Road/ Drumneath Road Junction	Channel extension	In order to accommodate the proposed road junction at Skeltons Road, the culverts in Watercourse J4 need to be extended. These culverts were extended using the same characteristics as the existing culverts (size, slope, material) so as to avoid unnecessary head losses. This change was modelled to ensure there was no increase in flood	Construction Phase
WE 8	Skeltons Road/ Drumneath Road Junction	Channel rerouting	In order to accommodate the proposed road junction at Skeltons Road, Watercourse J4C needs to be re-routed to discharge into Watercourse J4A, upstream of its current discharge location. The inlet to the culvert in watercourse J4C requires extending further upstream also. The culvert extension was sized in order to minimise the head water at the culvert inlet. Downstream of the proposed Culvert 2, the additional watercourse has been realigned to follow the base of embankments where the proposed junction crosses the existing watercourse. The same dimensions have been applied where possible as the existing river channel. The bed of this section has been altered to facilitate the flow through the proposed Culvert 2, in accordance with the CIRIA Culvert Design and Operation guide	Construction Phase
WE 9	Waringsford Road Junction proposed layout	Channel diversion and rerouting	At the upstream extent of the model the existing culvert adjacent to the A1, will be upgraded to a 1,500mm diameter culvert. It will be diverted around the foundations of the proposed junction to a further two culverts of 1,500mm diameter. The existing connecting channel has been relocated to link the proposed culvert with the existing culvert passing under the A1. This has been extended where the proposed junction crosses the watercourse. Downstream the existing channel has been abandoned and realigned. At the downstream extent of the model the existing culvert has been extended upstream to allow for the proposed access road to the residential property.	Construction Phase

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
WE 10	Waringsford Road Junction proposed layout	Channel alignment and new channel	The proposed Channel 1 has been aligned to link the proposed culvert outlet to the existing culvert abandoning the existing watercourse. Directly downstream of Culvert 4 a new channel has been aligned to link the extended outlet to the existing watercourse. The existing watercourse has been partially abandoned.	Construction Phase
WE 11	Throughout scheme	Channel alignment and new channel	Mitigation has already been undertaken during the design phase of the proposed development to minimise the potential impact of the project on the water quality by avoidance where possible.	Design phase
WE 12	Throughout scheme	Using Pollution Prevention Guidelines for Best Practice	Pollution Prevention Guidelines (PPGs) are a series of documents developed by the Environment Agency for England and Wales, the Northern Ireland Environment Agency (NIEA) for Northern Ireland and the Scottish Environment Protection Agency (SEPA) for Scotland. The PPGs also make reference to environmental legal obligations and are an acknowledge source of best practice guidance for pollution prevention across different sectors. The DAERA Planning and Environment section has published Standing Advice 4 on Pollution Prevention (DAERA, 2016) and highlights the need for the developer and contractor to apply good practice in relation to pollution prevention and to adhere to the guidance contained within the relevant PPGs. Whilst these PPGs have now been withdrawn they still provide useful information on good practice and DAERA recommend they are used as a source of information and good practice. The following publications provide relevant guidance on general mitigation measures for impacts identified above and will be applied in the mitigation strategy for the development.	All stages
WE 13	Throughout scheme	Sediment control measures	Sediment, including all soils, mud, clay, silt, sand etc., is the single main pollutant generated at construction sites and largely arises from exposed soils by surface water runoff. The adoption of appropriate erosion and sediment controls (e.g. installation of temporary SUDs) during construction is essential to prevent sediment pollution. Sediment control measures, highlighted in the Construction Environmental Management Plan (CEMP), will be used to prevent uncontrolled runoff containing suspended solids being discharged from the site. These measures for control of sediment will be	Designed before construction and functional during construction

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
			prepared well in advance of work commencing on site. The draft CEMP will be updated and issued as final prior to commencement of construction works on site by the appointed contractor and will outline how the contractor will implement the measures identified for sediment control.	
WE 14	Throughout scheme	Contacting relevant authorities	Contractors shall establish contact with the relevant authorities, e.g. NIEA before works commence, with ongoing liaison throughout the construction	Before and during construction
WE 15	Throughout scheme	Using concrete and cement close to water bodies	The use of concrete in close proximity to drains / water bodies requires a great deal of care. Fresh concrete and cement are very alkaline and corrosive and can cause serious pollution in water bodies. It is essential to ensure that the use of wet concrete and cement in or close to any water body is carefully controlled so as to minimise the risk of any material entering the water, particularly from shuttered structures or the washing of equipment.	Construction phase
WE 16	Throughout scheme	Washout water from concrete vehicle and plant discharge must not reach groundwater	Post concrete vehicle and plant discharge it is necessary to clear out excess concrete and cement waste water. Washing out and cleaning of concrete batching plant or ready mix lorries will be carried out in a contained area as far from the surface drainage system as practical. To prevent washout water from entering groundwater systems all washing out will be carried out at a specified location into a contained area lined with an impermeable membrane. Excess water within the wash out area will be siphoned off and containerized for testing and disposal by a suitably licensed contractor as required. Concrete solids will be retained within a wash out skip until ready for collection and disposal by a licensed contractor to a recycling depot.	Construction phase

