14 MATERIAL ASSETS

14.1 Introduction

This chapter of the EIAR examines the material assets of human and natural origin within the vicinity of the site which could be impacted as a result of the proposed development. A detailed description of the proposal is outlined in **Chapter 5**.

Material Assets are defined within the EPA as 'Resources that are valued and that are intrinsic to specific places are called 'material assets'. They may be of either human or natural origin. The assessment shall be concerned primarily with ensuring equitable and sustainable use of resources'.

The main objectives of this assessment were to:

- Establish the existing material assets of human and natural origin;
- Assess potential changes to material assets as a result of the proposed operations; and
- To recommend mitigation measures, where appropriate, in relation to the proposed development/operations.

Scoping of the proposal identified the following issues for consideration in this EIAR:

- Indirect impacts on commercial enterprises located in proximity to the site;
- Indirect impacts on settlements and housing in proximity to the site;
- Indirect impacts on surrounding agriculture and land use;
- Impacts on transport infrastructure in the local area; and
- Changes to utility infrastructure in the local area.

There are a number of chapters within this EIAR that are relevant to material assets including Chapter 6 Population, which discusses social, amenity and tourism assets, and Chapter 13 Traffic and Transportation which provides a detailed assessment of the potential impacts that the proposed development may have on the transport network. Chapter 15 Cultural Heritage provides a detailed assessment that covers physical cultural assets including archaeology and architecture effects from proposal. Other relevant chapters include Chapter 7 Human Health, Chapter 9 Soils, Geology and Hydrogeology, Chapter 10 Water and Chapter 11 Air Quality and Climate. This chapter only addresses material assets items and issues not already covered in the aforementioned chapters.

14.2 Methodology

14.2.1 Assessment Approach

The scope of the evaluation of material assets is based on a desk-top review of online and published resources, guidance documents, legislation, information contained within this EIAR, information provided by the applicant and on a consideration of the likelihood for significant impacts arising, having regard to the nature of the receiving environment and the nature and extent of the proposed activities and development at the site.

14.2.2 Information Sources Used

As part of the desktop study to inform the assessment, the following information sources have been consulted in relation to the assessment of material assets:

- Planning data for the proposed development;
- Fingal Development Plan 2017 2023 and the draft Fingal Development Plan 2023 2029;
- OSi 50,000 Mapping;
- Aerial Photography;
- Google Earth[™] imagery;

- Existing project mapping;
- Site Visits;
- Utility Providers;
- Consultation; and
- Chapters of this EIAR.

14.2.3 Definition of Study Area

The study area for material assets has been defined with reference to the area in which there is potential for direct and indirect impact on natural and human material assets as a result of the proposed development at the site.

The assessment focused on 3km area surrounding the site, which takes into account the land and roadways west of the M1 motorway that may be impacted by associated traffic. Other notable material assets that lie beyond this 3km area, such as nearest clustered settlements have also been considered.

14.2.4 Assessment Criteria

Material assets as outlined in the EPA guidelines are physical resources in the environment which may be of either human or natural origin and make specific reference to the headings of built services, road and traffic and utilities.

The criteria used to assess the potential impacts of the proposal on material assets in the vicinity of the site are outlined in **Table 14-1**, **Table 14-2** and **Table 14-3**.

Significance of Impact	Criteria	
Imperceptible	An effect capable of measurement but without noticeable consequences.	
Not Significant	An effect that alters the character of the environment without affecting its sensitivities.	
Slight Effects	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.	
Moderate Effects	An effect that alters the character of the environment in a manner that is consistent with existing or emerging trends.	
Significant Effects	An effect, which by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.	
Very Significant Effects	An effect, which by its character, magnitude, duration or intensity significantly alters a sensitive aspect of the environment.	
Profound Effects	An effect which obliterates sensitive characteristics.	

Table 14-1 Assessment Criteria - Significance

Table 14-2 Assessment Criteria - Duration

Duration of Impact	Criteria	
Momentary Effects	Effects lasting from seconds to minutes.	
Brief Effects	Effects lasting less than a day.	
Temporary Effects	Effects lasting less than a year.	
Short-term Effects	Effects lasting one to seven years.	
Medium-term Effects	Effects lasting seven to fifteen years.	
Long-term Effects	Effects lasting fifteen to sixty years.	
Permanent Effects	Effects lasting over sixty years.	
Reversible Effects	Effects that can be undone, for example through remediation or restoration.	

