

12. Traffic & Transport

12.1 Introduction

This section refers to the movement of vehicles and the transportation of construction materials that will be caused as a result of the construction and operation of the proposed development.

A high level overview of the baseline conditions is included, together with the proposed methodology and a scope of the work likely to be required to undertake a detailed assessment of the impact of the proposed development on traffic and transport as part of the EIS.

12.1.1 Policy & Plan Context

The examination of policy and plan context in terms of traffic and transport will involve a combination of local and national policy documents. The following documents will be referred to:

- Relevant County Development Plans;
- Relevant Local Area Plans;
- TII (NRA) Design Manual for Roads & Bridges;
- TII (NRA) Traffic & Transportation Assessment Guidelines;
- TII (NRA) Policy Statement on Development Management and access to National Roads;
- Department of Transport Tourism and Sport – Traffic Signs Manual Chapter 8;
- Department of Transport Tourism and Sport Guidance for the Control and Management of Traffic at Road Works; and
- Any other documentation advised of by the Local Authorities, such as proposed scheme improvement works, planning documentation, mobility plans etc.

12.1.2 Study Area

This proposed development covers an extensive study area that extends from Parteen Basin on the River Shannon, directly south of Lough Derg in County Tipperary, through Tipperary and the midland counties of Offaly and Kildare, and terminating in the vicinity of Peamount Reservoir and environs in South County Dublin. The extent of the proposed development, particularly the c.170km treated water pipeline component, requires crossing a significant section of the country. In covering such a distance, it is inevitable that the pipeline will be located in close proximity to a range of receptor types, including residential and commercial developments, local amenities and services, as well as private and public transport networks. Where possible and appropriate, the pipeline will be routed away from these sensitive areas and ensure to minimise disruption and mitigate any residual impacts as a result of the project.

12.2 Baseline Information

12.2.1 Desktop Study

As part of the Preliminary Options Appraisal Report (POAR), a desktop study of the traffic and transport impacts of the proposed development was undertaken. The desktop study reviewed OSi mapping and OSi aerial photography, as well as other data sources such as road collision data from the Road Safety Authority (RSA) and online mapping services such as Google Maps, including Google Streetview.

As part of the Final Options Appraisal Report (FOAR), desktop studies similar to those undertaken for the Preliminary Options Appraisal Report were carried out. In addition, site visits to the proposed Raw Water Abstraction, Water Treatment Plant, Break Pressure Tank and Termination Point Reservoir sites were undertaken to confirm the findings of the desktop studies and to identify additional constraints.

12.2.2 Future Survey Needs

Supplementary data collection will be required to be undertaken/acquired to give a complete overview of the nature of existing traffic using the road network to facilitate access to the proposed development sites. This data will be used to assess the appropriate nature of the proposed construction access points and to assess the scheme impacts as part of the EIS for the scheme.

This supplementary data is expected to include:

- Surveys at junctions on the existing road network where operation is currently close to or above capacity;
- Windshield surveys of existing road or rail lines for consideration in relation to the proposed construction methodology and impacts on existing infrastructure;
- Identification of third party approval processes, such as Irish Rail's *Third Party Works* Procedures;
- Manual classified traffic turning counts and/or automatic traffic counts will be undertaken. Surveyed vehicles will be classified into standard categories as set out below;
 - Pedal Cycle;
 - Motor Cycle;
 - Passenger Car;
 - Light Goods Vehicle (LGV);
 - Medium Goods Vehicle (MGV);
 - Heavy Goods Vehicles (HGV); and
 - Buses & Coaches.
- Assessment of Transport Infrastructures online Automatic Traffic Counter data;
- Using knowledge and experience, traffic forecasting, for both the construction and operation phases of the development, will be undertaken. Forecasts will capture volumes of traffic for the construction of the works (materials, plant and personnel) and the operation of the development (maintenance and inspection, for the entire development (construction phase) and at the selected aboveground infrastructure sites (operational phase). These expected volumes will be converted to vehicle numbers at various construction access points and used to estimate daily trip rates for the proposed development.
- In consultation with each appropriate Local Authority, Traffic and Transportation Assessments will be undertaken utilising the TII (NRA) Traffic and Transportation Assessment Guidelines (May 2014). Such assessments will be undertaken to determine the impacts the proposed development generated traffic may have on existing junctions and on the existing road network.
- The full extent and scope of any required traffic and transport surveys will be confirmed following the determination of the site locations and pipeline route as part of the FOAR.
- Pavement Condition Surveys, where requested by the Local Authority. Such surveys will be required to be undertaken by third party sub-contractors and may include Video Pavement Condition and Roughness surveys, Visual surveys and Level 1 and 2 Falling Weight Deflectometer surveys.
- Interrogation of detailed Construction Programmes, Construction Methodology and Construction Methodology provided by the scheme designers.