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
WE 17	Throughout scheme	Plant operating near surface water drainage must be under strict controls	Plant operating close to the surface water drainage system, either the existing drainage or temporary drainage installed as part of the construction phases will be subject to strict controls in relation to the transport of concrete from the point of discharge from the truck-mixer to final discharge into the delivery pipe (tremie). Care will be exercised when slewing concrete skips or mobile concrete pump booms over existing drains to avoid spillage through the use of an appropriately trained banksman who is familiar with the site drainage.	Construction phase
WE 18	Throughout scheme	Adherence to the requirements of the Control of Pollution (Oil Storage) regulations (Northern Ireland) 2010 is imperative.	A key requirement of the Regulations is that oil storage containers covered by the Regulations, fixed or mobile, must have a secondary containment system (of 110% capacity) as defined by the regulations (e.g. a bund, which is an outer wall or enclosure designed to contain the contents of an inner tank, or a drip tray) to ensure that any leaking oil is contained and does not enter the aquatic environment.	Construction phase
WE 19	Throughout scheme	Document for the Control of Pollution (Oil Storage) regulations (Northern Ireland) 2010	All relevant measures outlined in the Guidance Document for the Control of Pollution (Oil Storage) regulations (Northern Ireland) 2010 will be implemented during the construction and operation of the development and are contained within the outline CEMP.	Construction and operation phase
WE 20	Throughout scheme	Refueling of mobile plant will take place within a designated area, on an impermeable surface well away from any drains or water bodies	The risk of spilling fuel is at its greatest during refueling of plant. Refueling of mobile plant will take place within a designated area, on an impermeable surface well away from any drains or water bodies. A spill kit will be kept available and a bunded bowser will be used. Hoses and valves shall be checked regularly for signs of wear, and ensure that they are turned off and securely locked when not in use. The spill tray will be checked daily and emptied for subsequent offsite disposal of any spilt fuel. Toolbox talks will be held to ensure that operatives are fully aware of correct refueling procedures. Any spillages during refueling or any leaks must be reported immediately	Construction phase

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
			to the Project Manager. The spill must be cleared immediately, the ground cleaned and any contaminated sub-soil immediately removed to the site soil quarantine area.	
WE 21	Throughout scheme	Spill Kit will reduce chance of serious damage	Spill kits will be available at locations known to operatives for use in the case of oil or fuel spills.	Construction phase
WE 22	Throughout scheme	Any tanks or drums will be stored in a secure container or compound	The compound will be kept locked when not in use. Bowsers will be stored within site security compounds when not in operation.	Construction phase
WE 23	Throughout scheme	A suitable spill kit or absorbent materials will be held in the vicinity and that an appropriate temporary bund will be put in place	In the event of any spillage, the spilt material will be contained (using absorbents such as sand, soil or commercially available booms or pads) and the relevant agency notified immediately.	Construction phase
WE 24	Throughout scheme	A contingency plan for the works shall also be prepared in accordance with PPG 21 Pollution Incident Response Planning.	The Emergency Spill Response Plan, the content of which is included in the outline CEMP, will detail actions to be taken in the event of an accidental spillage of fuel, chemicals or other hazardous material.	Construction phase
WE 25	Throughout scheme	A suitably qualified Environmental Manager shall be employed and will be notified of all incidents where there has been a breach in agreed environmental management procedures.	Suitable training will be provided to relevant personnel detailed within the Emergency Response Plan to ensure that appropriate and timely actions will be taken should an incident occur.	Construction phase
WE 26	Throughout scheme	Sustainable Urban Drainage (SUDs) will be used	Poorly designed drainage has the potential to exacerbate all the potential impacts to water quality noted above therefore appropriate Sustainable Urban Drainage (SUDs) systems have been incorporated into the design of the proposed development to ensure the quality of the storm water will not compromise the receiving surface or groundwater within and downstream of the application site as detailed above.	All phases

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
WE 27	Throughout scheme	Hydromorphology of the channel to be protected by greenfield runoff rates	The discharge from the storm drainage will be limited to greenfield runoff rates. This will ensure that the flow from the storm drainage network will not exceed greenfield rates and will therefore not impact the hydromorphology of the channel through erosion effects.	All phases
WE 28	Throughout scheme	Highway Agency Risk Water Assessment	A HAWRAT Assessment was carried to identify the pollution risk of the impacts from routine road drainage as presented in the DMRB (Annex 1 of HD 45/09, Volume 11, Section 3, Part 10 Road Drainage and the Water Environment [Highways Agency, 2009]) to the receiving watercourses at each junction location. The simple method (Method A) for the assessment has been used to determine the pollution risk. The purpose of this assessment is to assist highway designers to decide whether or not pollution mitigation measures are needed in specific circumstances.	Design Phase
WE 29	Throughout scheme	Attenuation ponds to treat water	No mitigation is required for the road drainage; however the attenuation ponds will provide a level of water quality treatment for the final discharge from the road drainage and will lead to an improvement above the existing road drainage at the junction upgrades.	Operational phase
WE 30	Throughout scheme	Mitigate against habitat loss by avoidance and minimisation.	The best mitigation strategy to habitat loss is avoidance and where this is not possible minimisation. Where the proposed junction upgrades cross water bodies along the scheme any significant impact to the channel and bankside zones through habitat loss will be avoided where possible. However, as identified by the desk based assessment and the field surveys, the watercourses in question are of low significance and sensitivity and are not expected to be impacted by the proposal to culvert or realign short stretches.	Design Phase
WE 31	Throughout scheme	New channels to replicate habitat characteristics of existing channel	The design and construction of any new channel with natural habitat characteristics will where possible replicate the existing and will incorporate riparian vegetation and other natural features. Materials from original channel may be re-used to minimise quantities of new material required.	Design and construction phase

