13 MATERIAL ASSETS – WASTE AND UTILITIES

13.1 Introduction

This chapter of the EIAR was prepared to assess the potential effects of the Proposed Development on material assets including built services and waste.

13.1.1 Quality Assurance and Competency of Experts

This chapter has been prepared by Aisling Jones, Environmental Consultant with DNV. Aisling has a Bachelor of Civil Law degree from University College Dublin and a Master of Science degree in Environmental and Climate Law also from University College Dublin. Aisling has experience preparing Environmental Impact Assessment (EIA) Screening Reports, Windfarm Feasibility Studies, Construction Environmental Management Plans (CEMP)s, Interactions, Mitigation and Monitoring, Material Assets (Waste and Utilities) Chapters of Environmental Impact Assessment Reports (EIAR)s.

This report was reviewed by Grainne Ryan, Principal EIA Consultant at DNV. Gráinne is an Environmental Consultant with over 11 years' experience, specialising in EIAs for strategic infrastructure, renewable energy, residential, industrial and pharmaceutical projects. Gráinne has a B.A, in Geography, Planning and Environmental Policy, an MSc in Environmental Policy and a Post Graduate Diploma in Project Management.

This chapter has been approved by Catherine Keogan, Technical Director and EIA Lead at DNV. Catherine is an environmental consultant with 37 years' experience in consultancy, specialising in EIAs for large-scale residential, commercial developments, pharmaceutical, BESS and solar projects working closely with a range of developers, planning consultants and architects within the public and private sector. Catherine has a B.Sc. (Hons) in Analytical Science and a Post Graduate Diploma in Renewable Energy Technology Systems.

13.2 Study Methodology

13.2.1 Relevant Legislation and Guidance

The methodology adopted for the assessment takes cognisance of the relevant guidelines, in particular the following:

- Environmental Protection Agency (EPA) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EIAR) (2022);
- EPA (2021) Best Practice Guidelines for the Preparation of Resource & Waste Management Plans for Construction & Demolition Projects;
- Waste Framework Directive (Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste) as amended by Directive (EU) 2018/851;
- European Union (Waste Directive) Regulations 2020, S.I. No. 323 of 2020;
- Waste Management Acts 1996 (as amended);
- The National Waste Management Plan for a Circular Economy 2024-2030; and
- South Dublin County Development Plan 2022-2028.

Definitions of key terms such as “Material Assets,” “Waste,” and “Utilities” are applied consistently throughout this chapter in accordance with the EPA EIAR Guidelines (2022). “Material Assets” refers to physical infrastructure and services including energy, water, wastewater, telecommunications, and waste management systems.

Material Assets is a factor whose meaning has evolved over time. In Directive 2011/92/EU, it included architectural and archaeological heritage. Directive 2014/52/EU now includes those heritage aspects under the factor of Cultural Heritage. Material Assets can now be taken to mean built services and infrastructure. Traffic is included because, in effect, traffic consumes roads infrastructure. Sealing of agricultural land and effects on mining or quarrying potential are considered under the factor of Land and Soils.

In this EIAR, the Material Assets: Waste and Utilities chapter specifically addresses built services and infrastructure including:

- Surface Water Drainage;
- Wastewater Drainage;
- Water Supply;
- Electrical Supply;
- Gas Supply;
- Telecommunications; and
- Waste.

Impacts on other aspects commonly associated with Material Assets, such as Traffic, Population and Human Health, Air and Climate, are assessed in the following chapters of this EIAR:

- Chapter 4: Population and Human Health;
- Chapter 8: Air Quality;
- Chapter 9: Climate; and
- Chapter 13: Traffic.

Impacts arising from land take and soil sealing, defined as the covering of soil with impervious surfaces such as buildings, roads, and paved areas, are considered under Chapter 6: Land and Soils. These impacts include the loss of soil functions, reduced permeability, and changes to natural drainage and biodiversity. This approach aligns with EPA and European Environment Agency guidance on the treatment of land and soil in environmental assessments.

The scope of work undertaken for the impact assessment included a desk-based study of built services, utilities and waste management infrastructure within the area surrounding the site. The desk study involved collecting all the relevant data for the site and surrounding area, including published information and details pertaining to the Proposed Development provided by the Applicant and the design team.

Information on built assets in the vicinity of the site of the Proposed Development was assembled by the following means:

- ESB Networks Utility Maps;
- Uisce Éireann Utility Plans;
- Gas Networks Ireland Service plans;

- EIR E-Maps;
- Site Specific Flood Risk Assessment (Kilgallen & Partners Consulting Engineers, 2025);
- Drainage and Water Infrastructure Engineering Report (Roger Mullarkey & Associates, 2025);
- Resource and Waste Management Plan (DNV, 2025); and
- Construction Environmental Management Plan (DNV, 2025).
- Energy and Climate Action Statement (BBSC, 2025).

All phases of the Proposed Development were considered in the assessment of potential effects on Material Assets and Waste within the study area. Assessment of the likely effects of features of the Proposed Development, was carried out in accordance with the following codes of practice, guidelines, legislation, and plans:

- ESB Networks National Code of Practice for the Customer Interface Version 5 (2021);
- ESB Networks Construction Standards for MV Substation Buildings (2019);
- Uisce Éireann Code of Practice for Water Infrastructure Connections and Developer Services Design and Construction Requirements for Self-Lay Developments July 2020 (Revision 2);
- IS EN752, Drain and Sewer Systems Outside Buildings;
- Water Services Acts 2007 to 2017;
- CIRIA Report c753 “The SuDS Manual” (2015);
- Section 3.2 of the Urban Development and Building Heights: Guidelines for Planning Authorities (2018);
- Waste Framework Directive (Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste) as amended by Directive (EU) 2018/851;
- European Union (Waste Directive) Regulations 2011 - 2020, S.I. No. 323 of 2020;
- Waste Management Acts 1996 to 2011; and
- National Waste Management Plan for a Circular Economy 2024-2030.

13.2.2 Description and Assessment of Potential Impacts

Impacts vary in quality from negative, to neutral or positive. The effects of impacts will vary in significance on the receiving environment. Effects will also vary in duration. The terminology and methodology used for assessing the 'impact' significance and the corresponding 'effect' throughout this chapter is as described in Chapter 1 of this EIAR.

13.2.3 Local and National Waste Action Plans

The National Waste Management Plan for a Circular Economy (NWMPCE) 2024 -2030, sets out the framework for the prevention and management of waste across Ireland. This document is a statutory document underpinned by national and EU waste legislation, and reflects the targets set out for C & D waste in the Waste Framework Directive (WFD).

The strategic vision of the Plan is to rethink the approach to managing waste, and to move towards a 'circular economy' approach where resources are reused or recycled as much as possible, and the overall generation of waste is minimised.

In order to achieve this vision, the Plan has set out a number of specific and measurable performance targets in relation to construction and demolition waste:

- Achieve a 2% reduction per annum is proposed for total construction and demolition waste to achieve a cumulative 12% reduction by 2030 (baseline is 9 million tonnes); and
- Achieve 70% C & D waste sent for reuse, recycling and other recovery of construction and demolition waste (excluding natural soils and stones and hazardous wastes).

The Plan aims to "prioritise waste prevention and circularity in the construction and demolition sector to reduce the resources that need to be captured as waste". In order to achieve the objectives, set out in NWMPCE, it is imperative that robust resource and waste management plans are developed for and designed into the pre-construction, construction and operational phases of the Proposed Development.

For the purposes of this development, the objectives and targets set out in the NWMPCE are addressed through the RWMP and OWMP (DNV, 2025), which outline measures to minimise waste generation and maximise reuse and recovery across all phases of the Proposed Development.

