



M7 Naas to Newbridge By-Pass Upgrade Scheme

Motorway Order and Environmental Impact Statement

Oral Hearing

Introduction to EIS

Brief of Evidence

By
Andrew Warwick
Roughan & O'Donovan Consulting Engineers

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1.0 INTRODUCTION

Name, Qualifications and Experience

- 1.1 My name is Andrew Warwick; I undertook the role of EIA Coordinator for the M7 Naas to Newbridge By-pass Upgrade Scheme.
- 1.2 I hold an Honours degree in Environmental Biology, a Masters degree in Applied Environmental Sciences and a Masters degree in Environmental Planning. I am a full Member of the Chartered Institute of Ecology and Environmental Management.
- 1.3 I am a Senior Environmental Scientist with Roughan & O'Donovan Consulting Engineers and have been undertaking the role of EIA Coordinator for the past 6 years. My previous experience includes five years working for the Northern Ireland Environment Agency.

Introduction

- 1.4 The Brief is entitled Introduction to the EIS and it provides a brief overview of the scheme and the principal environmental impacts and introduces the team whom were involved with the compilation of the EIS. Subsequently the brief deals with the following chapters of the EIS:
- Chapter 10: Soils and Geology;
 - Chapter 12: Human Beings;
 - Chapter 17: Resource and Waste Management; and
 - Chapters 18 and 19: Interactions and Cumulative Impacts.

2.0 SCHEME OVERVIEW

- 2.1 As described in detail by my colleague (Joe Kelly), the proposed scheme involves the widening of approximately 13km of the M7 from two lanes to three lanes between Junction 9 Maudlins and Junction 11 the M7 / M9 split; an upgraded Newhall Interchange connecting directly to the R445; and four attenuation ponds to address the additional surface water run-off and manage existing flooding.
- 2.2 The widened motorway will follow the alignment of the existing road both horizontally and vertically; and throughout the full length of the scheme all of the widening will be constructed within the existing wide grass median / central reserve. To visualise the works required it is worth referencing Plates 4.8, 4.9 and 4.10 included within Chapter 4 of the EIS (Page 4/7). Plate 4.8 is now presented on the overhead projector. This is the construction phase of the recently completed M1 Widening, which also widened into the existing wide grass median.



EIS Plate 4.8: M1 Widening

3.0 PRINCIPAL ENVIRONMENTAL IMPACTS

- 3.1 The primary direct physical impact of the M7 Naas to Newbridge By-pass Upgrade Scheme is the loss of the existing grass motorway median. Outside of the motorway boundary direct impacts occur as a result of the construction of the four proposed attenuation ponds and the construction of the new roundabouts and motorway on and off slips required for the new interchange.
- 3.2 From an environmental assessment perspective these direct physical impacts are not significant. This is confirmed by the assessments which address the natural and historic environment, such as ecology, hydrogeology, soils and geology and archaeology, which have each concluded that there is no significant impact on these aspects of the environment.
- 3.3 However from the outset it was clear and acknowledged that the more significant environmental effects which could arise would be those impacts which could affect people living in close proximity to the motorway, in particular noise, air quality and visual impact arising during both the construction and operational phases. The primary issue, which has been confirmed by the submissions, relates to the existing noise levels experienced due to the presence and proximity of the M7 motorway.
- 3.4 Each of these aspects of the environment has been assessed and examined in detail by the specialist who undertook the assessment. The specialists will respond to each of the submissions received by An Bord Pleanála and will endeavour to answer any further concerns raised with regard their area of expertise.

4.0 THE ENVIRONMENTAL IMPACT STATEMENT

- 4.1 An Environmental Impact Statement presents the likely significant effects on the environment of a proposed development.
- 4.2 Kildare County Council commissioned ROD – AECOM Alliance to compile the EIS for the M7 Naas to Newbridge Bypass Upgrade Scheme in December 2011. The EIS, as presented, was prepared by ROD – AECOM Alliance and a team of specialists in conjunction with Kildare National Roads Office.
- 4.3 The team of environmental specialists, who worked on the scheme, and from whom we shall hear shortly, are as follows:
- Noise and Vibration – Jennifer Harmon of AWN Consulting; and
 - Air Quality and Climate – Dr Ed Porter of AWN Consulting;
 - Landscape and Visual Assessment – Richard Butler of Cunnane Stratton Reynolds;
 - Agronomy and Material Assets – John Bligh of John Bligh and Associates;
 - Ecology – Paul Murphy of EirEco Environmental Consultants;
 - Hydrogeology – Dr Conor Quinlan of Minerex Environmental Ltd;
 - Hydrology – Eoin Cullinane, Senior Environmental Engineer with Roughan & O'Donovan;
 - Archaeology, Architecture and Cultural Heritage – Faith Bailey of Irish Archaeological Consultancy Ltd;
- 4.4 Before asking Jennifer from AWN Consulting to present a review of the Noise Impact Assessment I would like to deal with the following chapters of the EIS – Soils and Geology, Human Beings, Resource and Waste Management and Interactions and Cumulative Impacts.

Soils and Geology

- 4.5 Chapter 10 of the EIS reviews the potential impact on the underlying soils and geology. There are no important or significant geological features, such as karst features or geological heritage areas in the study area. The motorway widening does not require significant cut or fill as it follows the existing motorway alignment. As such it is concluded that the impact on the geological environment is not significant.
- 4.6 With respect to soils and subsoils the only significant earthworks required are for the construction of the new interchange. This impact on the local soil resource is not significant. The only recommended mitigation measure is therefore the effective re-use of material on site.