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
WE 32	Throughout scheme	Improved channel design to reduce sedimentation	The construction of a two- stage channel will be implemented if and when deemed applicable based on the size and flow of the existing watercourse. Under the current scenario, some channels were found to be wide and shallow resulting in low velocity, particularly during low flow conditions, which allows for extensive sedimentation. The design of a two-stage channel incorporates the dredging of a section of the river bed to improve channel conveyance and maintain stream velocity during low flows, an example of which is shown below in Figure 8.16. This design mitigates the risk of sedimentation and as such improves habitat and hydromorphological conditions.	Design phase
Biodiversity				
B 1	Throughout scheme	Ecological Clerk of Works (ECoW) appointed to ensure compliance with wildlife legislation & implementation of ecological mitigation in the EIAR, HRA Report and the CEMP.	The ECoW will provide advice in relation to legislation relating to the protection of ecological features; to provide advice on the timing of works and the implementation of mitigation and compensation measures; to apply for relevant derogation licenses; to monitor identified works; and to produce site inspection reports.	Before and during construction phase
B 2	Throughout scheme	Protection of water courses with hydrological links to European sites and all water courses	Implementation of mitigation measures as set out for the Water Environment to prevent the risk of pollution and deterioration of the water quality of downstream European sites.	All phases
B 3	Throughout scheme	Habitats will be retained and protected where possible	Existing woodland, individual trees and hedgerows will be retained where possible and shall be protected during the construction phase in accordance with BS: 5837 2012 ‘Trees in relation to design, demolition and construction – Recommendations.	All phases
B 4	Throughout scheme	Habitats will be reinstated where appropriate	Reinstatement of habitats will be carried out in accordance with mitigation measures as set out for Landscape and Visual prioritising the use of native species to create new woodland, screening woodland, areas of low scrub and hedgerows. A proportion of the hedgerows replanted will be species-rich hedgerows containing five or more native woody species in a 30 m length.	After construction phase

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
B 5	Throughout scheme	Protection of Bat Species	A Bat Roost Inspection Survey of Buildings to be demolished and Trees scheduled for removal will be completed by an ECoW. If bats are found to be present, a derogation license must obtained from NIEA for the exclusion of bats and all necessary compensation measures to ensure no detriment to the maintenance of the population at a favourable conservation status. The license will be issued to the ECoW who will supervise all licensed activities.	Before construction phase
B 6	Throughout scheme	Protection of Bat Species	Provision of 3 No. 1FF Schwegler Bat Boxes With Built-in Wooden Rear Panel; 3 No. 3FS Schwegler Bat Colony Boxes; and 3 No. 1FFH Schwegler Universal Bat Box. Bat boxes to be erected by ECoW on retained trees prior to the demolition of any building or tree removal. Reinstatement of habitats in accordance with mitigation measures as set out for Landscape and Visual.	Before construction phase (before any demolition) and after construction
B 7	Throughout scheme	Protection of Otters	Implementation of mitigation measures as set out for the Water Environment to prevent the risk of pollution and deterioration of the water quality. If any otter underground holts or above ground couches are found either within or within 30 m of the scheme extents or an otter natal den is found within 150 m of the scheme extents, work will stop immediately to avoid breaking the law and the ECoW will be contacted. Construction work within 30 m of an otter holt or couch and/or 150 m of an otter natal den will require a derogation licence from NIEA to permit otherwise illegal activities that could result in disturbance to an otter and/or damage or destruction of an otter holt.	All phases
B 8	Throughout scheme	Protection of Badgers	Compensatory measures to counterbalance or offset the significant adverse effects of the proposed development on badgers will be carried out in accordance with DMRB Volume 10 Section 4 Part 2.	All phases
B 9	Throughout scheme	Protection of Badgers	An artificial badger sett(s) will be created a minimum of six months prior to any existing sett closure. The artificial sett will be monitored throughout the duration of the construction phase of the proposed development.	Construction phase