The RWMP and OWMP (DNV, 2025), which support alignment with the NWMPCE, are submitted under separate cover as part of the planning application. These documents have been reviewed as part of this assessment and are referenced throughout this chapter where relevant.

13.2.4 Article 27 of the European Communities (Waste Directive) Regulations 2011

Under Article 27 of the European Communities (Waste Directive) Regulations 2011 (SI No. 126 of 2011) as amended (referred to hereafter as Article 27), uncontaminated soil and stone free from anthropogenic contamination which is excavated during the construction phase of a development can be considered a by-product and not a waste, if (a) further beneficial use of the material is certain, (b) it can be used directly without any further processing, (c) it is produced as an integral part of the development works and (d) the use is lawful and will not have any adverse environmental or human health impacts (EPA, 2019).

For Article 27 to apply, the beneficial use mentioned in point (a) above must be identified for the entirety of the excavated soil from the Proposed Development prior to its production, with that use taking place within a definite timeframe, for it to be regarded as certain.

13.3 The Existing and Receiving Environment (Baseline Situation)

The site of the Proposed Development is located to the north of Boherboy Road, approximately 2km south-west of Tallaght Town Centre, 1km east of Saggart, 700m south-west of Citywest Shopping Centre and 1.6km south of the N7.

13.3.1 Immediate Surroundings

The site is bounded by residential dwellings to the north and east. The areas to the west and south are predominantly undeveloped, agricultural lands. Three streams cross the site in a north south direction. These are the Corbally Stream, the Cooldown Stream and the Coldwater Stream. There are also a number of hedgerows running both around the edges of the site as well as through the site itself. The site falls steeply from south (approx. 155 AOD) to north (approx. 117.5 AOD).

The site of the Proposed Development consists of open fields used for agriculture. To the immediate north of the site is the Carrigmore residential estate, to the west are agricultural lands and a single dwelling, to the east is the Corbally residential estate and Carrigmore Park while to the south is the Boherboy Road.

13.3.2 Surface Water Drainage

Within the site, there is currently no surface water network. According to the 'Drainage and Water Infrastructure Engineering Report' prepared by Roger Mullarkey & Associates a topographical survey was carried out on the site and indicates that the lands slopes sharply downwards from the south end of the site towards the north. The existing ground level gradients range from 1/7 to 1/30 generally. There is an approximate drop in level of 38m from the highest portion (SW) of the site to the lowest point (NW). The existing ground topography forms a natural catchment with approximately 75% of the site draining towards the north-west and the remainder draining towards the north-east of the lands. All catchments drain to existing natural watercourses either side of the site.

13.3.3 Wastewater Drainage

There are no wastewater management requirements at present, and there are no known public drainage services on the site of the Proposed Development. There is no foul water sewer located on the subject lands. (Mullarkey & Associates, 2025)

13.3.4 Water Supply

There is no water supply or demand at present on site. According to the 'Drainage and Water Infrastructure Engineering Report' prepared by Roger Mullarkey & Associates there are 3 No existing watermains (4inch uPVC/400mmDI/600mmDI) on Boherboy Road along the site frontage. This application proposes to make a new water connection to the Boherboy watermain in the Boherboy Road.

There are 5 No existing trunk watermains crossing the subject land. A 1.2m Ø (1982 Concrete), a 27inch Ø (1938 Steel) and a 24inch (AC 1975) lie parallel to each other in the northern third of the site and also a 1.2m Ø (1983 Concrete) and 24inch Ø (1952 Cast Iron) lie parallel approximately in the middle of the site. Please refer to drawing No.1324D/412-415 for location of these existing trunk watermains. (Mullarkey, 2025).

These trunk watermains are in the control of Uisce Éireann. The set-back requirements from these mains are in accordance with the Uisce Éireann Code of Practice for Water Infrastructure document and extensive discussions were previously held with Uisce Éireann relating to development in proximity to same. Based on those discussions and design/drawing submissions, UÉ have previously confirmed their approval in issuing a Statement of Design acceptance letter (Ref.CDS20004359). (Mullarkey, 2025).

In order to precisely locate these existing trunk watermains, excavation of silt trenches was carried out with the permission of the then overseeing authority of Dublin City Council and South Dublin County Councils EWCC Dept. All mains were located, surveyed, mapped and the results issued to both SDCC, DCC and Uisce Éireann for their records. Furthermore, GPR (ground penetrating radar) surveys were carried confirming the watermain locations offsite through the SDCC park to the NE of the subject lands. (Mullarkey, 2025).

13.3.5 Electrical Supply

EirGrid develop and operate the national electricity grid and are responsible for taking electricity from the power generators and delivering it to the distribution network, which is operated by ESB Networks. The high-voltage Irish electricity transmission grid comprises 6,800 km of power lines and operates at 400 kV, 220 kV and 110 kV. Substations provide entry points to, and exits from, the transmission grid.

There is existing Electricity Supply Board Networks (ESBN) 38kV & 20kV infrastructure on the site, in the form of overhead 38kV & 20kV cables as highlighted on the ESBN map below. An application has been formally submitted to ESBN to divert the overhead lines on the site. (ENX, 2025)

A number of 110kV stations are located in the area surrounding the site (Citywest, Fortunestown and Cookstown) with the closest being the Citywest Station (EirGrid Group, Transmission System Map, 2025).

13.3.6 Gas Supply

Gas Networks Ireland builds, develops and operates Ireland's gas infrastructure, maintaining over 14,521 km of gas pipelines and two sub-sea interconnectors. Gas Networks Ireland is responsible for connecting all new gas customers to the network, and for work on service pipes and meters at customers' premises, on behalf of all gas suppliers in Ireland.

There is no gas supply at present on site, and none is proposed in the context of the Proposed Development.

13.3.7 Telecommunications

In terms of mobile telecommunication for transmission and reception, there are three mobile mast clusters adjacent to the site. To the northeast of the site is mast No. 41203, to the east of the site is mast No. 41208, and to the west of the site is mast No. 43552.

The Department of the Environment, Climate and Communications (DoECC) has published a High-Speed Broadband Map which identifies locations and premises based on the availability of high-speed broadband services. The site lies across a blue and amber area. A blue area is where "*where commercial operators are delivering or have indicated plans to deliver high speed broadband services. Operators are continuing to enhance their services in these areas to improve access to high-speed broadband*." Amber areas indicate *"target areas for the State intervention under the National Broadband Plan".* (DoECC, 2025).

13.3.8 Waste

The Proposed Development is located within South Dublin County Council's jurisdiction. South Dublin County Council (SDCC) is the local authority responsible for setting and administering waste management activities in the area of the Proposed Development. SDCC's waste management activities are governed by the requirements set out in the Eastern-Midlands Region Waste Management Plan 2015-2021, which has since been replaced by the National Waste Management Plan for a Circular Economy 2024-2030. The site is a greenfield site used for agriculture and has no current waste management requirements.

13.4 Characteristics of the Proposed Development

A comprehensive description of the Proposed Development is presented in Chapter 2 of this EIAR.

13.4.1 Aspects Relevant to this Chapter

This section has been prepared following a review of the SSFRA, Drainage and Water Infrastructure Engineering Report, RWMP and other supporting technical documentation submitted as part of the planning application.

13.4.1.1 Surface Water Drainage

The surface water drainage system for the Proposed Development was designed by Roger Mullarkey & Associates Consulting Structural & Civil Engineers in accordance with the Greater Dublin Regional Code of Practice, the GDSDS and CIRIA Report c753 “The SuDS Manual” 2015.

