15. Waste

15.1 Introduction

This section refers to unusable or unwanted materials that may arise during the active construction of infrastructure and operation of the proposed development.

15.1.1 Policy & Plan Context

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

- The EU Waste Framework Directive (2008/98/EC);
- Waste Management Act 1996 as amended;
- Eastern-Midlands Region Waste Management Plan 2015-2021;
- National Hazardous Waste Management Plan 2014-2020;
- Relevant County Development Plans; and
- Relevant Local Area Plans.

15.1.2 Study Area

This proposed project covers an extensive study area that extends from Parteen Basin on the River Shannon, directly south of Lough Derg in County Tipperary, through 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 project, particularly the c.170km treated water pipeline component, requires crossing a significant section of the country.

15.2 Potential Impacts

In accordance with the waste hierarchy principle and best practice, the proposed development will operate in accordance with the requirement of preventing the generation of waste where possible. Measures to be implemented across the site to achieve these aims will include, but are not limited to, the following:

- Re-use of excavated materials on site where possible;
- Ordering of appropriate quantities of materials using the “just in time” philosophy;
- Appropriate storage facilities for materials will be identified and provided on site;
- Appropriate handling procedures for materials will be developed to prevent damage; and
- Co-ordination between contractors in the supply of materials and services to avoid repeated and/or redundant deliveries or excavations.

Debris and waste from the site could be a source of nuisance to neighbouring communities, it is also a negative impact on the appearance of the site. Measures that will be taken to ensure the site and surroundings are maintained to a high standard of cleanliness, include but are not limited to the following;

- A regular program of site tidying will be established to ensure a safe and orderly site;
- Debris netting to be erected to prevent materials and equipment being scattered by the wind;
- Food waste will be strictly controlled on all parts of the site; and

- In the event of any litter or debris escaping the site, it will be collected immediately and removed to storage on site, and subsequently disposed of in the normal manner.

15.2.1 Potential Construction Phase Impacts

Potential impacts during construction may include:

- Production of additional waste material, arising from excavating unsuitable material, vegetation, and contaminated soils;
- Excavation of possible contaminated lands, which would require disposal off site at a suitably licensed facility;
- Waste generation from construction may cause a number of direct and indirect impacts on other environmental topics such as air quality (dust, odours), traffic, noise, soils (contaminated land), geology, water, health, etc.; and
- Surplus materials and waste may occur where material supply exceeds material demand.

15.2.2 Potential Operational Phase Impacts

It is envisaged that, once the proposed development is operational, the only waste expected to be developed will be waste sludges from the water treatment process. This waste type will be reoccurring and managed under an appropriate Waste Management Plan. Thermal drying of sludges at the treatment plant prior to disposal at an appropriate licensed waste facility, will minimise the volumes of waste arising.

15.3 Proposed Methodology & Assessment Scope

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

- Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Waste Projects (2006).

In line with the above guidance, the assessment will cover potential impacts of waste generation 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.

Waste streams arising from the construction and operational phases of the proposed development will be identified in addition to identifying required waste management measures for each waste stream.

Significant volumes of excavated material will be generated during the construction phase of the main infrastructure sites. The volumes of excavated material and construction waste material will be calculated and the potential and options for re-use of the material will be assessed, with a view to maximising re-use on site. In the event that material is not suitable for reuse, recommendations for disposal will be provided. The permitting and licensing requirements under the Waste Management Acts 1996 – 2011 will be considered and adhered to.

An appropriate Waste Management Plan will be developed and will assist in the development of waste management policies and procedures for the overall development. This will include details on the management of staff (canteen waste), waste materials generated by the proposed development, packaging waste, off cuts

etc. The plan will describe methods for the storage, segregation and reuse/recovery of waste materials where possible.