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
B 10	Throughout scheme	Protection of Badgers	A derogation license will be obtained from the NIEA for the exclusion and permanent closure of a total of seven badger setts. Licensed activities will not take place during the badger breeding season which extends from 30th November to the 1st July. The license will be issued to the ECoW who will supervise all licensed activities. An ECoW will monitor badger activity throughout construction.	Construction phase
B 11	Throughout scheme	Protection of Badgers	An Ecological Exclusion Zone (EEZ) will be set up around one badger sett identified within the scheme extents of the proposed development. Temporary hi-visibility fencing will be erected 25 m from the nearest sett entrance. No vehicles, storage or stockpiling of materials will be allowed within the EEZ. An ECoW will supervise the erection of each EEZ and monitor badger activity throughout construction. Fencing will be inspected daily by the Contractor Nominated Representative to ensure that it is in working condition.	Construction phase
B 12	Throughout scheme	Protection of Badgers	Construction works in the vicinity of a badger sett EEZ will cease two hours prior to sunset. Open excavations and/or trenches will either be covered to avoid access by wildlife or a means of escape installed to facilitate egress at the end of each working day. All pipes will be capped overnight to prevent access by mammals.	Construction phase
B 13	Throughout scheme	Protection of Badgers	If any additional badge setts are found within the Construction Corridor or within 25 m of construction works, work will stop immediately to avoid breaking the law and the ECoW will be contacted. Construction work within 25 m of a badger sett will require a derogation license from NIEA to permit otherwise illegal activities that could result in disturbance to a badger and/or damage or destruction of a badger sett.	Construction phase
B 14	Throughout scheme	Bird Protection	Pre-construction site clearance works and removal of vegetation including trees, scrub, hedgerows and shrubs will take place outside the bird breeding season which extends between 1st March and 31st August inclusive. If pre-construction site clearance and removal of vegetation is deemed necessary within the bird breeding season an ECoW will	All phases

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
			undertake a survey to check for breeding birds immediately prior to works and confirm that breeding birds will be protected from harm during works. Reinstatement of habitats in accordance with mitigation measures as set out for Landscape and Visual.	
B 15	Throughout scheme	Limiting spread of invasive species	An EEZ will be set up around invasive non-native species at Listullycurran Road Junction. Temporary hi-visibility fencing will be erected 10 m horizontally from the each stand and signs erected warning of the presence of invasive non-native species. An ECoW will supervise the erection of each EEZ at invasive non-native species locations throughout construction. Fencing will be inspected daily by the Contractors Nominated Representative to ensure that it is in working condition.	Construction phase
B 16	Throughout scheme	Ecological Constraints and Opportunities Plan drawing (ECOP)	An Ecological Constraints and Opportunities Plan drawing (ECOP) will be prepared and included within the Construction Environmental Management Plan (CEMP) for the project post- planning to provide an overview of all ecological constraints. Method Statements will accompany the ECOP, where necessary, to provide detailed information on pre- construction vegetation clearance; on creation of artificial badger setts and the permanent closure of badger setts and on the management of invasive non-native species.	Pre – construction
Air Quality				
AQ 1	Junction improvement locations	Stakeholder communications plan	Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.	Pre- construction
AQ 2	Junction improvement locations	Make clear who air quality responsibility lies with	Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.	Prior to and during construction
AQ 3	Junction improvement locations	Ensure relevant people can be contacted quickly	Display the head or regional office contact information.	Construction phase
AQ 4	Junction improvement	Develop Dust Management	Develop and implement a Dust Management Plan (DMP), which may	Before and

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
	locations	Plan (DMP)	include measures to control other emissions, approved by the Local Authority. Adopting the measure as detailed here and set out in the outline CEMP.	during construction phase
AQ 5	Throughout scheme	Record complaints and address in a timely manner	Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.	Construction phase
AQ 6	N/A	Making Complaints accessible	Make the complaints log available to the local authority when asked.	Construction phase
AQ 7	Throughout scheme	Exceptional incidents recorded and action taken to resolve	Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book.	Construction phase
AQ 8	Throughout scheme	Ensure to coordinate with other nearby sites	Hold regular liaison meetings with other high risk construction sites within 500 m of the site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off- site transport/ deliveries which might be using the same strategic road network routes.	Before and during construction
AQ 9	Junction improvement locations	Regular inspections and reporting to local authority	Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This will include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100 m of site boundary, with cleaning to be provided if necessary.	Construction phase
AQ 10	Junction improvement locations	Ensure inspections occur to comply with Dust Management Plan	Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked.	Construction phase
AQ 11	Junction improvement locations	Increase inspections when necessary	Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.	Construction phase
AQ 12	Junction improvement locations	Baseline and continuous monitoring locations	If necessary (after discussion with local authority), agree dust deposition, dust flux, or real-time PM10 continuous monitoring	Before and during

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
			locations with the Local Authority. Where possible commence baseline monitoring at least three months before work commences on site or, if it a large site, before work on a phase commences.	construction
AQ 13	Junction improvement locations	Ensure dust causing activities are far from receptors as possible	Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.	Before and during Construction
AQ 14	Junction improvement locations	Controlling fugitive dust escape with barriers	Erect solid screens or barriers around dusty activities or at the site boundary. Screens are at least as high as any stockpiles on site.	Construction phase
AQ 15	Junction improvement locations	Controlling fugitive dust	Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period	Construction phase
AQ 16	Junction improvement locations	Avoid runoff (to ensure mud or muddy water is not spread onto adjacent roads and potentially, when dry, is a source of fugitive dust)	Avoid site runoff of water or mud.	Construction phase
AQ 17	Junction improvement locations	Managing fugitive dust spread	Keep site fencing, barriers and scaffolding clean using wet methods.	Construction phase
AQ 18	Junction improvement locations	Managing fugitive dust escape	Remove materials that have a potential to produce dust from site as soon as possible, unless being re- used on site. If they are being re-used on-site cover as described below.	Construction phase
AQ 19	Junction improvement locations	Managing fugitive dust escape	Cover, seed or fence stockpiles to prevent wind whipping.	Construction phase
AQ 20	Throughout scheme	Controlling emissions	Ensure all on-road vehicles are maintained	Construction phase
AQ 21	Throughout scheme	Controlling emissions	Ensure all vehicles switch off engines when stationary- no idling vehicles.	Construction phase
AQ 22	Throughout scheme	Controlling emissions	Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.	Construction phase
AQ 23	Junction improvement	Managing fugitive dust	Impose and signpost a maximum-speed-limit of 15 mph on surfaced	Construction

