

1 Introduction

1.1 Need for the Scheme

The upgrading of the Dublin to Waterford inter-urban road link has been identified as a requirement by the National Roads Authority (NRA) in their National Road Needs Study (July 1998)¹ and now forms part of Government Policy. The new road link is set out as an objective of the Economic and Social Infrastructure Operational Programme element of the National Development Plan (2000–2006)² (NDP).

The NRA 'Assessment of Waterford–Dublin Route and Road Type Options' paper (February 2000)³ identified a 'Central N9 Corridor' as the preferred route for the inter-urban road link. Route corridor options located further to the east (N11/N30/N25) and to the west (from N8 via Durrow) were also considered by the NRA before selecting the preferred corridor.

The initial assessment by the NRA also recommended that the proposed scheme should be a dual carriageway / motorway road in its entirety meeting 'level of service' objectives so as to ensure consistency of route standard, maximise road safety benefits and secure uniform operating characteristics.

1.2 Scheme Development

A Technical Steering Committee has been set up which comprises technical officers from Carlow, Kildare, Kilkenny and Laois County Councils, from Waterford Corporation and from the NRA Regional Design Offices.

In order to expedite the planning and design of the new road, the proposed scheme has been split into two sections, being the areas to the north and south of a line along the N10 between Kilkenny and Paulstown extended to the west and east respectively. The proposed scheme is being managed by the NRA Regional Design Offices at Kildare County Council (Northern section) and Tramore House (Southern section).

Roughan & O'Donovan-Maunsell Alliance (ROD-M) and Arup Consulting Engineers (Arup) were appointed in September 2000 to develop the planning, design and environmental assessment for the northern and southern sections of the scheme respectively.

1.3 Initial Study Area

The initial study area identified by ROD-M and Arup for the proposed N9 scheme is indicated on Figure 1. This area is based on the preferred 'Central N9 Corridor', recommended by the NRA, and covers approximately 2,400 square kilometres crossing through Counties Kildare, Laois, Carlow, Wicklow and Kilkenny. The initial study area was presented to the Steering Group and agreed in December 2000.

The initial study area begins as an apex in the north at the interchange of the M7 and M9, with the M7/N7 forming the northern border of the area. The western border passes south from just east of Monasterevin, across the River Barrow and Royal Canal, and west of Athy to the N80 at Loughlass. From Loughlass the western border passes southwest, to the west of Castlecomer and Kilkenny City. It continues south-southeast to the west of Kells, Mullinvatt and Kilmacow to the N24 near Aglish, just north of the River Suir.

The eastern border of the study area goes south from the M7/M9 interchange, over the River Liffey, near Kilcullen, and to the west of Dunlavin and east of Grange Con. It passes through the Knockarigg Hill and Thorahill high ground before passing southwest to the east of Carlow, over the River Burren and to the east of Muinebheag and Paulstown. It continues southwest to the east of Goresbridge and crosses the River Barrow, forming a loop to the west of Brandon Hill and associated high ground. It then passes southeast, roughly following the eastern bank of the River Nore from Inistioge before crossing the Nore east of its confluence with the River Barrow. The eastern border then goes south, west of New Ross, and roughly follows the western bank of the River Barrow to its confluence with the River Suir.

The southern border of the initial study area roughly follows the N24 from east of Aglish to Belmont, continuing east to the railway crossing of the N29. It then curves northward towards the eastern bank of the River Barrow.

The counties of Carlow, Kildare, Kilkenny, Laois and Wicklow are all included in the northern section of the study area. The main towns located within the northern section are Kildare, Kilcullen, Ballitore, Athy and Castledermot in County Kildare; Grange Con in County Wicklow; Ballylynan in County Laois; Carlow, Muinebheag (formally Bagenalstown) and Leighlinbridge in County Carlow; and Kilkenny City, Clogh and Castelcomer in County Kilkenny.

