Part II
Significant Environmental Effects and Proposed Mitigation Measures

6.0 HUMAN BEINGS

The construction phase of the scheme will require traffic management that will affect community severance to various degrees. The contractor for the scheme will prepare a Traffic Management Plan for the approval of the road authority prior to commencement of the works. The contract for the scheme will seek to minimise traffic disruption, but there will inevitably be some impact for the local community, especially for those who use the N51 Drogheda Road and the Rossnaree Road that cross the scheme.

Once operational the resident community will experience reduced travel times and safer driving conditions along the length of the proposed bypass. Removal of HGV traffic from the route over the existing bridge will greatly improve safety. Travel through Slane for local trips and through-trips on the N51 will also improve through reduced north-south demand at the traffic signals at the Square. These will be significant positive impacts.

The residents of the houses along the existing N2 that will be bypassed by the proposed scheme will enjoy considerably lower traffic flows through their area, and this will enhance their residential amenity. There will however be a potential increase in traffic levels along the N51 from the proposed N2/N51 roundabout to the crossroads in Slane Village, which would affect people living along the Drogheda Road.

The proposed N2 Slane Bypass will enhance the economic potential of Slane and communities along the N2 by providing opportunity both internally through reduced traffic disruption and through improved links to the Greater Dublin Area.

Whilst there is likely to be an initial loss of business in the short term due to the provision of a bypass, this loss should generally recover in the medium to long term. With reduced traffic and congestion local services and accessibility are likely to improve which should positively impact tourism in the area. Reduced traffic flow will also improve potential for residential development and the potential for employment will be enhanced through improved accessibility.

7.0 THE NATURAL ENVIRONMENT

7.1 Terrestrial Ecology (Flora, Fauna and Habitat)

The proposed road will cross the River Boyne and Boyne Canal, which are part of the designated area that is the River Boyne candidate Special Area of Conservation. A bridge of 200 metres length at a height of approximately 19m will be provided over the river valley, this will ensure that the impact of the proposed scheme on the ecology of the Boyne Valley will be negligible.

Elsewhere, the main ecological impact will be the removal of hedgerows, which will be mitigated by additional planting along the road. Extensive mitigation measures will be provided for badgers, otters, bats and other fauna where necessary.

7.2 Aquatic Ecology and Water Quality

The proposed N2 Slane Bypass crosses over an important salmonid river: the River Boyne, the scheme has been designed so that there is no in stream works at this location. Suitable precautions will be taken to prevent accidental contamination of watercourses with silt and pollutants during the construction and operation of the proposed N2 Slane Bypass. This will involve the provision of pollution interceptors at all outfalls from the surface water drainage system along the route. Particular care will be taken during the construction phase in proximity to the River Boyne and the canal.

7.3 Noise and Vibration

A conservative approach has been adopted to the noise assessment based on a worst-case scenario for potential long-term traffic flows in the event of an extension of the N2 dual carriageway beyond Slane towards Ashbourne and Ardee.

The noise predictions for the scheme have been provided for in two scenarios: the use of hot rolled asphalt and on the use of Low Noise Surfacing which results in up to 3.5 dB reduction in noise levels.

Noise bunds or barriers will be provided where required to reduce the traffic noise to acceptable levels in accordance with the relevant guidelines. There is one location identified immediately to the northeast of the proposed N51 roundabout where a barrier will be provided for and a second barrier proposed at the northern tie-in on the south side. With these mitigation measures in place all locations along the scheme will comply with the adopted criteria.

7.4 Air Quality

The proposed road scheme will redirect traffic away from Slane Village, to areas where fewer people are exposed to traffic emissions, which will benefit the majority of the local population without exposing people living near the new route to significant levels of emissions. By taking traffic, especially trucks away from the very steep hills, sharp bends and two sets of traffic signals in Slane, the scheme will lead to a reduction in air pollution by enabling more efficient engine performance.

The construction phase impact for air quality will be limited through application of a dust minimisation plan.

7.5 Climate

The impact of the N2 Slane Bypass on climate will be negligible in the national context. No significant micro-climatic effects are expected as a result of the scheme.