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
	locations	escape	and 10 mph on unsurfaced haul roads and work areas for junction improvements. Main line may require other relevant health and safety speed control measures.	phase
AQ 24	N/A	Controlling emissions	Produce a Construction Logistics Plan/Traffic Management Plan to manage the sustainable delivery of goods and materials.	Before and during construction
AQ 25	N/A	Controlling emissions	Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing)	Before and during construction phase
AQ 26	Junction improvement locations	Managing fugitive dust escape	Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.	Construction phase
AQ27	Junction improvement locations	Managing fugitive dust escape	Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.	Construction phase
AQ 28	Junction improvement locations	Managing fugitive dust escape	Use enclosed chutes and conveyors and covered skips as appropriate.	Construction phase
AQ 29	Junction improvement locations	Managing fugitive dust escape	Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.	Construction phase
AQ 30	Junction improvement locations	Managing fugitive dust escape	Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.	Construction phase
AQ 31	Throughout scheme	Preventing excess emissions	Avoid bonfires and burning of waste materials.	Construction phase
AQ 32	Junction improvement	Managing fugitive dust	Soft strip inside buildings before demolition (retaining walls and	Before

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
	locations	escape	windows in the rest of the building where possible, to provide a screen against dust).	demolition
AQ 33	Junction improvement locations	Managing fugitive dust escape	Avoid scabbling (roughening of concrete surfaces) if possible.	Construction phase
AQ 34	Throughout scheme	Managing fugitive dust escape	If applicable, ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.	Construction phase
AQ 35	Junction improvement locations	Managing fugitive dust escape	For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.	Construction phase
AQ 36	Junction improvement locations	Managing fugitive dust escape	Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.	Construction phase
AQ 37	Junction improvement locations	Managing fugitive dust escape	Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.	Construction phase
Climate				
C 1	Throughout scheme	Reducing carbon impacts	Measures will be employed to reduce the use of materials and the generation of waste in relation to the Proposed Scheme. There is significant relationship between materials re-use and the avoidance of the generation of waste. Therefore, there is a considerable overlap between the mitigation measures for materials and waste, which will in turn lead to a reduction in the embodied carbon impacts from the Proposed Scheme.	Before and during construction
C 2	Throughout scheme	Follow 'Waste Hierarchy'	The Contractor will apply the principles of the 'Waste Hierarchy' (Prevention, Preparing for Re-use, Recycling, Other Recovery, Disposal to minimise waste generation. Where re-use is not possible within the Proposed Scheme, alternative re-use and recycling options will be sought off-site with disposal the final option, with clear justification of options provided.	Construction phase

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
C 3	Throughout scheme	Responsibly source materials	Where practicable, the key material elements (i.e. aggregates, asphalt, cement, precast concrete products, ready-mixed concrete and steel) used within the Proposed Scheme shall be specified to be responsibly sourced from suppliers who will have a minimum ISO 14001 certification	Before and during construction
C 4	Throughout scheme	Possible use of alternatives to primary aggregates	Alternatives to primary aggregates may be investigated, including opportunities to use recycled or secondary aggregates in the construction of the Proposed Scheme; either sourced from construction, demolition and excavation waste obtained off-site; or secondary aggregates obtained from a non- construction or post-consumer or industrial by-product source.	Before construction
Noise and Vibration				
NV 1	Junction improvement locations	Work must occur at appropriate times	Construction working hours are proposed to be between the hours of 08:00 and 19:00 from Monday to Friday and 08:00 to 13:30 on Saturdays.	Construction phase
NV 2	Junction improvement locations	Reducing construction noise	A temporary noise barrier (approximately 2m height) will be placed between the construction activities and all properties in close proximity to the construction site (at least all properties within 100m of the proposed site). If properly installed, such a barrier can achieve between 10-15dB(A) attenuation.	Construction phase
NV 3	Junction improvement locations	A detailed Plan of Works will be prepared	A detailed Plan of Works will be prepared prior to the construction phase outlining all measures undertaken to reduce construction noise levels emanating from the proposed site. This plan will detail a range of measures aimed at controlling construction activities at the boundary of the site adjacent to the nearest noise sensitive properties and additional general measures aimed at reducing noise levels from the proposed site. British Standard BS5228:2009+A1:2014 – Noise and vibration control on construction and open sites outlines a range of measures that can be used to reduce the impact of construction phase noise on the nearest noise sensitive receptors.	Before construction
NV 4	Throughout scheme	Relevant authorities and residents will be informed of	In order to minimise the likelihood of complaints, Armagh City, Banbridge and Craigavon Borough Council and Lisburn and	Before and during