Quality of Impact	Criteria	
Positive	A change which improves the quality of the environment (for example, by increasing species diversity; or the improving reproductive capacity of an ecosystem, or by removing nuisances or improving amenities).	
Negative	A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem; or damaging health or property or by causing nuisance).	
Neutral	No effects or effects that are imperceptible, within normal bounds of variation or withir the margin of forecasting error.	

Table 14-3 Assessment Criteria – Quality

14.3 Baseline Conditions

14.3.1 Land Use and Property

The local area surrounding the site features a mix of commercial, agricultural and undeveloped lands and detached one-off residential properties.

Using An Post GeoDirectory, approximately 346 residential and 72 commercial properties were identified within a 3km radius of the site. In total, there are 16 residential properties and three commercial operations (excluding agriculture) located along the LP-1080 between the site and the M1 motorway to the east of the site.

14.3.1.1 Commercial and Industrial Development

There are a small number of commercial enterprises located within the surrounding area, including TEAM Accessories Ltd, an aviation maintenance and repair business, located to the south west at the corner of the site landownership boundary. A farm and commercial premises (Ecopipe, a plumbing and heating supplier) is situated along the LP-1080 immediately opposite the southern boundary of the site.

Other commercial premises of note in the locality include dog kennels (west), a joinery business (east), a kennels and cattery (north), and a farm shop (north).

A number of recreational businesses are also located close to the site including a golf club approximately 1km south of the site and a shooting range located immediately to the west of site on the LP-1090.

The M1 Business Park is located 3km north east of the site.

14.3.1.2 Settlements and Housing

There is a low population density in the area surrounding the site. The local area is rural and consists mainly of one-off detached residential properties located along the local roads including the LP-1090 (west), LP-1080 (south), Bhailsigh Road (north), and Rowan and Nevitt Roads (east).

The nearest residential property to the site is a bungalow located at the southern site boundary along the LP-1080 to the east of the junction with the LP-1090. A vacant bungalow, which is owned by the applicant, is located at the south east corner of the site boundary.

Some of the nearest clustered settlements in the area include Naul Village located approximately 4km north west of the site and Ballyboughal Village located 4km to the south of the site. Both villages are located on the regional road R108.

14.3.1.3 Agriculture

Much of the land surrounding the site is utilised for various agricultural practices including, but not limited to, tillage and dry stock. There are also numerous farm buildings dispersed throughout the area. The fields contiguous to the site have a mixture of tillage and pasture uses, with evidence of livestock on the lands located immediately to the south of the site.

14.3.2 Utilities

Utilities and services located in proximity to the site were identified using:

- Mapping;
- Aerial photography;
- Site Visit;
- Existing available information from site operator; and
- Utility providers.

Figure 14-1 outlines the existing Water, Electricity and Gas Network infrastructure in the area.

14.3.2.1 Power and Fuel

A 38kV electricity supply is currently available on site. Electricity is provided by ESB and is used on site for heating, electronic equipment, and interior and exterior lighting.

A series of low and medium voltage parallel overhead electricity power lines run along the southern boundary of the site. These power lines will be routed underground under agreement with ESB as part of the consented development to accommodate the new site access road from the south.

Fuel is used on site in the form of marked diesel (for site plant) and road diesel (for waste transport vehicles).

No gas connection is available at the main site address and there are no underground gas pipelines located in the proximity of or traversing the site.

14.3.2.2 Telecommunications

The site office is connected to a phone line and broadband. Mobile phone networks are available at the site and local area. In addition, there is a broadband antenna on the roof of the existing blue structure to the west of the site which provides local broadband services.

Telecom lines are located to the south of the site along the south of the LP-1080 crossing at the junction with LP-1090 and travelling north along the site boundary on this road towards the existing site entrance and offices.

There are several telephone masts located close to the western site boundary. An ESB Telecoms tower (Monopole 20m) and mobile telephone tower (Vodafone) are located immediately (25m) south of the existing site entrance. A second mobile telephone tower (eir and Three) is located in a field approximately 50m west of the existing site entrance.

14.3.2.3 Water

The site is connected to the public water mains. Water is pumped onto the site for drinking water purposes in the administration building. In 2020, a total of 45m³ of water from public supply was used on site. It is expected that annual water usage will not vary significantly from this baseline. Water supply, surface water and waste water are considered further in **Chapter 10 Water**.