- Review of all proposed access locations (Construction and Operational), haul routes and envisaged vehicle types proposed by the scheme designers.
- Independent Road Safety Audits based on the proposed scheme design and proposed access locations to determine the health and safety impacts on the surrounding road network.

Using collated information from both the desktop study and the information gathered from the surveys outlined above, proposed access points from the site(s) to the public road network will be identified and determined based on the suitability of surrounding roads. When selecting the location of these proposed access sites, the physical characteristics of the receiving road, such as carriageway width, horizontal and vertical alignment and visibility, will be considered, along with the frequency of road collisions in the area. The location of residential developments and other sensitive amenities, along the receiving road, will also be included in this process.

An Outline Traffic Management Plan (OTMP) will form part of the Construction Environmental Management Plan (CEMP) and will be based on available data. This will form the baseline requirements for the Contractor when developing the detailed Construction Stage Traffic Management Plan (CSTMP) for the proposed development.

12.2.3 Consultation

Consultation on the traffic and transport impacts will be undertaken with the following organisations:

- The Local Authorities where infrastructure for the abstraction, water treatment plant, break pressure tank, termination point reservoir and pipeline route would be situated.
- Transport Infrastructure Ireland;
- An Garda Síochána and other emergency services;
- Irish Rail;
- Bus Companies, including school bus services;
- Refuse collection services; and
- Schools.

12.3 Potential Impacts

12.3.1 Potential Construction Phase Impacts

- An increase in noise, and potentially dust, generated from construction related traffic may cause disruption to people, groups or other activities, especially to any commercial and leisure/recreational receptors located close to the proposed development.
- An increase in road traffic levels due to construction related activities supplying and accessing the site using the existing road network.
- Temporary road closures, resulting in increased travel distance and delay to existing road users may be required to facilitate crossings of the road network during the construction stage of the project.
- Road damage from HGV's during construction.

12.3.2 Potential Operational Phase Impacts

- Increase in traffic levels due to traffic accessing the water treatment plant and reservoir site locations and/or maintenance traffic accessing locations including the break pressure tank, pipeline and abstraction point. However, low levels of traffic are expected to be generated during the operational phase.
- Following construction, all temporary construction-related accesses will be closed off.

- A number of accesses will be maintained in order to be utilised as a point of access along the pipeline route corridor for maintenance and inspection purposes.

12.4 Proposed Methodology & Assessment Scope

It is proposed that an assessment of traffic and transport will be carried out in accordance with the EPA's current EIS guidance documents and the following guidance and established best practice, and will be tailored accordingly based on professional judgement and local circumstance:

- TII (NRA) Traffic and Transportation Assessment Guidelines.

In line with the above guidance, the assessment will cover potential impacts on traffic and transport and will describe the existing conditions and the likely potential impacts associated with the construction and operation of the proposed development. The impact assessment process will involve:

- Assigning the receptor sensitivity;
- Identifying and characterising the magnitude and significance of any potential impacts;
- Incorporating measures to avoid and mitigate (reduce) these impacts; and
- Assessing the significance of any residual effects after mitigation.

In particular, the traffic and transport section of the EIS will evaluate the impact of the proposed development on all road users including general traffic, HGVs, cyclists and pedestrians. It is proposed that this will be undertaken by way of the aforementioned surveys and assessments and with stakeholder liaison. The overall impact assessment on the transport network will specifically consider the following:

- An assessment of future road and public transport proposals along the development route;
- Consultation with all relevant stakeholders;
- The local and strategic traffic impacts of the proposed development;
- Potential impacts such as temporary road closures and delay on all road users;
- Changes to access and servicing of properties;
- Appropriate traffic management measures; Proposed material haulage routes and temporary access locations;
- Proposed waste disposal sites and haul routes from the construction works to these sites;
- Effects on and proposed measures for dealing with pavement damage and pre and post construction road condition surveys;
- Amenity for pedestrians and others;
- Collisions and road safety; and
- Parking and loading, particularly around construction site compounds.

The development of an OTMP will also inform the Traffic and Transport Assessment for the EIS.

The Traffic and Transport chapter of the EIS will detail the required mitigation measures during the construction and operational phases. Compliance with these requirements will be one of the specifications required to ensure that residual effects on sensitive receptors are minimised.