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		work	Castlereagh City Council and affected residents will be kept informed of the works to be carried out and of any proposals for work outside normal hours. A complaints procedure will be operated by the Contractor throughout the construction phase.	construction
NV 5	Junction improvement locations	Verifying worst case noise levels and ensuring mitigation is appropriate	It is recommended that on- site monitoring of noise levels and construction activities be undertaken in order to verify the predicted worst-case noise levels and also to ensure that all available and appropriate measures are implemented to minimise the potential impact upon local sensitive receptors.	Construction phase
Traffic and Transport				
TT 1	Throughout scheme	Limit traffic disruption	A Traffic Management Plan will be developed by the contractor detailing a phased construction programme.	Before construction
TT 2	Throughout scheme	Limit traffic disruption	During construction existing capacity will generally be maintained on the A1 in both directions so that disruption will be minimal. There may be occasional exceptions to this where short-term lane closures will be required to allow certain elements of work to be completed.	During construction
TT 3	Throughout scheme	Limit traffic disruption	Occasional night and Sunday working will be required for some activities (e.g. carriageway tie-ins) to minimise traffic disruption on the local road network.	During construction
TT 4	Throughout scheme	Limit traffic disruption	Construction activities will create additional traffic movements and some activities will require traffic management measures.	During construction
TT 5	Throughout scheme	Limit noise impact	Noise limits will be controlled by requirements in the contract documents.	During construction
Cultural Heritage				
CH 1	Identified Areas of High Archaeological Potential located throughout scheme	Identify presence or otherwise of sub-surface archaeological features with preservation *in situ* and/or recording of same as appropriate	Strategic Programme of Licensed Archaeological Test Trenching and evaluation per agreements with DfC:HED and post-evaluation/excavation reporting as appropriate	Before construction: Advance works programme

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
CH 2	All greenfield areas identified of low to moderate archaeological potential throughout scheme	Identify presence or otherwise of sub-surface archaeological features with preservation *in situ* and/or recording of same as appropriate	Licensed archaeological monitoring of topsoil stripping advance groundworks programme per agreements with DfC:HED and post-evaluation/excavation reporting as appropriate	Post planning but at the earliest outset of construction-related groundworks/ earthworks
CH 3	Gowdystown Junction and recorded rath site DOW027:025	Identify presence or otherwise of sub-surface archaeological features with preservation *in situ* and/or recording of same as appropriate	Strategic additional planning of the licensed archaeological monitoring programme at previously tested area adjacent rath site DOW027:025 per agreements with DfC:HED and post-evaluation/excavation reporting as appropriate	Post planning but at the earliest outset of construction-related groundworks/ earthworks
CH 4	Areas adjacent recorded SMR sites throughout scheme	Avoid inadvertent damage to recorded archaeological sites	Site boundary limits/extents to be identified in order to define exclusion zones in the vicinity of existing recorded archaeological sites by means of clearly marked and fenced-off areas. No vehicular access/movements, ground excavation, dumping of spoil or any other associated sites works within these exclusion zones.	Post planning but at the earliest outset of construction-related groundworks/ earthworks
CH 5	Tullyhinan House HB17/13/006 & scheduled rath site DOW027:055	Further reduce indirect slight/neutral visual impact on cultural heritage structures	Retention of existing hedgerows/mature tree boundaries together with additional strategic tree- planting where feasible	Before and during construction
CH 6	Identified recorded Cultural Heritage sites located immediately adjacent the scheme	Avoid inadvertent direct/indirect damage to recorded Cultural Heritage sites	Due cognisance to be taken of recorded sites and provision of clearly defined exclusion zones, as necessary, for any future on-going maintenance/upgrading works	Post construction (Operational Stage)
Population and Health				
PH 1	Throughout scheme	Reducing impacts on	Mitigation is proposed in the form of an outline CEMP addressing air	Before and

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		population and health	quality, noise and transport precursors to potential adverse health outcomes. In addition, a Noise Management Plan will be provided which details mitigation measures and monitoring regimes to help reduce and enforce construction noise levels to within the relevant limit.	during construction
PH 2	Throughout scheme	Reducing impacts on population and health	Further population and health mitigation will be limited to ongoing engagement with local communities to raise awareness of any particularly disruptive construction activities.	During construction
Land Use				
LU 1	Throughout scheme	Using best practice measures for land restoration	The restoration of temporary areas of land required for construction to agricultural use shall implement recognised best practice measures where possible as seen in the Land Use chapter	After construction
LU 2	Throughout scheme	Using best practice measures to reduce impact on farm holdings	Where possible, best practice measures to reduce the impact on farm holdings during the construction period shall be used as seen in the Land Use chapter	During construction
Pedestrians, Cyclists, Equestrians and Community Effects				
PCEC 1	Throughout scheme	Replace private driveways	Design measures to ensure that private driveways are replaced on a like by like basis or where this is not appropriate, to ensure that agreeable alternative solutions are brought forward which are acceptable to residents	Design phase
PCEC 1	Throughout scheme	Maintain access to community facilities	The retention of access to all community facilities opening onto the A1. Where accesses have changed this is on safety grounds only and appropriate alternatives have been provided	Design phase
PCEC 1	Throughout scheme	Reduce impact on journey time	The provision of appropriately located Grade Separated Junctions to improve safety but which also ensure that impacts on journey times are minimised	Design phase
PCEC 1	Throughout scheme	Ensure bus stops are	The provision of upgraded and appropriately located bus stop	Design phase