A full SuDS treatment train is proposed in accordance with the CIRIA SuDS Manual. The train comprises:

• Rain Garden planters to the rear down pipes of the houses;

• Permeable paving to all private parking areas draining roads and front roofs of the houses;

• Filter Swales adjacent to roadways where feasible;

• Tree pits where practically feasible;

• Use of the existing centrally located watercourse and hedgerow as a conveyance swale;

• Use of 9No.open detention basins and 1No. below ground system;

• Bio-Retention areas draining roads/paths and roofs;

• Silt-trap/catchpit manholes;

• Hydrobrakes limiting flow to the total Qbar greenfield rate;

• Petrol interceptors upstream of all outfall points;

• Stone lined voided arch retention storage devices

The site is to be drained following a SuDS treatment train philosophy and replicating a nature based solution in providing swales, tree-pits, bio-retention, use of open watercourse, over grassland flow, open detention basins, rain garden planters and permeable paving. All runoff is to be slowed down and treated naturally throughout the SuDS process before been attenuated to the site Qbar greenfield rate and out falling the Corbally stream to the east & north and to the Coldwater watercourse to the west. The S/W drainage is divided into 9No. separate catchment areas, each with its own SuDS interception, treatment, attenuation and storage. There is a potential c.1Ha future school site reserved on the lands that does not form part of this application but has been allowed for in the drainage calculations. (Mullarkey, 2025)

13.4.1.2 Wastewater Drainage

According to the 'Drainage and Water Infrastructure Report' prepared by Roger Mullarkey & Associates a new gravity foul sewer is to be constructed to an existing manhole located in Verschoyle Green via the SDCC lands to the NE of the site. c.25% of the site foul drainage will be pumped from a new pumping station in the NE corner into the proposed new gravity sewer while the remaining 75% flows by gravity in the same main. The 10No.units on the "east" Corbally site will drain foul by gravity into the existing sewer in Corbally Rise. Uisce Eireann have issued a Confirmation of Feasibility for this site noting the proposal was "feasible subject to upgrades".

Due to the sloping topography of the subject lands it is not feasible to drain the apartments on the northern c.20% of the site or potential future school site by gravity. Therefore, a foul water pumping station is proposed as part of this application to drain the above blocks from lower NE corner of the site into the gravity sewer to be constructed connecting into Verschoyle Green. The foul pumping station is to be in accordance with the Uisce Éireann Code of Practice for Wastewater Infrastructure 2025.

13.4.1.3 Water Supply

According to the 'Drainage and Water Infrastructure Engineering Report' prepared by Roger Mullarkey & Associates the drinking water is to be supplied by a new connection to the existing 400mm watermain on Boherboy Road and distributed throughout the site in 225/180/110mm OD watermains.

Confirmation of Feasibility has been received by Uisce Eireann. Uisce Éireann have issued a Confirmation of Feasibility letter Ref.CDS24005491 for this planning application noting that the water connection is "feasible without infrastructure upgrade" and the wastewater connection is "feasible subject to upgrades". (Roger Mullarkey & Associates, 2025)

As part of the previous applications on this site, extensive consultations were held Uisce Éireann, and detailed design and/drawing drawings were submitted and UÉ subsequently confirmed their approval in issuing the Statement of Design acceptance letter (Ref.CDS20004359) dated 19/08/21. (Roger Mullarkey & Associates, 2025)

Further agreements with UÉ will be made at Connection Application stage in relation to this latest planning application on this site. Prior to lodgement of this current application, full submission documentation has been lodged with UÉ regarding the details of the proposed crossing of the trunk watermains which are similar to that previously approved by UÉ. Upon a successfully grant of planning on the subject site and prior to commencement of development, the Applicants will agree with Uisce Éireann all the necessary protection details as part of the Connection Application process. (Roger Mullarkey & Associates, 2025)

Water demand has also been calculated in the Drainage and Water Infrastructure Engineering Report and are detailed in Figure 13.1.

New Network - DOMESTIC Water Demand								
Usage	Quantity	Occupancy	Population	Consumption (l//h/day)	Ave. Daily Domestic Demand (l/day)	Ave. Daily Domestic Demand (l/s)	Ave. Day/Peak Week (l/s)	Peak Hour Water Demand (l/s)
Resi'	611 Units	2.7 No./Unit	1,650	150	247,500	2.87	3.59	17.94l/s
Peak Hour Water Demand (Domestic)								17.94 /s

Based on Irish Water Code of Practice for Water Infrastructure (Aug'25)
Residential Water Demand Calculations

New Network - COMMERCIAL Water Demand								
Usage	Quantity	Occupancy	Population	Consumption (l//h/day)	Ave. Daily Domestic Demand (l/day)	Ave. Daily(12hr) Domestic Demand (l/s)	Ave. Day/Peak Week (l/s)	Peak Hour Water Demand (l/s)
Possible School Site	1Ha	16 Classes	450	50	22,500	0.52	0.65	3.25
Crèche	630m²	1child/8m² + Staff (20%) + support accommodation	95	50	4750	0.11	0.14	0.69
Peak Hour Water Demand (Commercial)								3.94 l/s

Based on Irish Water Code of Practice for Water Infrastructure (Aug'25)
Commercial Water Demand Calculations

Figure 13.1 Water Demand (Mullarkey & Associates)

13.4.1.4 Electrical Supply

According to the Energy and Climate Action Statement prepared by BBSC, electricity shall be supplied to the development by ESB Networks, once application is made.

It is proposed to divert all existing overhead ESB lines underground. A proposed ducting route is subject to agreement with ESB. (ENX, 2025)

From preliminary investigation and consultation with ESBN it is envisaged that new electricity ducting will tie into an existing MV circuits on neighbouring sites to service the new development. It is anticipated that 8 new plinth mounted ESBN unit substations will be sufficient to service the proposed developments electricity demands. The ESB unit substations in turn will serve a network of minipillars and underground vaults strategically located around the development within footpaths where possible. Individual meters which will be housed in cabinets located on end gable walls of dwelling houses & duplexes where space permits, or on nib walls in terrace dwelling scenarios, will be fed from the minipillars. Apartments will have centralised metering housed within dedicated electrical cupboards located internally within the common area of each block, also served by the minipillar infrastructure. (ENX, 2025)

It is expected that the development, will consume, on peak electrical energy consumption approximately 4,200KVA (3,570KW). However as not all equipment will not be on at the same time the expected live electrical demand will be in the order of 1,850KVA (1,570KW). (BBSC, 2025)

At least 4 or 5 substations, unit type, will be required to service the development. (BBSC, 2025)

All Electrical Vehicles outside of a dwelling curtilage will be powered directly from metered supplies from ESB Networks infrastructure. (BBSC, 2025)

All roofs for all buildings shall be capable of supporting Photovoltaic Units for generation of electricity from solar power. Should all roofs be employed to generate electricity, then the development could offset the electricity import in the order of 1,136,000 kwh/yr or more depending on the panels wattage rating, 450w used to assess. It is noted that panels are currently becoming more efficient as the development of the technology matures, the development could therefore supply more power than that stated above. (BBSC, 2025)

13.4.1.5 Gas Supply

There is no gas supply proposed.

13.4.1.6 Telecommunications

According to the Energy and Climate Action Statement prepared by BBSC, Telecommunications, are to be linked to the existing networks available in the roads, estates and surrounding the area of the Proposed Development.

All telecommunications related works will be carried out in accordance with;

- The Gigabit Infrastructure Act (GIA) 2024
- Guide to the Installation of Telecoms Infrastructure in Residential and Mixed-Use Developments, April 2024 Version 13, Dublin City Council – Telecoms Unit
- South Dublin County Council Section 254 Appliance Licences - Telecommunications Infrastructure
- PAS 2016:2010, Next generation access for new build homes – Guide to telecommunications.
- EIR National standards “Duct Access Technical & Operational Manual”
- Siro National Standards.
- Virgin National Standards “New Build Handbook”

According to the Utility Report prepared by ENX, all utility provider service cables associated with the proposed development shall be located underground where possible. Ducting will be provided to facilitate the provision of broadband infrastructure. All underground chambers shall be suitably traffic rated for the location in which it is intended that they are installed.

