

8 WATER

8.1 INTRODUCTION

This chapter of the EIAR comprises of an assessment of the likely significant effects of the proposed development on the surrounding surface water and hydrogeological environments, as well as identifying proposed mitigation measure to avoid, reduce, remedy or offset any effects.

The assessment must consider the potential for non-conformance with the EU Water Framework Directive (WFD) (Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for the Community action in the field of water policy) objectives and ensure that:

- The need for the avoidance and reduction of impacts on the water environment is taken fully into account in the environmental evaluation; and
- The selection of appropriate means of preventing any significant predicted effect is made through modification of the drainage design, choice of discharge location(s) and/or adoption of runoff treatment methods, with the objective of designing-out potential adverse environmental impacts.

8.2 ASSESSMENT METHODOLOGY

This assessment meets the requirements for an EIAR, as outlined in the relevant National and EU legislation, and has been prepared in accordance with the Environmental Protection Agency (EPA) draft guidance documents '*Guidelines on the Information to be Contained in Environmental Impact Assessment Reports, 2022*'.

The appraisal methodology considered a description of the impact i.e., the "quality" of the effects (i.e., whether it is adverse or beneficial), the "significance" of the effects (i.e., the magnitude of the effect in terms of the environment), the "probability" of the event occurring, and the "duration" of the effects (i.e. whether it is short-term, long-term, etc.) and also considers the significance/sensitivity of the existing environment as required by the EPA EIAR guidance. Assessment of the likely significant effects of the proposed development on the surrounding surface water and hydrogeological environments included the following:

- Site inspection / walkover undertaken within the development lands. No flooding or poor ground conditions observed.
- Review of existing topographic survey information.
- Preliminary ground investigation carried out by IGSL in December 2024.
- Review of utility records obtained from Irish Water records, EIR, and Gas networks maps.
- Review of Planning Applications in the area with the use of the Louth County Council (LCC) Online Planning Applications Service.
- Review of information available on the Environmental Protection Agency (EPA) online mapping service. Use of the 'Water Features' layer to determine the water bodies in the vicinity of the site.
- Review of information available on the Geological Survey of Ireland (GSI) online mapping service. Use of the 'Groundwater Aquifer' and 'Groundwater Vulnerability' layers to determine the groundwater features
- Review of Office of Public Works (OPW) National Flood Hazard Mapping and Catchment Flood Risk Assessment and Management Studies (CFRAM Studies).
- Review of Dundalk Local Area Plan 2024 – 2030.

Surface water runoff calculations were carried out in accordance with the following guidelines:

- Greater Dublin Strategic Drainage Study (GSDSDS)

8.2.1 Impact Assessment Methodology

An analysis of the predicted impacts of the proposed development on the water and hydrology during and after the construction phase, as per Annex IV of Directive 2014/52/EU, EPA Guidance notes (2017) and Appendix C of the IGI EIS Preparation Guidelines (IGII 2013), is presented in the following section.

The impact assessment was undertaken using the following considerations:

- **Quality of an Impact:** Described as being Positive, Neutral or Negative.
- **Significance of an Impact:** The significance of each impact was considered as having either an imperceptible/Not Significant, Slight, Moderate, Significant/Very Significant or Profound Impact.
- **Duration of Impacts:** the duration of each impact was considered to be either brief, temporary, short term, medium-term, long term or a permanent impact. Brief construction impacts are considered to last a day or so, temporary impacts last less than one year. Short-term impacts are seen as impacts lasting one to seven years. Medium-term impacts lasting seven t 15 years. Long-term impacts are impacts lasting 15-60 years and permanent impacts are impacts lasting over 60 years.

8.3 RECEIVING ENVIRONMENT

This section describes the baseline situation of the site at present.

8.3.1 Proposed Development

8.3.1.1 Hydrology

The subject site is within the Castletown River Catchment. The Cunnicar stream is located to the northeast of the subject site and the Castletown stream is located south of the subject site. Both streams are tributaries to the Castletown River. The surface network will be separated into two catchments with the northern catchment discharging to the Cunnicar stream and the southern catchment will outfall to the Castletown stream which both ultimately outfall into the Castletown River.