7.6 Hydrology

There may be some permanent lowering of the water table in some sections of the road scheme. In the context of regional hydrogeology and identified hydrological and hydro-geological receptors, this impact ranges from a minor negative to insignificant impact. No wells are expected to be adversely impacted by the scheme.

7.7 Soils and Geology

No County Geological Sites have been identified within the proposed scheme land take area. The development will have no environmental impact on the soils and geology of the area.

Significant cuttings through both soils and rock will be required. In carrying out these works on-site, an earthworks volume surplus of approximately 150,000 cubic metres will be generated, of which about 60,000 cubic metres is likely to be processed on site for use in road construction. Other uses on site such as landscaping and noise bunds will use some of the remainder and a modest excess volume of about 60,000 cubic metres of soil material may have to be excavated, loaded and transported for disposal in a licensed facility.

8.0 LANDSCAPE AND VISUAL IMPACTS

The receiving environment for the proposed new bypass for Slane poses major challenges and design constraints to achieve an acceptable intervention in the landscape. The town of Slane itself is a heritage town with a distinctive urban form, historic buildings and a major castle and demesne. The wider landscape is judged as being of very high value and the River Boyne valley is deemed as being of "exceptional" value. Coupled with the many historic monuments and buildings within the wider landscape and the World Heritage Sites of Newgrange and Knowth, which enjoy relatively unspoilt views over the route corridor, this is a very sensitive environment.

The proposed route alignment seeks to hide the road within cuttings and topographic adjustments in the landscape, coupled with extensive roadside planting to screen and green the corridor. However the design also seeks to minimise the scale of these cuttings and re-grading – this is both efficient design and also lessens the potential intervention and "footprint" of the road corridor. In general screen planting and woodland planting will mitigate much of the landscape and visual impact of the road corridor itself. Where there is potential for exposed rock to present a long term scar in the otherwise pastoral landscape natural colonisation of these areas will in due course cover these potentially obtrusive features. The visual impact assessment indicates where the new road would have more long term and comprehensive change in accommodating junctions and associated infrastructure.

The biggest challenge for the design, however, is accommodating a new bridge over the Boyne. Following investigation of a range of options the preferred design seeks to balance the immediate impact locally within the Boyne Valley itself, where a taller larger span bridge might appear more appropriate; against the impact on the wider landscape, where such a longer or taller structure would have more visual impact even at a distance. As a result the actual bridge profile proposed is simple and understated.

The visual impact assessment has looked at key views locally and in the wider landscape. It illustrates that most of the longer distant views whilst experiencing impacts at medium to high level of significance, the net effect at these locations is a neutral visual impact i.e. the scale and composition of the proposed bridge and the degree of change within the general wide view experienced is acceptable, and either doesn't alter the quality or value of the view or in some cases adds an interesting and logical feature to the view.

However, views closer to the proposed new bridge will experience generally adverse change. The rural, pastoral valley scene, classified as being of exceptional value, is disturbed by what will read as a large structure and its associated embankments. Mitigation of these adverse impacts will seek to "naturalise" the contours of these embankments to reflect the natural form of the valley and to introduce extensive woodland to disguise these features.

In general the road corridor itself is generally mitigated through topographical features and soft landscape. The impact on residential amenity indicates that most of the corridor impacts can be mitigated through screening and planting. However houses and locations close to junctions will experience permanent change to the landscape character as infrastructure replaces agriculture as the dominant feature locally e.g. N51 junction. Tree and woodland planting will screen and soften these impacts but the overall change will remain. However these changes are not unacceptable on the edges of an urban area.

On balance, subject to detailed design of mitigation requirements and refinement of the bridge design, the current proposals are an acceptable interpretation of the need for a bypass of Slane and will protect the wider landscape context whilst confining adverse impacts to the immediate locale of the bridge crossing and proposed junctions.

9.0 MATERIAL ASSETS IMPACTS

The alignment of the proposed scheme is through lowland, which consists of good agricultural range and usage. The main enterprises are suckler cows, drystock, dairying, tillage and mixed livestock. The impact on agriculture of the new road construction will be limited to the farms directly traversed by the development.