All ducts in the development will be vendor neutral. Ducts shall enter the development from each vendors network to a common manhole for distribution around the development. (BBSC, 2025)

The installation of the utilities for the development will be conducted in parallel with the others services being provided to the Proposed Development. (BBSC, 2025)

The development will use fibre spitter panels which typically has extension ports to allow for speedy extension of the network to allow for future development. (BBSC, 2025)

In order to allow for the connection of fibre broadband local street mounted cabinets will be required, as is typical for such installations, as these allow for wiring terminations and other

equipment to allow for connection to the internet. These are typically 850x350x1250mm high and are site agreed once application to connect has been lodged with the users. (BBSC, 2025)

Impact of these critical site preparation works is likely, positive, significant and permanent, will allow for users of the development to be provided with fibre-based broadband, increase commerce and facilitate interconnectivity across communities. (BBSC, 2025)

The existing housing estates, primarily, to the east and north of the developments, existing infrastructure shall be extended into the Proposed Development as is normal practice for developments of this type. (BBSC, 2025)

For network integrity and security the development will install, in ground, vendor neutral ducting to allow for any user to be provided by any vendor. It is proposed to connect to the existing services on the existing roads surrounding the development. Branch offs from this spine shall be brought into the Proposed Development via 110mm Green Ducts. Access to the ducts will be by means of manhole cover junction relay boxes, mounted in ground. (BBSC, 2025)

Telecommunications supply, and the requirement for any alterations to the existing telecommunications network for the Proposed Development, will be agreed in advance of construction with the relevant telecommunications providers. (BBSC, 2025)

Eir, Siro and Virgin will be contacted and on similar projects in the area, have indicated that each entity has no issues with supplying the development with Fibre based telecommunications for broadband. There cables shall be routed in dedicated ducting as described above. Once the vendors enter the development, these ducts shall be common to all providers, please see Figure 2. It shall terminate in an ETU interface module prior to entering the dwelling. 110 denotes 110mm diameter in ground duct. 38 denotes 38mm diameter in ground duct. (BBSC, 2025)

Telecoms shall be to Gigabit Infrastructure Act 2024 with the arrangements for Fibre broadband to dwellings and Apartments requiring common ducting, chambers etc. (BBSC, 2025)

13.4.1.7 Waste

The waste management objectives for the Proposed Development are as follows, and will facilitate material reuse and recycling, where possible, and seek to divert waste from landfill:

- Prevention: The Principal Contractor will prevent and minimise waste generation where possible by ensuring large surpluses of construction materials are not delivered to the site through coordination with the suppliers, operating a ‘just-in-time’ delivery scheme and ensuring sub-contractors conform to the Contractor(s) Construction and Environmental Management Plan (CEMP), being an update to the principles set out in the CEMP submitted with this application;
- Reuse: Reusing wastes and surplus materials where feasible and in as many high value uses as possible;
- Recycle: Recycling wastes where possible such as introducing on site crushers to produce waste derived aggregates which, subject to appropriate testing and approvals, may be re-used in the Proposed Development; and

- Disposal: Where disposal of waste is unavoidable, this will be undertaken in accordance with the Waste Management Act 1996, as amended.

13.5 Potential Effect of the Proposed Development

13.5.1 Construction Phase

13.5.1.1 Surface Water Drainage

Construction activities have the potential to cause contamination of surface water runoff with entrained sediment or other contaminants from groundworks areas and stockpiled soils. There will be no unauthorised discharge of water (groundwater or surface water runoff) to ground, drains or water courses during the construction phase. Surface runoff will be managed during construction and there will be no unauthorised discharges of water from the site. However, in the event of a rainfall event, surface runoff entering the open excavations could result in mobilisation of identified hydrocarbon contamination in soil and leaching and migration to groundwater beneath the site. The potential effects will be negative, slight and short term and is considered non-significant in the context of the EIA Directive. Chapter 7 Hydrology and Hydrogeology of this EIAR, has assessed the potential effects on surface water in further detail.

According to the Site-Specific Flood Risk Assessment prepared by Kilgallen & Partners, the Proposed Development is not at risk of flooding and will not increase flood risk elsewhere. The Proposed Development is therefore appropriate from a flood risk perspective.

13.5.1.2 Water Supply

Site offices and construction activities will create a demand for water supply to the site. A temporary connection is required to facilitate on-site works for all housing developments. Commencement of construction will therefore result in a net increase in the water demand for the site. According to the 'Drainage and Water Infrastructure Engineering Report' prepared by Roger Mullarkey & Associates the drinking water is to be supplied by a new connection to the existing 400mm watermain on Boherboy Road and distributed throughout the site in 225/180/110mm OD watermains.

New connection works may cause water supply disruptions during the construction phase. These disruptions will be controlled by UÉ and South Dublin County Council in accordance with standard protocols. Due to the nature of the works during the construction phase, the likely effect will be negative, imperceptible and short-term and is considered non-significant in the context of the EIA Directive. (Mullarkey & Associates, 2025)

13.5.1.3 Electricity Supply

Construction related activities will require temporary connection to the local electrical supply network. The Main Contractor will apply for a power supply from ESB Networks to power both the compound and the construction site. The size of supply will be calculated to ensure it is sufficient to power both the site compounds and construction site activities. A temporary suspension of the network locally to facilitate the connection works may be required during the construction phase, and an additional temporary suspension will also occur when power is provided to the site of the Proposed Development. These temporary suspensions will be

controlled by ESB Networks as the statutory undertaker and in accordance with standard protocols. The potential effect from the construction phase of the Proposed Development on the local electrical supply network is likely to be negative to neutral, slight and temporary, depending on the length of temporary network suspensions, and is considered non-significant in the context of the EIA Directive.

13.5.1.4 Gas Supply

It is not anticipated that there will be a requirement for gas connection during the construction phase.

13.5.1.5 Waste

A Resource Waste Management Plan (RWMP) has been prepared for the Proposed Development by DNV (2025) and has been submitted with the planning application under separate cover. The construction phase will give rise to the requirement to remove and bring quantities of various materials to and from the site. Construction and excavation related wastes will be created during the construction phase. This has the potential to effect on the local waste management network. Waste will also be generated from construction workers e.g., organic/food waste, dry mixed recyclables (wastepaper, newspaper, plastic bottles, packaging, aluminium cans, tins and cartons), mixed non-recyclables and potentially sewage sludge from temporary welfare facilities provided onsite during the construction phase. Waste printer/toner cartridges, waste electrical and electronic equipment (WEEE) and waste batteries may also be generated infrequently from site offices. Office and canteen waste, including food waste, will be stored in wheelie bins on site and it will be collected by an appropriately authorised waste collector. All wastes generated on site will be sent for recycling, recovery, or disposal to a suitably licensed or permitted waste facility.

The potential effect from the construction phase on waste recovery and disposal will be negative, slight and short-term and is considered non-significant in the context of the EIA Directive.

13.5.2 Operational Phase

13.5.2.1 Surface Water Drainage

During operation, the site will have increased impermeable surfaces due to the access roads and houses. Surface water runoff from roads and the impermeable areas of the Proposed Development may contain potentially contaminating compounds (petroleum hydrocarbons, metals, and suspended sediments). Surface water from the Proposed Development will be managed in accordance with the principles and objectives of Sustainable Drainage Systems (SuDS). Overall, the likely effect of the surface water drainage strategy for the Proposed Development will be negative, slight and long-term and is considered non-significant in the context of the EIA Directive. Chapter 7 Hydrology and Hydrogeology of this EIAR, has assessed the potential effects on surface water in further detail.