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
		improved and located appropriately	facilities with associated shelter, parking and waiting facilities	
PCEC 1	Throughout scheme	Reduce construction impacts	A Construction Environmental Management Plan (CEMP) - to be agreed with DFI Roads and other statutory bodies – will ensure that construction impacts are minimised	All phases
PCEC 1	Throughout scheme	Ensure community facilities are easily accessible	Provision of alternative accesses to Community Facilities	Design phase
Material Assets				
MA 1	Throughout scheme	Ensuring appropriate mitigation is applied to reduce any impacts the scheme has for Firmus Gas.	There is considerable risk to the pipe here and therefore mitigating options need to be considered. A meeting in 2016 concluded that drawings outlining each of the options will be created. It was noted that if the gas line was to remain in the verge, at the end of the retaining structure there may be section of approximately 20m, where increased cover will occur over the existing line. Further suggestions indicated, that cover of up to 1.5m for short sections will be acceptable. The potential mitigating options are: • The pipe line remains in-situ with additional steel plate protection. Noted that the contractor could do this in advance of construction works at reasonable cost, if adequate cover (0.6m) can be maintained and that there is no conflict with retaining structures. • Pipeline to be lowered for approximately 100m to achieve depths of 0.6-1.0m below carriageway level on the merge lane. • Approximately 200m of pipeline to be slewed into running lane to clear any retaining structure/ construction disruption and maintain adequate depth for gas line. PF noted that this would be very expensive due to welding of 12m pipe lengths (estimated 60- 100m per day + testing + connections (i.e. 1 week). Similar the pipeline could be slewed into new verge on slip road. There may be potential to install a spur off any diversion to the north of the slip, to provide the houses and potentially Banbridge. This may be mutually beneficial to both DfI Roads and Firmus Energy.	Construction phase

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
MA 2	J1 Listullycurran Road Junction	Ensuring appropriate mitigation is applied to reduce any impacts the scheme has Northern Ireland Electricity	• Option 1 will require the removal of one length of line and a cable installed in a duct along the Listullycurran road to serve a B&B. • Option 2 (probably not required) involves supplying the 3 houses on the south bound side if the access lane is to be orientated to the front of the houses. (At the moment it is likely that the access road will be to the rear of the houses).	Construction phase
MA 3	J2 Milebush Link Road Junction	Ensuring appropriate mitigation is applied to reduce any impacts the scheme has Northern Ireland Electricity	The current proposal for the link road will require the existing pole on the 11kv line to be raised to cater for the new road levels. Road levels will be checked against the pole height for a clearance road to line of 6.2m. Results will be sent to NIE. There is a possibility that the two poles will need to be raised	Construction phase
MA 4	J3 Gowdystown Road Junction	Ensuring appropriate mitigation is applied to reduce any impacts the scheme has Northern Ireland Electricity	The proposal put forward for pricing will involve 2 new sections of line to take the existing lines out of the junction footprint. A new link will be provided from Gowdystown Road West to the existing line to the north of the Junction. A second line will cross the A1 and run south of Gowdystown Road East, prior to connecting to serve the existing properties at the top of the hill.	Construction phase
MA 5	J4 Skeltons Road Junction	Ensuring appropriate mitigation is applied to reduce any impacts the scheme has Northern Ireland Electricity	The exact position is to be determined. It is expected that the line is in an iron pipe across the existing drain, visible from the road. NIE will supply a red duct which will be installed by the contractor. NIE will then do the connection works.	Construction phase

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
MA 6	J5 Waringsford Road Junction	Ensuring appropriate mitigation is applied to reduce any impacts the scheme has Northern Ireland Electricity	There are multiple challenges associated with this layout which will involve the relocation of HV, MV and LV lines, either under or over ground. There is also the possibility that a substation will be relocated. • The junction will be split into 4 jobs , 33kv, 11kv and two LV (N&S bound) • 33kv and 11Lv lines will need to run under the road (directional drilling) • The 11kv substation and switch room will need to be moved. NIE will select a location for benefit of C3. Exact location will be determined at C4.	Construction phase
MA 7	J6 Castlewellan Road Junction	Ensuring appropriate mitigation is applied to reduce any impacts the scheme has Northern Ireland Electricity	• Potential for a new duct, including cutting and installing a new length of line. This could be installed the length of the bridge and junction. NIE will price a worst case scenario for supply. • NIE notes that the line could be isolated for limited periods to facilitate works.	
MA 8	J1 Listullycurran Road Junction	Ensuring appropriate mitigation is applied to reduce any impacts the scheme has Northern Ireland Water	• Relocation of existing mains along North bound hard shoulder into proposed diverge footway/verge and connect onto existing main on the Listullycurran Road. • Lay new main along proposed accommodation lane to link with existing crossing A1. General note for all equipment: Meters and fire hydrants if in proposed carriageway will be relocated to verge. Sluice valve and Air valve will be looked at individually.	Construction phase
MA 9	J2 Milebush Link Road Junction	Ensuring appropriate mitigation is applied to reduce any impacts the	• The current proposal for the link road does not affect the existing mains, however if there is inadequate cover then the mains will be lowered. Hand digging will be carried out to determine level:	Construction phase