The proposed road will directly impact on 16 farms by either severing them or reducing the area of the farm.

The impact will be major on one farm or 6.2% of all farms. Eight farms would have a moderate degree of residual impact representing 50.0% of all farms. Four farms will receive a minor impact representing 25.0% of overall farms. Three farms will have a not significant degree of impact representing 12.5 of all farms.

There will be three currently used dwellings and one unoccupied dwelling acquired as part of the scheme. House curtilage will be acquired from a number of other properties.

10.0 ARCHITECTURAL, ARCHAEOLOGICAL AND CULTURAL HERITAGE

10.1 Archaeology and Cultural Heritage

The route is just over 500m from the UNESCO World Heritage Site of Brú na Boínne; the Site, comprising the three main prehistoric sites of the Brú na Bóinne Complex, Newgrange, Knowth and Dowth, situated on the north bank of the River

Boyne, was primarily designated as a World Heritage Site as it holds Europe's largest and most important concentration of prehistoric megalithic art. The monuments there had social, economic, religious and funerary functions (UNESCO 2009).

The assessment identified 44 archaeological and cultural heritage constraints within 500m of the route. Of these five will be impacted directly (a further three 'Areas of undetermined archeological potential' will also be impacted), two will be impacted indirectly and 34 will have no predicted impact.
For the 10 sites that will be impacts on by the proposed road the potential impact is considered potentially significant for three sites (a further two 'Areas of undetermined archaeological potential' will also be impacted but the impacts on these areas cannot be fully determined at present), moderate for two sites, slight for two of these sites and there is no predicted impact for the remaining site.

It should be noted that the N2 Slane Bypass would have a positive impact in rerouting heavy traffic from Slane Bridge and Slane Village, west of the preferred route.

10.2 Architectural Heritage

The assessment identified 21 architectural heritage sites within the study area. The proposed scheme will have a negative impact on two architectural heritage sites and features namely – a gate and a lodge. The proposed scheme will have an indirect negative impact on five architectural heritage sites and features namely - a pill box, a gate, a nineteenth/twentieth century building, Ledwidge Cottage and a culvert. The proposed scheme will have an indirect positive impact on one architectural heritage site namely Slane Village.

11.0 MITIGATION MEASURES

The principal mitigation measures proposed in the scheme are as follows:

- Pre-construction surveys will determine exact locations for mammal underpasses, relocation of badger setts, wildlife fencing, bat protection etc.
- Extensive landscape planting of the route will be undertaken to compensate for trees and hedgerows that will be removed.
- Noise bunds or barriers will be provided at 2 locations.
- Only the N2 and the N51 roads may be used to transport construction materials for the project.
- Pollution control measures will be provided to protect the River Boyne and tributaries both during the construction and operational phases.
- Appropriate traffic management measures will be taken during the construction period to ensure that any traffic disruption is kept to a minimum.

12.0 FURTHER INFORMATION

The full Environmental Impact Statement will be on display and available for inspection for not less than one month at the following locations as detailed in the published newspaper notices:

- Meath County Council, County Hall, Railway Street, Navan, Co. Meath

- Meath County Council National Roads Design Office, The Enterprise Centre, Trim Road, Navan, Co. Meath
- Meath County Council, Duleek Area Office, Duleek, Co. Meath.

Copies of the full EIS may be purchased from Meath County Council NRDO in Navan. Alternatively the EIS can be viewed on the Meath County Council website at http://www.meath.ie.

13.0 WHAT HAPPENS NEXT?

Written submissions relating to the likely environmental effects of the proposed road development may be made to An Bord Pleanála (the Board) by the public or by prescribed bodies prior to the date specified in published newspaper notices. An Oral Hearing may be held should the statutory requirements for one be met. Written submissions, together with any representations made at any oral hearing, will be considered by the Board in making its decision on whether or not to approve the scheme with or without modifications. The Bord's decision will be published in one or more newspapers circulating in the area, including where appropriate, particulars of any modifications to the scheme.

All submissions in relation to this development should be sent to the Board at the following address:

An Bord Pleanála,
64 Marborough Street,
Dublin 1.