According to the Site-Specific Flood Risk Assessment prepared by Kilgallen & Partners, the Proposed Development is not at risk of flooding and will not increase flood risk elsewhere. The Proposed Development is therefore appropriate from a flood risk perspective.

13.5.2.2 Wastewater Drainage

There is no foul water sewer located on the subject lands. Therefore, it is proposed to service the subject lands by providing a new gravity foul sewer across the SDCC park to the northeast of the site connecting into the existing Uisce Éireann (UÉ) foul infrastructure in Verschoyle Green. This has been agreed with Uisce Éireann and approved by them under Ref.CDS24005491. (Mullarkey & Associates, 2025)

Due to the sloping topography of the subject lands it is not feasible to drain the apartments on the northern c.20% of the site or potential future school site by gravity. Therefore, a foul water pumping station is proposed as part of this application to drain the above blocks from lower NE corner of the site into the gravity sewer to be constructed connecting into Verschoyle Green. The foul pumping station is to be in accordance with the Uisce Éireann Code of Practice for Wastewater Infrastructure 2025 and is detailed on Dwg.1324B/221. (Mullarkey & Associates, 2025)

Approximately 75% of the foul water drainage system outfalls by gravity flow into the existing Uisce Éireann infrastructure located to the east of the subject site at Verschoyle Green. The lower level c.25% north end of the site incorporates a pumping station to drain the foul via a rising main into the outfalling gravity pipe. Foul drainage for the 10No. “east” Corbally site is to connect to the existing foul drainage in Corbally Rise. Potable water supply for the main site is to be supplied from the existing 400mm DI Uisce Éireann owned infrastructure on Boherboy Road to the south of the site. Water for the 10No. “east” Corbally site is to be supplied from the existing main in Corbally Rise. (Mullarkey & Associates, 2025)

Foul water from the Proposed Development will only be discharged to the ÚE foul sewer under agreement from ÚE and other applicable statutory consents verifying capacity for the Proposed Development. Therefore, it is considered that the likely effect on the water quality from wastewater generated onsite runoff will be negative, imperceptible and long-term and is considered non-significant in the context of the EIA Directive.

13.5.2.3 Electricity Supply

Electricity will be required to provide public lighting, domestic lighting, power supply and heating for each individual unit for the Proposed Development along with electric vehicle parking. The Proposed Development is likely to increase demand on the existing electricity supply network. The potential effect from the operational phase on the electricity supply network is likely to be neutral, imperceptible, and long-term and is considered non-significant in the context of the EIA Directive.

13.5.2.4 Gas Supply

There is no gas supply proposed.

13.5.2.5 Telecommunications

The operational phase will have a marginal increase in demand on the local telecommunications network. The site is located within an area where high speed broadband is available and there are three mobile mast clusters adjacent to the site. The likely effect of the operational phase on the local telecommunications network will be neutral, and imperceptible in the long-term and is considered non-significant in the context of the EIA Directive.

13.5.2.6 Waste

An Operational Waste Management Plan (OWMP) has been prepared for the Proposed Development by DNV (2025) and has been submitted with the planning application under separate cover. The OWMP has been prepared to ensure that the management of waste during the operational phase of the bye laws is undertaken in accordance with current legal and industry standards including the 'Waste Management Act 1996, as amended', and associated Regulations including, 'Protection of the Environment Act 2003 as amended', 'Litter Pollution Act 1997 as amended', the 'National Waste Management Plan for a Circular Economy 2024-2030' and 'South Dublin County Council Waste Management Household and Commercial Waste Bye-laws 2018' (hereinafter referred to as 'the bye-laws').

The operational phase of the Proposed Development will result in an increase in the production of municipal waste in the region and will increase demand on waste collectors and treatment facilities, however, as the surrounding area is urban in nature, waste collection is commonplace. Under the classification system, different types of wastes are fully defined by a code.

The predicted waste types that will be generated at the Proposed Development residential units include the following:

- Mixed Municipal Waste (MMW)/General Waste;
- Dry Mixed Recyclables (DMR) – including cardboard, plastic packaging, aluminium cans, tins, paper, and Tetra Pak cartons;
- Organic (food) Waste; and
- Glass.

In addition to the typical waste materials that will be generated daily, there will be some additional waste types generated in small quantities that will need to be managed separately including:

- Bulky wastes – including furniture, carpets, mattresses;
- Waste electrical and electronic equipment (WEEE);
- Batteries;
- Textiles – clothes or soft furnishings;
- Light bulbs or fluorescent tubes;
- Chemicals – old medicines, paints, detergents; and
- Waste oil - cooking oil.

All waste collections must take place in compliance with conditions of the Waste Contractor's Waste Collection Permit for the region and in line with the Local Authority bye-laws and the Waste Management (Waste Collection Permit) Regulations 2007 as amended. All residents are obliged by law to avail of the waste management service and must comply with local bye-laws and Statutory Instruments in relation to the presentation of waste for collection. Waste collections for a four-bin system service will be available from the time of first occupancy (i.e. even if all dwellings are not occupied).

A waste collection service will be available to all occupants from first occupancy, irrespective of whether all units have been filled or not.

In all cases, waste collection vehicles will service the bins, and the empty bins will be returned to the Waste Storage Areas. Bins will never be left outside the curtilage of the development. Access and egress of the waste collection vehicles will be in accordance with the Traffic Management Plan for the facility which has ensured the design allows for free-flowing movement of refuse collection vehicles throughout the development. BS 5906: 2005 – Waste Management in Buildings – Code of Practice has been taken into consideration when detailing vehicular access and egress to the development for the purposes of waste collection.

Records of the collections from the apartments and duplexes will be maintained by the management company for the development including reports from the facilities to which the waste is taken. Residents of individual dwellings will be responsible for maintaining their own waste collection records.

All bins in the shared Waste Storage Areas will be accessible for collection by the waste management contractor. It will be the responsibility of the management company to ensure that bins are accessible for collection from the Waste Storage Areas by the waste management operatives and to assist on collection day to wheel out and replace bins during collection where required.

Occupants of residential houses will be responsible for placing their own bins at the kerb for collection, and for the return of those bins to the storage areas within the curtilage of their dwelling in compliance with the SDCC Bye Laws require that kerbside waste presented for collection shall not be presented for collection earlier than 8.00 pm on the day immediately proceeding the designated waste collection day. All containers used for the presentation of kerbside waste and any uncollected waste shall be removed from any roadway, footway, footpath or any other public place no later than 8:00am on the day following the designated waste collection day.

The waste strategy presented in the OWMP sets out how waste storage and management has been designed in accordance with legal requirements, policies and good management guidelines.

By implementing design and actions outlined in this OWMP, a high level of recycling, reuse and recovery will be achieved at the development in line with European targets. Dry Mixed Recyclables (DMR) and Organic (food) Waste will be segregated at source to reduce the quantity of residual waste materials requiring off-site recovery or disposal.

The source segregation of waste types as detailed in this report will help to achieve the targets set out in the *National Waste Management Plan for a Circular Economy 2024-2030*.

The design of the Waste Storage Areas will meet the requirements as detailed in the "*Sustainable Urban Housing: Design Standards for New Apartments",* July 2023.