A water main runs along the western site boundary on the LP-1090 and partially along the southern boundary of the site on the LP-1080 near the new site entrance and the residential property located to the east of the junction with the LP-1090. A new connection will be developed from the consented administration building to the existing watermain on the LP-1080. The watermain serving the administration building will be laid in the new access road.

A Local Authority Service Reservoir is located immediately south of the existing building on the western boundary of the site on the LP-1090.

Rainwater is collected and used on site for controlling dust and mud nuisance. This water is used in the sprinkler system and water bowsers as well as the passive wheel at the existing site entrance.

Sanitary effluent water is generated from the canteen, toilet and wash facilities within the administration building. This water is serviced by a septic tank which is emptied and collected regularly by a permitted collector and brought to a receiving sewerage treatment works.

The Hydrogeological Risk Assessment for the site has identified the abstraction wells at properties in the area. These properties are also connected to water mains. Approximately 3km north east of the site there is a well field at Bog of the Ring. These water sources are considered further in **Chapter 9 Soils, Geology and Hydrogeology.**

14.3.3 Roads and Traffic

The site is located close to a good transport network including the M1 motorway, located approximately 3km east of the existing western site entrance. The site is accessible via the LP-1090 which bounds the west of the site and the LP-1080 which bounds the south of the site and links the R108 with the R132. Both the LP-1080 and the LP-1090 local roads, also known as Sallowood View and the Nevitt Road, are designated to preserve the view highlighting the sensitivity of the landscape in the area. **Chapter 13 Traffic and Transportation** provides a detailed assessment of the traffic and transportation infrastructure relevant to the proposal.

14.3.4 Air Traffic

Dublin Airport (DAA) is situated 14km to the south of the site. There is no flight path passing directly over the site. There is an existing flight path located approximately 1km to the west of the site boundary (DAA, 2016).

14.3.5 Waste Management

Waste generated on site is mixed municipal waste generated from canteen and office activities. Waste generated on site is collected by a permitted waste collector.



14.4 Impact Assessment

14.4.1 'Do-Nothing' Impact

Under the 'Do-Nothing' scenario the infilling operation would be limited to the existing inert waste operation only. The capacity to process and infill non-hazardous and other wastes in line with regional waste policy would not be realised. Alternative destinations would be required putting pressure on the current waste infrastructure in the region (refer **Chapter 2**).

14.4.2 Construction Phase

There are limited construction works associated with the proposed development with these restricted to the development of the attenuation pond and the leachate handling area. Given the short term nature of this work and the low requirement for off-site natural resources, the construction phase impact for material assets is negligible.

14.4.3 Operational Phase

14.4.3.1 Land Use and Property

The potential impacts and effects on commercial, residential and agricultural land use and property are outlined in **Table 14-4**.

Impact	Sensitive Receptor	Description of Effects	
Traffic	Commercial and Industrial Developments	There will be no changes to traffic volumes entering and exiting the site but the duration of the current impact will be elongated, therefore, there will be a long-term slight, but not significant, effect on traffic in the area. Completion of the infilling and restoration of the site will result in the	
	Settlements and Housing		
	Agriculture	cessation of traffic volumes associated with these operations. Potential impacts on traffic and transport infrastructure in the area are detailed in Chapter 13 Traffic and Transportation.	
Air Quality & Odour	Commercial and Industrial Development	Mixed Municipal Waste will not be accepted on site. As biodegradable material will not be present there will be no potential for nuisance such as	
	Settlements and Housing	leachate, landfill gas, odour or vermin at the site. There may be long-term slight effects on air in terms of dust (including	
	Agriculture	metals) generated during the proposed development; however, these effects will be intermittent and not significant given the proposed contro measures. Dust minimisation measures will be carried out on site to lim these effects and are detailed in Chapter 11 Air Quality and Climate.	
Noise	Commercial and Industrial Development	Temporary impacts to ambient noise levels during the operational phase as a result of vehicle and plant machinery use will be intermittent, slight and not significant. Potential noise impacts and management procedures are detailed in Chapter 12 Noise and Vibration .	
	Settlements and Housing		

Table 14-4 Land Use & Property Impact Assessment

The site's history as a quarry and landfill is long established and the existing operational activities at the site will remain unchanged. In the long-term, the result of the operations at the site will be positive. The former quarry will be restored to natural levels, capped and landscaped for future land use resulting in an improved material asset value for the area. This has a further benefit in terms of employment and local economy and improved visual amenity for the local community. It is not expected that there will be any significant effect on property or landholdings in the vicinity as a result of the proposed development and eventual restoration of the site.