Human Beings

- 4.7 Chapter 12 of the EIS, which is entitled 'Human Beings', examines journey characteristics, community severance, journey amenity and the local economy. The issue of real '*human impacts*' or the impact on individual residential properties, relates more to noise impacts, air quality impacts and visual impacts. These impacts

are not addressed within Chapter 12 of the EIS but will each be addressed in detail by the respective specialists.

- 4.8 Chapter 12 of the EIS concludes that the completed and operational scheme will result in a reduction in congestion and improved journey times on both the M7 and the local road network; and as a result there will be an improvement in journey amenity.
- 4.9 The closure of the existing Newhall Interchange and associated on and off slips will have some effect on the journey characteristics of those users of the existing Interchange. The most significant of these will be on the east bound journeys (toward Dublin) from the Rathangan Road. The loss of the current east bound on slip will result in journeys from here to Dublin being required to cross the motorway and travel west for approximately 700m to access the new interchange. With respect to journey characteristics and journey times this impact is considered to be slight and it is believed that journey patterns will be maintained.
- 4.10 During construction, the phasing of works and the maintenance of two running lanes on the motorway ensures that any increase in congestion experienced during the AM and PM peaks will not be significant; and similarly by maintaining the operational capability of the existing interchange and having in place an effective traffic management plan on the R445 the construction of the new roundabouts on the R445 will not cause significant congestion or delay.
- 4.11 The proposed scheme does not create or exacerbate any instance of community severance and will have positive economic benefits through congestion reduction.

Resource and Waste Management

- 4.12 As already stated, the proposed M7 Naas to Newbridge Bypass Upgrade Scheme is primarily a widening of the motorway within the existing wide median. The required excavation and disposal of material is therefore not significant.
- 4.13 The principal types of material to be disposed of are aggregate, blacktop, concrete and soil. It is not expected that any of this material will be contaminated. It is considered that the majority of waste soils, rock and concrete will be used within the project area where possible for infilling or landscaping.
- 4.14 It has therefore been concluded that the potential effects on the environment of the appropriate disposal of waste material arising from the site is not significant.

Interactions and Potential Cumulative Impacts

- 4.15 In addition to addressing the individual aspects of the environment likely to be significantly impacted by the proposed development, the Environmental Impact Statement must also address the interrelationships between them.
- 4.16 Interrelationships relate to the interactions between impacts identified under one topic with impacts identified under another topic, a simple example is the effect a proposed noise barrier may have on the visual impact assessment.

- 4.17 To ensure that the interactions were properly considered and assessed each of the individual draft environmental assessments were circulated and reviewed by each of the specialists and by the design team; and subsequently each of the specialists discussed the potential impacts and proposed mitigation measures arising from their individual assessments directly and at an EIS workshop. In this way all of the potential interactions have been addressed within each relevant EIS chapter.
- 4.18 The most significant interaction occurred between the engineering requirement to maintain safe sight lines for drivers exiting the motorway on the new J10 southbound off slip, whilst at the same time providing noise mitigation, minimising landtake and providing space to facilitate landscape planting.



- 4.19 As is demonstrated on the overhead slide, maintenance of the safe sight lines requires a wide verge which dictates the position of the noise barrier at this location. The widened verge also provides a narrow 4m strip to the rear of the noise barrier which can be planted to mitigate visual impact.
- 4.20 With respect to potential cumulative impacts throughout the compilation of the EIS we were cognisant of the proposed M7 Osberstown Interchange / R407 Sallins Bypass scheme and the potential impacts which could arise in association with this related scheme.
- 4.21 Regular project co-ordination meetings between the Design Teams on the M7 Naas to Newbridge Bypass Upgrade Scheme and the M7 Osberstown Interchange and R407 Sallins Bypass Scheme were conducted throughout the design and EIS phases (2012 and 2013) to ensure that each team was aware of the design work and environmental assessments being completed and the overlap and interactions between the two.

- 4.22 In addition, to further ensure that potential cumulative impacts were thoroughly addressed, an environmental workshop was held to specifically discuss and review cumulative impacts of the respective schemes and to ensure accurate coverage and assessment of cumulative impacts. The workshop was attended by all of the environmental specialists from both schemes. Each environmental specialist subsequently undertook the cumulative impact assessment of their relevant speciality and input to the cumulative impact assessment which forms Chapter 18 of the EIS.
- 4.23 The most significant cumulative effect in association with the M7 Osberstown Interchange / R407 Sallins Bypass Scheme is the traffic relief that the Osberstown Interchange provides to the J10 Newhall and J11 Maudlins interchanges. As Philip Shiels has explained, while beneficial, this reduction does not remove the need for the proposed reconfiguration of J10.
- 4.24 Chapter 18 concludes that, with the application of the construction and operational mitigation measures identified in the EIS, there will be no negative cumulative impacts associated with the M7 Osberstown / R407 Sallins Bypass scheme.
- 4.25 Inspector a draft schedule of commitments has already been handed in to the Oral Hearing. As the Environmental Co-ordinator I have also prepared, and handed in to the Oral Hearing, an outline Environmental Operating Plan of which the schedule of commitments forms part. This Environmental Operating Plan simply draws together various environmental procedures relevant to the construction phase.
- 4.26 I would now like to introduce Jennifer Harmon of AWN Consulting who shall review the noise impact assessment completed for the proposed scheme, discuss the proposed mitigation measures and respond to the submissions raised with regards noise impacts.