The capacity of waste collection companies and waste management facilities in South County Dublin have been designed with forward planning and expansion in mind to cater for a growing population. It is necessary that all the developments provide the infrastructure and services to assist residents to segregate domestic waste at source, in order to reduce the generation and disposal of non-recyclable mixed waste. Existing waste collections currently take place in the local area and during the operational phase, the Proposed Development will be added to an existing collection route. The potential effect from the operational phase on municipal waste

disposal is likely to be long-term, negative and slight in nature and is considered non-significant in the context of the EIA Directive.

13.5.3 Potential Cumulative Effects

Cumulative Impacts can be defined as "impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project". Effects which are caused by the interaction of effects, or by associated or off-site projects, are classed as indirect effects. Cumulative effects are often indirect, arising from the accumulation of different effects that are individually minor.

The projects considered for potential cumulative developments are detailed in Chapter 2 of this EIAR.

It is considered that there is no potential for the Proposed Development to act in-combination with other permitted developments in the vicinity that could cause likely significant effects on;

- Surface water drainage;
- Wastewater drainage;
- Water supply;
- Electrical supply;
- Gas supply;
- Telecommunications; and
- Waste.

13.5.4 "Do Nothing" Effect

In the 'Do Nothing' scenario, the Proposed Development does not proceed and there would be no excavation, construction or operational waste generated at the site. There would, therefore, be no additional demand or loading on waste management infrastructure locally or nationally and thus there would be a neutral effect on the environment in terms of waste.

There would also be no increase in the demand on the existing surface water and wastewater drainage, water, electrical and gas supply or telecommunications. Therefore, the effect on surrounding utilities infrastructure would be neutral.

As the site is zoned for residential development, in the absence of the Proposed Development, it is likely that a development of a similar nature is likely to be constructed in the future in line with national policy and the development plan objectives. Therefore, the construction and operational phase effects outlined in this assessment are likely to occur in the future, even in the absence of the Proposed Development.

13.6 Avoidance, Remedial & Mitigation Measures

13.6.1 Construction Phase

13.6.1.1 Surface Water

Specific avoidance, remedial and mitigation measures to be taken during the construction phase with respect to surface water drainage are detailed within Chapter 7 Hydrology and

Hydrogeology of this EIAR. All works will be carried out in accordance with the Construction and Environmental Management Plan (CEMP) prepared for the Proposed Development and the Irish Water Code of Practice for Water Infrastructure (July 2020) and the Irish Water Code of Practice for Wastewater Infrastructure (July 2020). The construction of any watermains infrastructure will be in accordance with Uisce Éireann standards.

13.6.1.2 Wastewater Drainage

Specific avoidance, remedial and mitigation measures to be taken during the construction phase with respect to foul water are detailed within Chapter 7 Hydrology and Hydrogeology of this EIAR. All works will be carried out in accordance with the Construction and Environmental Management Plan prepared for the Proposed Development and the Irish Water Code of Practice for Water Infrastructure (July 2020) and the Irish Water Code of Practice for Wastewater Infrastructure (July 2020). The construction of any wastewater infrastructure will be in accordance with Uisce Éireann standards.

13.6.1.3 Water Supply

Confirmation of Feasibility has been received by Uisce Eireann. Uisce Éireann have issued a Confirmation of Feasibility letter Ref.CDS24005491 for this planning application noting that the water connection is “feasible without infrastructure upgrade” and the wastewater connection is “feasible subject to upgrades”. (Roger Mullarkey & Associates, 2025)

As part of the previous applications on this site, extensive consultations were held Uisce Éireann, and detailed design and/drawing drawings were submitted and UÉ subsequently confirmed their approval in issuing the Statement of Design acceptance letter (Ref.CDS20004359) dated 19/08/21. (Roger Mullarkey & Associates, 2025)

Further agreements with UÉ will be made at Connection Application stage in relation to this latest planning application on this site. Prior to lodgement of this current application, full submission documentation has been lodged with UÉ regarding the details of the proposed crossing of the trunk watermains which are similar to that previously approved by UÉ. Upon a successfully grant of planning on the subject site and prior to commencement of development, the Applicants will agree with Uisce Éireann all the necessary protection details as part of the Connection Application process. (Roger Mullarkey & Associates, 2025)

Utilities providers will be responsible for the management and any required upgrades of water supply and as such no mitigation measures are required. (Roger Mullarkey & Associates, 2025)

13.6.1.4 Electricity

New connections for electricity supply will be coordinated with the relevant utility provider and South Dublin County Council and will be carried out and tested by approved contractors, as per standard protocols and as such no mitigation measures are required.

13.6.1.5 Gas

There is no gas supply proposed and as such no mitigation measures are required.

13.6.1.6 Telecommunications

Any new connections required for telecommunications will be coordinated with the relevant utility provider and South Dublin County Council and will be carried out and tested by approved contractors, as per standard protocols and as such no mitigation measures are required.

13.6.1.7 Waste

The waste management objective will be to prevent waste arising in the first place, and to re-use, recycle or recover waste materials where possible. The following mitigation measures are recommended for the construction phase of the Proposed Development regarding waste management:

- Waste materials will be separated at source and will follow the Resource and Waste Management Plan (RWMP) and Contractor(s) Construction Environmental Management Plan (CEMP);
- Prior to the commencement of the construction phase detailed calculations of the quantities of topsoil, subsoil and green waste will be prepared, and soils will be tested to confirm they are clean, inert or non-hazardous;
- A policy of 'as needed' ordering and strict purchasing procedures will be implemented to prevent waste arisings as far as possible;
- The Contractor will vet the source of aggregate, fill material and topsoil imported to the site in order to ensure that it is of a reputable origin and that it is "clean" (i.e., it will not contaminate the environment).
- The Contractor and/or Council will implement procurement procedures to ensure that aggregate, fill material and topsoil are acquired from reputable sources with suitable environmental management systems as well as regulatory and legal compliance;
- The waste materials generated during the construction phase will be stored in suitably size receptables and transferred offsite for appropriate processing, recycling and recovery;
- Waste materials generated from the construction phase that are unsuitable for reuse or recovery will be separately collected;
- Disposal of construction generated wastes will be considered a last resort and only after recycling or recovery options have been ruled out;
- A suitably competent and fully permitted waste management company will be employed to manage waste arising for the construction phase. The appointed waste contractor must have the relevant authorisations for the collection and transport of waste materials, issued by the National Waste Collection Permit Office (NWCPO);
- All waste materials will be transported to an appropriately authorised facility, which must have the relevant authorisations for the acceptance and treatment of the specific waste streams, i.e., a Certificate of Registration (COR) or a Waste Facility Permit (WFP) as granted by a Local Authority, or a Waste/Industrial Emission Licence as granted by the Environmental Protection Agency;

- It is not envisaged that there will be any hazardous waste generated throughout the construction works however, in the event that hazardous soil, or historically deposited waste is encountered during the site bulk excavation phase, the contractor will notify South Dublin County Council and provide a Hazardous / Contaminated Soil Management Plan, to include estimated tonnages, description of location, any relevant mitigation, destination for disposal/treatment, in addition to information on the authorised waste collector(s). Only authorised facilities will be used and as a result of this, the potential effects at any authorised receiving facility sites will have been adequately assessed and mitigated as part of the statutory consent procedures;
- Waste generated by construction workers will be stored in wheelie bins on site and it will be collected by an appropriately authorised waste collector. All wastes generated on site will be sent for recycling, recovery, or disposal to a suitably licensed or permitted waste facility; and
- All waste quantities and types will be recorded and quantified, and records will be retained onsite for the duration of the construction phase.

These mitigation measures will ensure that the waste arising from the construction phase of the Proposed Development is dealt with in compliance with provisions of the Waste Management Act 1996, as amended, associated Regulations and Litter Pollution Act 1997, and The National Waste Management Plan for a Circular Economy 2024-2030. The mitigation measures will also ensure optimum levels of waste reduction, reuse, recycling and recover are achieved and will promote more sustainable consumption of resources.