The main county contained in the southern study area is Kilkenny County, with a small portion of Carlow County in the northeastern corner. The major towns located within the southern section in Kilkenny County are Gowran, Goresbridge, Bennetsbridge, Kells, Stoneyford, Thomastown, Knocktopher, Inistioge, Ballyhale, Mullinavat, Glenmore, Kilmacow and Slieveroe. No major towns are located in the Carlow County portion of the study area.

The northern section is predominantly rural in character and broadly consists of the fertile Barrow Valley in the north and east, and the Castlecomer Plateau in the southwest.

The general topography of the southern section broadly consists of undulating hills in the north and a river/valley system in the south. The South Kilkenny Hills are a dominant feature in the central-southern portion of the study area, and are the source for several of the tributaries of the Rivers Nore and Suir.

The river, floodplain and valley systems of the Rivers Nore and Barrow are a significant feature of the study area. The River Barrow flows in a southeasterly direction through the northern section of the study area, effectively cutting it in half. The River Nore flows south from Kilkenny through the southern section of the study area to Thomastown before heading southeast to meet the River Barrow just east of the study area.

Agriculture is the dominant land use in the study area with all of the lands, except for urban areas and roads, broadly classified as agricultural land. Soils are generally highly fertile and agriculture practiced intensively.

There are several national primary roads and national primary/secondary roads traversing the study area. The Dublin to Waterford railway traverses the study area diagonally from north to south connecting Athy, Carlow, Muinebheag, Kilkenny and Waterford.

1.4 Constraints Study Objectives

The planning and development of the N9 road is being carried out in accordance with the NRA National Roads Project Management Guidelines⁴. These guidelines provide for a phased approach to the development of major road schemes. The main phases defined in the guidelines are as follows:

- Project Management
- Constraints
- Route Selection
- Preliminary Design / Land Acquisition Procedures
- Construction Documents Preparation (including Detailed Design) / Tender Award

The planning for the scheme up to the completion of the Route Selection phase is being carried out jointly by ROD-M and Arup for the Northern and Southern Sections respectively.

This Constraints Study has been carried out at an early stage of the project with the objective of gathering as much information regarding the project as possible. This data collection is focused on determining the constraints including physical, environmental and engineering constraints that exist and could affect the location, design and progress of the scheme.

1.5 Report Format and Contents

The Constraints Study Report has been split into two volumes covering the northern and southern study areas respectively. Each volume has common sections giving a general introduction, the background to the scheme, the first public consultation and the initial review of the study area. Thereafter the report generally concentrates on either the northern or southern study area with individual chapters covering individual topics.

Specialist Socio-economic and Environmental studies were undertaken by the following, with their significant input to this report being gratefully acknowledged:

Socio-economic	Brady Shipman Martin
Flora, Fauna and Fisheries	Natura Environmental Consultants Ltd.
Cultural Heritage / Archaeology	Valerie J. Keeley Ltd.
Land Use and Agriculture	Philip Farrelly & Co Ltd.
Landscape and Visual	Brady Shipman Martin

Chapter 2 of this report discusses the background to the road scheme in more detail with particular reference to the NRA National Road Needs Study (July 1998)¹, and the Irish Government's National Development Plan (2000 – 2006)².

The First Public Consultation which took place in at the end of March 2001 and feedback generated from it is summarised in Chapter 3.

Chapter 4 describes the initial review of the study area undertaken and subsequent refinements made.

The constraints identified for each assessment topic are then presented in subsequent chapters as follows:

Chapter 5	Engineering and Topography
Chapter 6	Accidents
Chapter 7	Geology and Hydrogeology
Chapter 8	Socio-Economic Impact
Chapter 9	Flora, Fauna and Fisheries
Chapter 10	Archaeology and Cultural Heritage
Chapter 11	Land Use and Agriculture
Chapter 12	Landscape and Visual Aspects

1.6 References

1. National Road Authority; National Roads Needs Study; 1998.
2. Department of the Environment; National Development Plan (2000-2006); 2000.
3. National Roads Authority; Assessment of Waterford – Dublin Route and Road Type Options Paper; February 2000.
4. National Roads Authority; National Roads Project Management Guidelines; 2000.