

N11 Gorey North Service Area

Environmental Impact Statement

**Volume 1
Non-Technical Summary**

September 2008





National Roads Authority

An tÚdarás um Bóithre Náisiúnta

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Preface

The structure of the Environmental Impact Statement (EIS) for the proposed N11 Gorey North Service Area, is laid out in the preface of each volume for clarity. The document consists of the following four volumes:

Volume 1 – Non Technical Summary

A non technical summary of information contained in Volume 2

Volume 2 - Environmental Impact Statement

This volume describes the environmental impact of the proposed development including the layout, structure, access / egress points and associated auxiliary works to the proposed developments.

Volume 3 – Drawings

A dedicated volume of drawings that further describe the information set out in Volume 2

Volume 4 – Technical Appendices

Data that is supplemental to the information in Volume 2.

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1 Introduction

At present, there are no dedicated service areas for motorways or dual carriageways in Ireland. This means that long distance or inter-urban traffic must exit the motorway/dual carriageway to use rest, fuel and food facilities that may be available in neighbouring towns and villages. The National Roads Authority has developed a policy for the provision of service areas on the national road network. The proposal to provide a service area on the N11 near Gorey, Co. Wexford, forms part of this policy.

Halcrow Barry has been commissioned by the NRA to prepare a Preliminary Design and Environmental Assessment of the service area adjacent to the N11 near the town of Gorey, Co. Wexford. This Environmental Impact Statement (EIS) summarises the environmental impacts of the proposed service area. The EIS comprises of four Volumes, of which this non-technical summary forms Volume 1.

1.1

Consultation

In 2005, the NRA undertook a policy review of service areas. The review included consultation with the public, Local Authorities and Government Departments. Consideration was duly given to received submissions in finalising the NRA Policy on provision of service areas.

Statutory and non-statutory organisations were consulted in June 2008 seeking comments on the proposed N11 Gorey North Service Area. Consultation with the various parties took the form of one or all of the following:

- Letter and indicative mapping of site location;
- Letter and indicative mapping of site location and indicative site layout.
- Consultative meetings.

Public consultations in the form of a mail shot was undertaken in September 2008. The mailshot was distributed to affected landowners and local residents within the vicinity of the proposed service area and included:

- Brochure –Information leaflet;
- Map at A3 scale showing indicative layout of service area;

- A document summarising frequently asked questions regarding the proposed service area.

A public information day will be held in October 2008 to explain the proposed scheme and answer any questions.

2 Background to the Proposed Development

2.1

NRA Policy

In recent years, the national primary road network has undergone extensive improvements and further upgrade programmes are planned for the future. In light of these changes, the NRA has outlined a policy for the provision of service areas on major inter-urban routes, in order to cater for the needs of motorists on these longer, more isolated stretches of uninterrupted dual-carriageway and motorway. The full details of the policy, entitled '*Policy Statement on the Provision of Service Areas on Motorways and High Quality Dual Carriageways*', is available from the NRA website (www.nra.ie)

The service area proposed for the N11 is one of a network of service areas being proposed throughout the national primary road network. The distribution of these proposed service areas is shown in **Figure 2.1**.

In accordance with the NRA policy of spacing service areas at intervals of approximately 50-60km where feasible, it would be appropriate to provide one service area on the dual carriageway section of the N11 from the M50 to Clogh Roundabout south of Gorey. A preliminary evaluation of the route determined that the section of the N11 between Junction 21(Arklow South) and the Clogh Roundabout was to be the study area for the proposed service area.

2.2

Procurement Approach

It is proposed to develop the service area described in this EIS either under a Public Private Partnership form of contract or alternatively to construct the service area directly under a traditional design and build contract with the subsequent appointment of an operator through a competitive tendering process.

2.3

Function of the Proposals on a National, Regional and Local Level

The primary purpose of the proposed service area is to provide fuel and rest facilities on a 24 hour basis on the N11 national primary route in order to aid interurban and long distance travel. This will assist the road safety campaign put forward by the Road Safety Authority and contribute to reduction of driver fatigue and accidents on the national primary road network by providing rest and refreshment facilities. It will also provide facilities for Heavy Commercial Vehicles (HCV) drivers to park up and take their required resting periods.