The Contractor will have the responsibility to record resource and waste management at the site in line with the Resource and Waste Management Plan (RWMP). Some of the principal duties and responsibilities of this role include:

- Report to Project Manager on the management of resources and waste at the site;
- Identify all destinations for resources taken off-site;
- Address end-of-waste and by-product notifications with the EPA, where applicable;
- Maintain full records of all resources (both wastes and other resources) for the duration of the project;
- Delegate responsibility to sub-contractors, where necessary;
- Coordinate with suppliers, service providers and sub-contractors; and
- Prioritise waste prevention and resource salvage.

13.6.2 Operational Phase

13.6.2.1 Surface Water

Due to the incorporated design measures relating to surface water, no additional mitigation measures are required. Following planning application stage, connection agreements will be made with Uisce Éireann to ensure water supply to the site and foul water discharge off site and no additional mitigation measures will be required.

13.6.2.2 Wastewater Drainage

Due to the incorporated design measures relating to foul / wastewater, no additional mitigation measures are required. Following planning application stage, connection agreements will be made with Uisce Éireann to ensure water supply to the site and foul water discharge off site and no additional mitigation measures will be required.

13.6.2.3 Water Supply

Confirmation of Feasibility has been received by Uisce Eireann. Utilities providers will be responsible for the management and any required upgrades of water supply and as such no mitigation measures are required.

13.6.2.4 Electricity

Utilities providers will be responsible for the management and any required upgrades of electricity supply and as such no mitigation measures are required.

13.6.2.5 Gas

There is no gas supply proposed and as such no mitigation measures are required.

13.6.2.6 Telecommunications

Utilities providers will be responsible for the management and any required upgrades of telecommunications and as such no mitigation measures are required.

13.6.2.7 Waste

As previously stated, an Operational Waste Management Plan (OWMP) has been prepared by DNV (2025) for the Proposed Development. A waste strategy is presented in the OWMP which considers legal requirements, policies, and best management guidelines. This plan also demonstrates that the Waste Storage Area (WSA) has been incorporated within the design of the Proposed Development.

Implementation of the OWMP will ensure that a high level of recycling, reuse, and recover at the Proposed Development during the operational phase. All materials that are considered recyclable will be segregated and separated at source to reduce costs from the waste collector and ensure maximum diversion of material from landfill. The waste strategy presented in the OWMP will provide sufficient storage capacity for the estimated quantity of segregated waste. The designated WSA will provide sufficient room for the required receptacles in accordance with the details of this strategy.

As outlined in the OWMP, it is intended to ensure that the highest possible levels of waste reduction, waste reuse and waste recycling are achieved for the Proposed Development. Specifically, the OWMP will aim to achieve waste prevention, maximum recycling and recovery of waste with a focus on diversion of waste from landfill wherever possible.

It will be a condition of any management contract at the development that adequate budgets are in place for the provision of all required waste management services including a four-bin system for the collection of separate Organic (food) Waste, Dry Mixed Recyclables (DMR), Mixed Municipal Waste (MMW) / General Waste and Glass from the apartments and duplexes.

The Management Company appointed will be required to continually monitor the performance of the waste management system. This will include routine visual checks of the WSAs to ensure that all bins collected are returned to the WSAs and to ensure this area is maintained so as not to cause any environmental nuisance to residents. These checks will also assess if the bins are in good condition or need to be replaced where damage is identified.

Provision for bin cleaning will be included in the contract with the waste management contractor appointed to ensure the provision of bin cleaning services or replacement of clean bins by the waste contractor.

The Management Company will review all annual waste reports from the Waste Collection Company appointed to ensure that the waste collected is in line with the European recycling targets. Where poor recycling rates are noted information leaflets will be recirculated to all residents which will include information on what materials can be recycled and the waste streams that can be placed in bins. Residents will also be reminded of legal obligations where applicable. Further communication strategy to engage tenants and owner occupiers in good waste management practices will be adopted if deemed necessary.

Contingency policies will be in place to ensure continuity of service.

Each appointed Waste Contractor must hold a valid waste collection permit to transport waste which is issued by the National Waste Collection Permit Office (NWCPO). Waste treatment facilities must also be appropriately permitted (Waste Facility Permit or Certificate of Registration) or licensed by the Local Authority or Environmental Protection Agency to accept the waste. The Management Company appointed will be responsible for ensuring that all Waste Contractors hold the appropriate authorisations.

The OWMP has reviewed policy alongside best practice guidance and recommendations for sustainable waste and recycling management arrangements for the Proposed Development and ensures a high level of recycling, reuse and recovery at the development and also ensures that waste management is carried out in accordance with the requirements of the South Dublin County Development Plan 2022-2028 and Ireland's National Waste Policy.

13.6.3 "Worst Case" Scenario

13.6.3.1 Surface Water

A worst-case scenario in relation to surface water would be a failure or blockage of drainage infrastructure resulting in surface flooding. The surface water drainage system has been designed to capture, store and discharge surface water run-off from rainfall events for all return periods up to and including 100 years (with an allowance for climate change). Notwithstanding this, a blockage could occur in the surface water drainage system, leading to the risk of water rising in upstream manholes to the point where the manhole overtops and water overflows on to the surrounding ground. The Proposed Development provides routes for the conveyance of such overflows which ensure that buildings would not be at risk of flooding in this event. Refer to Drg No 1324B/315 Exceedance Overflow Route prepared as part of the surface water drainage design. (Kilgallen and Partners, 2025).

However, taking account of the avoidance and mitigation measures, the worst-case scenario is deemed to be an unlikely scenario.

13.6.3.2 Wastewater

A worst-case scenario in relation to wastewater drainage would be where construction works resulted in an extended disruption to sewerage systems for existing properties in the area due to unforeseen delays on site. However, taking account of the avoidance and mitigation measures, the worst-case scenario is deemed to be an unlikely scenario.

13.6.3.3 Electricity

A worst-case scenario in relation to electricity supply would be where construction works resulted in an extended disruption for existing properties in the area due to unforeseen delays on site. However, taking account of the avoidance and mitigation measures, the worst-case scenario is deemed to be an unlikely scenario.

13.6.3.4 Gas

There is no gas proposed as part of the Proposed Development and therefore a worst-case scenario has not been assessed.

13.6.3.5 Telecommunications

A worst-case scenario in relation to telecommunications would be where construction works resulted in an extended disruption for existing properties in the area due to unforeseen delays on site. Utilities providers will be responsible for the management and any required upgrades of telecommunications and as such no mitigation measures are required.

13.6.3.6 Waste

A worst-case scenario in relation to waste would be where a previously unclassified hazardous waste stream arose on the site during excavations, which was not identified and segregated appropriately and resulted in the contamination of a non-hazardous waste stream, such as soil and stones, resulting in a large volume of hazardous waste that would require specialist removal and treatment. Additionally, the contaminated soil and stones would no longer be fit for use for fill and landscaping and would need to be replaced with imported materials.

13.7 Residual Impacts

13.7.1 Construction Phase

13.7.1.1 Surface Water Drainage

Having regard to the prevention and mitigation measures proposed within this and other chapters of the EIAR, the residual effects on surface water drainage will be neutral, imperceptible and short-term.

13.7.1.2 Wastewater Drainage

Having regard to the prevention and mitigation measures proposed within this and other chapters of the EIAR, the residual effects on wastewater will be as neutral, imperceptible and short term.

13.7.1.3 Water Supply

Having regard to the prevention and mitigation measures proposed within this and other chapters of the EIAR, the residual effects on water supply will be negative, imperceptible and short term.