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
		scheme has Northern Ireland Water	• General notes for all equipment: Road 900mm cover & verge should 750mm cover. • Will be continued access to NIW equipment.	
MA 10	J3 Gowdystown Road Junction	Ensuring appropriate mitigation is applied to reduce any impacts the scheme has Northern Ireland Water	• Reconfiguration of mains on Gowdystown road east, existing PRV's will need to be moved into verge. • Sluice valves on mains located in hard shoulder can remain and any hydrants will need to be relocated into verge. • Existing crossing (A1) to remain and will be picked up at end of NB diverge with new mains being laid along verge before reconnection further down the Gowdystown Road West. • The main running along the old line of the A1 Gowdystown West may be abandoned.	Construction phase
MA 11	J4 Skeltons Road Junction	Ensuring appropriate mitigation is applied to reduce any impacts the scheme has Northern Ireland Water	• The mains crossing the existing A1 to be abandoned with a new 180mm being required to follow new link roads and cross bridge deck. An Allowance will be made within deck to have a 250mm sleeve, • A cross section of bridge at Castlewellan to be reviewed. • Access required to remaining equipment after closing up Halfway Road. • New main to be laid in section of Tullyhenan road. • Connection also to be made to dwellings on Skeltons road along with meters on the SBM.	Construction phase
MA 12	J5 Waringsford Road Junction	Ensuring appropriate mitigation is applied to reduce any impacts the scheme has Northern Ireland Water	• The reconfiguration of mains on the Waringsford road junction. There are several cabinets that house radio controlled equipment which will need to be relocated, either further down the A1 or to an area on the Waringsford road. • Mains crossing the A1 can remain in place. • A PRV currently set up in the hard shoulder will need to be relocated into footway/verge. • Valves located in the North bound shoulder will need to be relocate to verge. The main can remain in the hard shoulder. • Any existing meters will be reconnected.	Construction phase
MA 13	J6 Castlewellan Road Junction	Northern Ireland Water	• A gravity foul sewer currently runs across the north bridge deck and at present has 1m cover. Protection will be required if reduced. • There will be no requirement to adjust any water mains. It was noted	Construction phase

Mitigation Item No.	Approximate Chainage/Location	Mitigation Objective and Commitment	Potential Mitigation Measure	Potential Timing of Mitigation Measure
			that a HDPE was inserted within a steel pipe on the south footway of the bridge deck.	
MA 14	J1 Listullycurran Road Junction	Ensuring appropriate mitigation is applied to reduce any impacts the scheme has British Telecom	• Relocation of timber poles along north bound merge and existing footway box will also have to be upgraded to a carriageway box. • BT have no issues with network and chambers remaining in hard shoulder or proposed merge/diverge lanes. • Due to construction on the new embankment on the Listullycurran road, existing underground and overhead cables will need to be re-routed and poles extended. • BT would like to future proof the Listullycurran road and will propose new ducts along the left hand side of the link road.	Construction phase
MA 15	J3 Gowdystown Road Junction	Ensuring appropriate mitigation is applied to reduce any impacts the scheme has British Telecom	• Overhead lines coming from cabinets at the end of the south bound diverge lanes will now be ducted underground and will follow the verge of the link road. • There will also be a rerouting of the network along the Gowdystown Road east. The existing cabinets will need to be relocated as they will be very close to the running lanes. • The network on Gowdystown West may need to be relocated due to the level of the proposed link road. • Overhead lines will now be linked with underground cables from Gowdystown Road to the old A1 road north of the NRM.	Construction phase
MA 16	J4 Skeltons Road Junction	Ensuring appropriate mitigation is applied to reduce any impacts the scheme has on British Telecom	• A new underground network from the Drumneath Road across new bridge to Skeltons Road, a second proposal may be tabled to upgrade the link to the existing crossing located on the edge of the SBD. • Access to network still required when Halfway road is closed off. • Connection to existing dwellings to be finalised.	Construction phase
MA 17	J5 Waringsford Road Junction	Ensuring appropriate mitigation is applied to reduce any impacts the scheme has on British Telecom	• The relocation of exiting cabinets on the Waringsford Road due to the location of the proposed embankment. • A new underground network will be laid in the verge of the proposed link road, linking on to the Quarry Road.	Construction phase

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MA 18	J6 Castlewellan Road Junction	Ensuring appropriate mitigation is applied to reduce any impacts the scheme has on British Telecom	• A cost estimate for the relocation of cabinets located at the top of the merge cut along the Chinauley road, but this could be designed out. • BT Road crossing on the Castlewellan Road may need to be lowered and diverted due to construction of the concrete retainer walls of merge lane.	Construction phase