2.4 ***Existing Conditions***

The proposed site is located in the townland of Ballyellin, near the village of Coolgreany in north County Wexford. The site encompasses an area of 16.6 ha of agricultural land, 13.5 ha to the west of the N11 and 3.1 ha to the east. The proposed site location is shown in Figure 2.3.

2.5 ***Alternatives Considered***

In selecting the proposed site for the Gorey North Service Area consideration has been given to alternative sites taking into account the engineering and environmental issues. Six potential development sites that may be compliant with site selection criteria were identified.

A ranking system, similar in nature to that outlined in the NRA Environmental Guidelines, was developed to compare specific site characteristics. The ranking system was used to determine which of the potential sites best met the Technical and Environmental criteria.

All the sites identified have advantages and disadvantages and following a review of both the engineering and environmental factors affecting site selection, it was concluded that the preferred site location for the Gorey North Service Area was Ballyellin West (Site 1A), with the site performing better than all other sites from an overall technical and environmental point of view. The site meets the spacing requirement between service areas and has sufficient land available and unrestricted frontage on the N11 to accommodate a grade separated junction. As with all the other sites assessed, mitigation may be required to deal with potential noise and visual impacts.

Other sites were considered less preferable due to a number of factors including issues with groundwater vulnerability, available site size, water supply and waste water removal.

3 Description of the Proposed Development

3.1 *Introduction*

The proposed service area will provide facilities for N11 road users who wish to take a rest during their journeys and/or use fuel, toilet or food facilities.

The service area facilities will be provided on the western side of the N11 dual carriageway. Public access to the service area will be restricted to direct access from the N11. Access to and from the southbound carriageway will be via an overbridge. Restricted access from the local road network to the site will be provided for employees and emergency vehicles only.

3.2 *Site Layout Principles*

The indicative site layout is presented in **Figure 3.3**. The main elements of the service area include:

- Internal roadways and access slip lanes to and from the service area;
- Parking for Passenger Vehicles, HCVs and Coaches and motorcycles;
- Amenity building and ancillary facilities;
- Fuel Station and associated facilities;
- Storm and Foul Drainage;
- Water Supply;
- Garda Enforcement Area;
- Lighting;
- Picnic Areas; and
- General Earthworks/landscaping.

3.3 *Roads and Parking*

A major consideration in developing the internal layout was to keep HCVs separate from passenger cars as much as possible, and minimise the interaction between HCVs and pedestrians. Cars and other light passenger vehicles will have priority at internal junctions within the service area.

HCV parking has been placed at the furthest distance feasible from sensitive receptors. Car parking areas are located beyond the fuel stations, giving drivers the opportunity to fuel up before driving to the parking area to use facilities. Passengers also have the option to go directly to the parking area if they do not require fuel.

Pedestrian routes are clearly defined, with dedicated crossing points across the internal road network.

3.4***Service Area Building***

The building will be fully accessible, following guidance given in “*Building for Everyone*”, published by the National Disability Authority. The building will also incorporate principles of sustainable design and energy efficiency into its design and should achieve an A or B label under the Energy Performance of Buildings Directive. The facilities that will be provided in the main building structure will include:

- Convenience Shop;
- Restaurant Facilities;
- Toilet Block;
- Baby Changing Facilities;
- Showers;
- Information Kiosk;
- Children’s Play Area;
- Telephone Kiosk; and
- Additional back office facilities are required to service these amenities.

3.5***Fuel Station Facilities.***

The fuel station has been designed to accommodate separate fuelling facilities for both Heavy Commercial Vehicles and cars. Both fuel stations will allow for one-way traffic flow only with sufficient room to allow free flow of traffic during peak hours.

The fuel storage tanks will be fitted with a leak detection system, which will measure any leak between the inner and outer shell. A visual and audible alarm will activate if any leak is detected.

A separate area for fuel delivery will be provided for each fuel station facility to minimise operational interference and enhance site safety.

3.6***Utilities***

Electricity supply for the site will be provided by the Electricity Supply Board (ESB). Telecommunications will be provided from the existing telecommunications network located within the adjacent road.

The daily potable water requirement will be supplied from an existing watermain in the Ballyellin Road which borders the site to the north.