13.7.1.4 Electricity

Having regard to the prevention and mitigation measures proposed within this and other chapters of the EIAR, the residual effects on electrical supply will be negative to neutral, slight and temporary, depending on the length of temporary network suspensions.

13.7.1.5 Waste

The residual effects on waste management are considered slight, neutral, direct and short-term, this is due to:

- The prevention and mitigation measures proposed within this and other chapters of the EIAR;
- Compliance with national legislation and the allocation of adequate time and re-sources dedicated to efficient waste management practices; and
- Continued use of permitted/licensed waste hauliers and facilities. Waste removed from the facility will be managed appropriately and will avoid environmental effects or pollution. In addition, the correct management and storage of waste will avoid litter or pollution issues at the site.

13.7.2 Operational Phase

13.7.2.1 Surface Water

Having regard to the prevention and mitigation measures proposed within this and other chapters of the EIAR, the residual effects on surface water drainage will be neutral, imperceptible and long-term.

13.7.2.2 Wastewater Drainage

Having regard to the prevention and mitigation measures proposed within this and other chapters of the EIAR, the residual effects on wastewater will be neutral, imperceptible and long-term.

13.7.2.3 Water Supply

No mitigation measures are proposed in relation to water supply therefore the residual effects will have a neutral, imperceptible, long-term effect.

13.7.2.4 Electricity

No mitigation measures are proposed in relation to electrical supply therefore the residual effects will have a neutral, imperceptible, long-term effect.

13.7.2.5 Telecommunications

Having regard to the prevention and mitigation measures proposed within this and other chapters of the EIAR, the residual effects on telecommunications will remain as neutral, and imperceptible in the long-term.

13.7.2.6 Waste

Waste materials will be generated on an ongoing basis during the operational phase; these will for the most part consist of municipal waste and recyclable materials. Careful management of these, including segregation at source, will help to ensure a high level of waste recycling, reuse, and recovery at the development. Given the provision of appropriate facilities, and their correct use by residents, environmental effects (e.g. litter, contamination of soil or water, etc.) arising from operational waste storage and removal are expected to be minimal. The use of suitably licensed waste contractors will ensure compliance with relevant legal requirements and appropriate off-site management of waste. With the implementation of the proposed operational waste management measures, the Proposed Development is not expected to have a significant environmental effect with respect to operational waste. The likely effect of the operational phase on waste management will be neutral, direct and slight in the long-term.

13.8 Monitoring

13.8.1 Construction Phase

The site control measures to manage and minimise waste include:

- Signage on the site office/welfare bins to separate them as environmental/domestic waste bins; and
- Briefing for all sub-contractors via induction handouts.

During the construction phase, a procedure for waste auditing will be in place as per the RWMP which has been prepared for the planning application and is submitted under separate cover. The purpose of the waste auditing is to identify any problems with the site's waste procedures and also the benefits of prevention and minimisation that is in place. The audit will be a 'self-audit' process carried out by the Resource Manager (RM) and/or appointed team member/contractor. The RM will create an Audit Plan and identify the appropriate frequency at which the audits are to be conducted over the course of the construction phase. The waste audit will document details of the quantity, type and composition of all waste removed from the site. The audit findings will highlight any corrective actions that may need to be taken in relation to waste management procedures or site practices. These corrective actions will be tracked in order to identify root- causes as appropriate (DNV, 2025).

13.8.2 Operational Phase

The building management company and future residents will be required to maintain the bins and storage areas in good condition. The waste strategy presented in the OWMP will provide sufficient storage capacity for the estimated quantity of segregated waste. The designated areas for waste storage will provide sufficient room for the required receptacles in accordance with the details of this strategy.

13.9 Interactions

13.9.1 Population and Human Health

In the absence of mitigation, the improper removal, handling, and storage of waste could have adverse effects on the health of construction workers. Extended power or telecommunications outages, or disruption to water supply or sewerage systems for existing properties in the area, could adversely affect the surrounding human population and their overall health. Chapter 4: Population and Human Health of this EIAR has concluded that no long-term, significant adverse effects are likely to impact Population and Human Health as a result of the Proposed Development.

13.9.2 Land and Soil

Improper handling and segregation of hazardous or contaminated wastes could lead to the contamination of soil and stones excavated from the site. Potential effects on land and soil are addressed in Chapter 6 of this EIAR.

13.9.3 Hydrology and Hydrogeology

All connections to the public water network (water supply or foul sewer), abstractions from water supply and discharges to the foul sewer during the construction and operational phases will be under consent from Uisce Éireann. Potential effects on water and hydrology are addressed in Chapter 7 of this EIAR.

13.9.4 Climate

The Proposed Development has been designed in accordance with all relevant building design standards. Sustainable power and heat sources have been included as part of the building design to reduce reliance on imported fossil fuels and reduce greenhouse gases (GHG) emissions. Direct and indirect effects of the Proposed Development on climate (for example greenhouse gas emissions) and its vulnerability to climate change are assessed in Chapter 9.

13.9.5 Traffic

The Proposed Development will require the removal of excavated soil and transportation to appropriate waste facilities during the construction phase. It is anticipated that all excavated materials will require removal offsite in accordance with all statutory legislation.

It is estimated by the Main Contractor that the Construction Phase of the Proposed Development will involve the excavation of 184,422m3 of soil for the construction of building foundations, drainage and other infrastructure. It is anticipated that all surplus soil arising from groundworks will require off-site removal for reuse or recovery in accordance with appropriate statutory consents and approvals. (DNV, 2025)

This has the potential to negatively affect the surrounding road network. The removal of all soil from the site will be undertaken in accordance with all applicable statutory legislation and will be the responsibility of the main contractor. Potential effects on traffic are addressed in Chapter 13 of this EIAR.

It is expected that the majority of traffic generated by the Proposed Development will be generated during the operation phase through the general movement of residents of the development. (DNV, 2025)

13.10 Difficulties Encountered When Compiling

No difficulties were encountered in the preparation of this chapter.

13.11 Conclusion

The assessment of likely effects resulting from the Proposed Development on built services and waste in this chapter has identified the existing infrastructure in the surrounding area in relation to surface water, wastewater, water supply, electrical supply, gas supply, telecommunications and waste. Where relevant, appropriate mitigation and monitoring measures have been detailed.

It is reasonably considered that following all mitigation measures including design embedded and prescribed, adequate implementation of the CEMP, RWMP and OWMP and adherence to construction best practice that no significant effects to built services and waste will arise from the Proposed Development during the construction or operational phases. Accordingly, the site is considered suitable for development as proposed.

13.12 References

Construction Environmental Management Plan, DNV, 2025.

Drainage and Water Infrastructure Engineering Report, Roger Mullarkey & Associates, 2025.

Eastern-Midlands Region (EMR) Waste Management Plan 2015-2021.

Energy and Climate Action Statement, BBSC, 2025.

Environmental Protection Agency (EPA) (2022) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports.

ENX (2025) Utility Report.

EPA (2002) Guidelines on the information to be contained in Environmental Impact Statements.

EPA (2019) By-Product Guidance Note: A guide to by-products and submitting a by-product notification under Article 27 of the European Communities (Waste Directive) Regulations 2011 (S.I. No. 126 of 2011).

EPA (2021) Best Practice Guidelines for the Preparation of Resource & Waste Management Plans for Construction & Demolition Projects.

ESB Networks (2019) Construction Standards for MV Substation Buildings.

ESB Networks (2021) National Code of Practice for the Customer Interface Version 5.

European Union (Waste Directive) Regulations 2011-2021.

Health and Safety Authority (2010) Code of Practice for Avoiding Danger from Underground Services.

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