Chapter 6 Population, Chapter 7 Human Health and Chapter 10 Water also provide a more detailed assessment of the potential impacts that the proposed development will have on the inhabitants of the surrounding area.

14.4.3.2 Power and Fuel

Operational activities on site will not result in a significant impact on the electricity network in the area.

Fuel will continue to be used on site in the form of marked diesel (for site plant) and road diesel (for mobile plant).

Power and fuel consumption will be recorded and reported to the EPA in the applicants Annual Environmental Report.

No gas connection or supply will be required on site. There are no underground gas pipelines located in proximity of or traversing the site.

14.4.3.3 Telecommunications

Operational activities on site will not result in a significant impact on the broadband, mobile and telecoms network in the area.

14.4.3.4 Water

Operational activities on site will not result in a significant impact on the local water infrastructure and supply as intensification of water use on site is not expected. There will be reuse of rainwater collected in the attenuation pond on site. Water consumption will be recorded and reported to the EPA in the Annual Environmental Report.

Sanitary effluent water will be generated from the canteen, toilet and wash facilities within the permitted administration building. All effluent will be collected in a sealed underground pipe network and discharged to a packaged treatment plant with treated effluent percolated to ground. The system will be sized to allow for additional loading. The proposed system will effectively treat effluent from a staff of 10. All of this infrastructure is permitted under F19A/0077.

Chapter 9 Soils, Geology and Hydrogeology and **Chapter 10 Water** provide a more detailed assessment of the potential impacts that the proposed development will have on water infrastructure, surface water and storm water drainage in the immediate and surrounding area.

14.4.3.5 Roads and Traffic

During the operational phase there will be no significant change to traffic volumes entering and exiting the site at peak times. There will continue to be long-term but not significant effects on traffic in the area as per the existing baseline scenario.

Completion of the infilling and restoration of the site will result in the cessation of traffic volumes associated with these operations.

Chapter 13 Traffic and Transportation provides a more detailed assessment of the potential impacts that the proposed development will have on the transport network.

14.4.3.6 Air Traffic

No impacts as a result of activities at the site are foreseen in relation to air traffic safety in the area. There is no DAA flight path located directly overhead. The site will not be accepting mixed municipal waste and so there will be no potential for avian vermin and bird strike as no biodegradable waste will be present on site.

14.4.3.7 Waste Management

Waste generated on site will be mixed municipal waste consisting of primarily office and canteen waste. Waste generated on site will be segregated and removed by a licensed waste collector(s). All waste generated will be recorded and reported to the EPA in the applicants Annual Environmental Report. There may be an increase in waste generated on site due to an increase in employees at the site.

14.5 Mitigation Measures

14.5.1 Construction Phase

No mitigation measures are considered necessary during the construction phase.

14.5.2 Operational Phase

No mitigation measures are considered necessary in respect of utilities or waste during the construction phase and diversified operation of the facility.

Dust mitigation measures will be carried out on site to minimise dust nuisance arising from onsite activities. These are outlined in **Chapter 11 Air Quality and Climate**.

Mitigation measures relating to the local road network and site related haulage is identified in **Chapter 13 Traffic and Transportation.**

Mitigation measures relating to noise management are identified in Chapter 12 Noise and Vibration.

14.6 Residual Impact

The proposed development will have a significant positive impact in terms of waste management by providing a suitably located site of substantial volume to accept waste generated primarily by the construction sector within the eastern/midlands waste region.

The use of the waste as an asset will have a significant positive long-term benefit on the restoration of the site.

There are no predicted residual ongoing impacts on material assets during the construction, operational and post-restoration phases.

14.7 Monitoring

No monitoring measures are recommended for material assets beyond the requirements for monitoring that will be established in the site's IE Licence to be issued by the EPA.

14.8 References

- 1 Fingal County Development Plan 2017 2023, Fingal County Council (2017).
- 2 Draft Fingal Development Plan 2023 2029, Fingal County Council (2022).