3.7 ***Surface Water Drainage***

The drainage design follows the principles of Sustainable Drainage Systems (SuDS), which will limit the surface water runoff from the development to the existing rate of the greenfield site for a 1 in 100 year return period. The drainage design will provide a series of treatment systems, which combine to ensure that surface water runoff entering the receiving watercourse is of a high level in water quality.

3.8 ***Foul Drainage***

There is no existing foul sewer network immediately adjacent to the Gorey North Service Area site, however a new Waste Water Treatment Plant (WWTP) is currently under construction to service nearby Coolgreany Village and the surrounding area. This new treatment plant to be completed in 2009 will provide sufficient capacity to accommodate foul water from the proposed service area when completed in 2009. On site pre-treatment of the service area effluent will be required prior to pumping to the Coolgreany WWTP.

3.9 ***Landscaping and Fencing***

A detailed Landscape plan will be developed at the detailed design stage for the site. There will be a security fence around the perimeter of the site that is a minimum of 2m in height, to prevent trespass to and from adjacent land. The service area will be screened from the N11 by shaped and landscaped bunds. The site will be landscaped both on the boundary and internally in such a way as to minimise the visual impact of the service area.

3.10 ***Lighting***

Road and area lighting will be provided on the N11, slip roads, roundabouts, along the full length of the internal road network within the service area, on the fuel filling areas, on the Garda security area, on the picnic / recreational area, and in the vicinity of the service buildings, in order to ensure that vehicle routes and directions are clearly visible by day and night. Lighting will also be provided in all parking areas, in order to create a secure environment for pedestrians and parked vehicles.

The level of lighting specified will be designed to minimise light pollution at sensitive receptors.

4 Construction Activities

Construction works are currently planned to commence in 2009 and are anticipated to last on a continuous basis for approximately 12 to 18 months, although the exact programme will be determined by the Contractor. Similarly, resource levels and construction traffic volumes will be dependant on the requirements of the Contractor.

Suitable traffic management arrangements will be implemented for the duration of the construction works to permit the safe use of a temporary access from the N11 dual carriageway and to separate construction traffic from the general public.

Haulage of plant and materials to and from the construction site will be made from the N11 dual carriageway as construction traffic will not generally be permitted to use the L-1003-01 Ballyellin Road. Construction traffic may be permitted to use the L-1003-01 Ballyellin Road in exceptional circumstances, subject to prior approval of the Local Authority.

5 Environmental Impact of the Project

5.1 *Human Beings*

5.1.1 *Socio Economic & Community Effects*

The socio-economic and community effects assessment evaluated the significant impacts of the proposed service area on the social and economic functioning of the community, the population in the general vicinity of the proposed development and users of the N11.

The primary purpose of the proposed service area is to serve national road users and so it is not envisaged that there will be a significant effect on the local economy.

5.1.2 *Planning*

The potential significant impacts of the proposed service area were considered at National, Regional and Local level.

The National Development Plan, The National Spatial Strategy, The Regional Planning Guidelines for the South East Region and the Wexford County Development Plan were all considered.

The operational impact of the proposed service area in the Strategic and Local Planning context is considered to be positive, long term and moderate.

5.1.3 *Traffic*

A traffic impact assessment was carried out to assess the impact of the proposed development on the surrounding road network and to address the traffic and highway considerations of the proposal.

As a facility designed to cater for road users already on the network, the service area is not anticipated to generate significant numbers of new trips on the surrounding road network, these being limited to staff and emergency vehicles only.

Driver fatigue was estimated to be a factor in 20% of all fatal accidents by the Road Safety Authority, as outlined in 'Road Safety Strategy 2007-2012'. It is therefore anticipated that providing the opportunity for drivers to rest in a safe and protected environment away from the mainline carriageway will have a positive road safety benefit.

5.1.4*Air Quality Assessment*

The assessment focused on determining the resulting change in emissions of lead, hydrocarbons, nitrogen oxides and carbon dioxide. Two receptor locations representing the worst case scenario in the vicinity of the proposed service area were modelled at the worst case traffic speed. The pollutant levels were calculated to be below the relevant limit values with the proposed service area in place and operational.

The impact of the proposed petrol station emissions on the nearest properties was assessed and was found to be insignificant due to the fact that the properties are more than 10m away from the petrol pumps.

The impact of the proposed service area on emissions of carbon dioxide was assessed using the DMRB screening model. The results show that the impact of the proposed service area on greenhouse gas emissions will have an increase of 0.0002% of Ireland's Kyoto target in 2010 and 2025. Therefore the impact of the proposed service area on national greenhouse gas emissions will be insignificant in terms of Ireland's obligations under the Kyoto Protocol (FCCC1997.1999)

5.1.5*Noise and Vibration*

Noise and vibration impacts during the construction phase will predominately emanate from earthworks and the erection of structures and will be short term in nature. The primary sources of noise in the operational phase of the proposed service area include building services noise, car parking, filling station activities, traffic movement within the proposed site and refrigerated vehicles parked on the proposed site.

The closest noise sensitive receptors are the existing residential dwellings at Ballyellin Upper. Proprietary noise and vibration control measures will be employed to ensure that the noise emissions from building services plant do not exceed the 50Db LAeq,1hr daytime and 40Db LAeq,5min night-time at 1m from the façade of the nearest neighbouring residential dwelling.

The selection of low noise pumps, plant and the siting of noisy plant as far away from sensitive receptors, as permitted by site constraints, will ensure that the resultant noise impact associated with the petrol filling station is insignificant.

5.1.6*Landscape and Visual*

There are no existing Special Landscape Areas, Tree Preservation Orders or long distance walking routes within the locality.

The proposed development impacts on seven residential properties therefore Specific Landscape Measures have been provided in the Mitigation of Landscape and Visual Impacts section of the EIS.

When considered in conjunction with the existing N11 the service area will introduce some degree of residual landscape and visual impact to the immediate locality primarily due to illumination.

5.2

Natural Environment

5.2.1

Terrestrial Ecology

The principal impact on terrestrial ecology from the construction of the proposed Gorey North Service Area will be the loss of habitat. The loss of habitat will be confined to improved agricultural grassland which is of low ecological value and as such the loss will be insignificant. Hedgerows which have some ecological value as feeding and breeding territories for common birds and mammals will also be lost. However due to the proximity of other suitable territories it is likely that the affected species will disperse and establish new territories in the surrounding area.

Mitigation measures will ensure that where possible the amount of habitat created will be equivalent to the amount of habitat lost

5.2.2

Water

As stated earlier the proposed drainage design will follow the principles of SuDS.

To reduce the potential impacts on the water quality of the receiving water, pollution control in the form of constructed wetlands and full retention light liquids separators will be incorporated into the drainage design. As a result, it is anticipated that there will be no deterioration in water quality downstream of any outfall.

To reduce the potential impacts of flooding of the receiving water, flow attenuation will be provided..

No residual impacts on the existing surface water drainage are anticipated; however the drainage design proposed will require maintenance at regular intervals during the life time of the service area facility.

5.2.3

Soils, Geology & Hydrogeology

The water supply needs of the service area will be provided by a connection to the public mains. An on-site wastewater treatment system will be constructed to treat the wastewater generated and the treated effluent will be discharged to a public wastewater sewer.

A surface water drainage system will be installed which will comply with SuDS guidelines and recommendations. Typically, impacts on groundwater quality from construction activities are limited to slow leakage of stored liquids and minor spills during refuelling rather than major spills.

During construction, the requirement to bring plant to and from the site and for the delivery and removal of materials will lead to the construction of temporary access roads. These access roads may lead to the densification of the soil immediately underlying them. This will be mitigated by removing and storing the topsoil in advance, by scarifying the soil, replacing the topsoil, and seeding on completion. Topsoil shall be removed and appropriately stored for re use on the proposed site.

The need to minimise the exportation of material has been taken into account in the design of the proposed works. The majority of the excess material shall be used in the formation of earthworks bunds. Inevitably there will be some material that is unsuitable and this will be sent for recovery under current regulations, for agricultural benefit, ecological benefit or for development land. The remainder will be removed to an appropriately licensed receptor in accordance with relevant legislation. Where soft material is present, it will be excavated and replaced with fill or suitable capping material. Some of the material, particularly the stiff grey (organic) CLAY/SILT, can be used in the construction of landscape bunds.

No significant residual impacts on the geology and hydrogeology of the proposed site are anticipated.

5.2.4

Material Assets

The proposed service area will have a minor negative effect on natural resources. During the construction phase of the proposed service area impacts will be temporary and will be addressed by the implementation of a Construction Management Plan and the Environmental Operating Plan.

Soil and rock excavated on the proposed site will, as far as possible be re-used on site. Inevitably there will be some material that is unsuitable and this will be sent for recovery under current regulations, for agricultural benefit, ecological benefit or for

development land. The remainder will be removed to an appropriately licensed receptor in accordance with relevant legislation.

5.2.5

Agricultural Properties.

An agricultural assessment of the proposed site was carried out during May 2008. The proposed development will directly impact on two farms. The total area to be removed from agricultural production is approximately 16.6 Ha. Of these, one of the affected farms has an equestrian business as the primary farm enterprise. The other affected farm is leased on an annual basis and used for silage and grazing mixed livestock.

The overall impact on the two farms assessed would be described as moderate.

Severance will not affect any of the farms. No farmyard facilities will be affected by the proposed development.

The main impacts on agricultural activity during the construction phase of the proposed development will be: noise, dust and disturbance of drainage works. In all cases mitigation measures are possible, which will reduce any impacts. Following recommended mitigation works the residual impact of the proposed development will be moderate for both farms .

The impacts of this scheme upon agriculture, while significant to individual farmers, are not significant on a county or national level.

5.2.6

Archaeological, Architectural and Cultural Heritage

Consultation with the Archaeology Section of the National Roads Authority and the design team took place throughout the duration of the environmental impact assessment. A consultation meeting with both the NRA Archaeology Section and the National Monuments Section of the Department of Environment, Heritage and Local Government took place on July 2nd 2008.

Archaeological Heritage

Three specific sites of archaeological potential (ID A1, ID A2 & 1D A3) and four areas of archaeological potential (ID G1-1D G4) identified during field inspection and geophysical survey will be directly impacted by the proposed service area. Given the presence of these potential archaeological sites and areas, it is recommended that the proposed service area be subjected to blanket test excavation with a focus on the sites

and areas of archaeological potential identified during field inspection and geophysical survey.

All archaeological works shall be carried out with reference to the NRA guidelines under licence from the National Monuments Section and the National Museum of Ireland or subject to Ministerial directions. The exact strategy to be employed will be agreed with the NRA Archaeologist and the National Monuments Section of the Department of Environment, Heritage and Local Government. It is anticipated that all archaeological resolution will be completed pre construction. The approach adopted will be in accordance with the Code of Practice between the NRA and the Minister for Environment, Heritage and Local Government (formerly Arts, Heritage, Gaeltacht and Islands), 2000.

Architectural Heritage

No structures or properties are located within the proposed service area site and none will be directly impacted by the proposed service area. Buildings indirectly or visually impacted owing to their proximity to the proposed service area are dealt with in the Landscape and Visual Impact chapter.

Cultural Heritage

Two sections of the townland boundary between Ballyellin and Ballyelin Lower will be directly impacted by proposed drainage measures which are part of the proposed service area. A section of this townland boundary should be recorded by a suitably qualified archaeologist prior to the possible removal of part of the boundary

5.3

Interactions

In addition to the assessment of impacts outlined in the previous sections, the project team, together with specialist environmental consultants, worked together to ensure that consideration was given to areas where two or more different environmental topics can occur. Where a potential exists for an interaction, the relevant specialists have taken the potential interaction into account in their assessment, outlining where possible any proposed mitigation measures that are required.

6 What happens next?

6.1.1 *Inspecting and Purchasing the EIS*

The Environmental Impact Statement will be available for examination at locations specified in the published newspaper notices. Copies of the EIS may be purchased as hardcopy or on CD.

6.1.2 *Next Steps*

Construction of the scheme is dependent on approval from An Bord Pleanála. The EIS will be submitted to An Bord Pleanála, who can grant, grant subject to conditions, or refuse permission for the go-ahead of the project. Written submissions relating to the environmental effects of the proposed development may be made to An Bord Pleanála within the time frames listed in the published newspaper notices.

An Bord Pleanála, at its discretion, may conduct an oral hearing.

Written submissions, along with any representations made during an oral hearing will be considered by An Bord Pleanála before it makes any decision. The decision of An Bord Pleanála will be published in one or more newspapers which circulates in the area. It will include, where appropriate, particulars of any modifications to the scheme.