The Cunnicar and Castletown stream are both Environmental Protection Agency (EPA) designated watercourses. The coast is approximately 5.6 km to the east.

A Topographical Survey was undertaken by ECC in 2025. The key topographical features that define the site are two hills.

The first hill centred around Cú Chulainn's Castle along the sites Eastern boundary, from the crest of the hill at the castle the land slopes away to the North, West and South.

To the north it falls at a gradient of 1:6 till it meets the border of the neighbouring property.

To the West it falls at a gradient of 1:8 for approximately 150m before flattening out to a gradient of 1:80 where it continues to fall until it meets the Cunnicar stream along its western boundary.

To the South it falls at a gradient of 1:3 for approximately 80m before flattening out into a shallow valley between the two hills.

The second hill runs parallel to the sites southern boundary and falls to the North and South, from its crest it falls at a gradient of 1:8 to both the North and South. To the North flattening out into the shallow valley formed with the other hill, and To the South it falls till it meets the Castletown Stream along its southern boundary.

Refer to **Figure 8.1** for existing overland flow routes. The site is part of two surface water catchments as shown in **Figure 8.2** below and ultimately drains to the Castletown River



Figure 8-1 Existing Overland Flow Routes

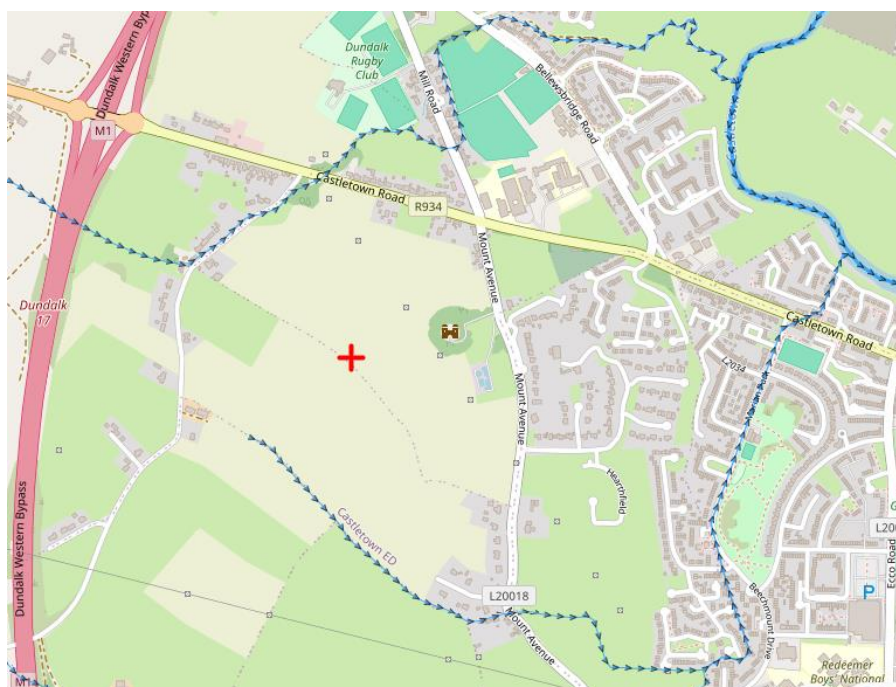


Figure 8-2 Extract from EPA Online Mapping Service

Groundwater

The Geological Survey Ireland (GSI) Online Data service classifies the aquifer at the subject site as “Poor Aquifer – Bedrock which is Generally Unproductive except for Local Zones”.

GSI classifies the groundwater vulnerability at the northwest and southeast corner of the site as having “Rock at or near Surface or Karst” and extreme. The groundwater vulnerability is classified as moderate to high for the rest of the site as illustrated in **Figure 8.3**. Water Vulnerability is a term used to represent the natural ground characteristics that determine the ease with which groundwater may be contaminated by human activities.

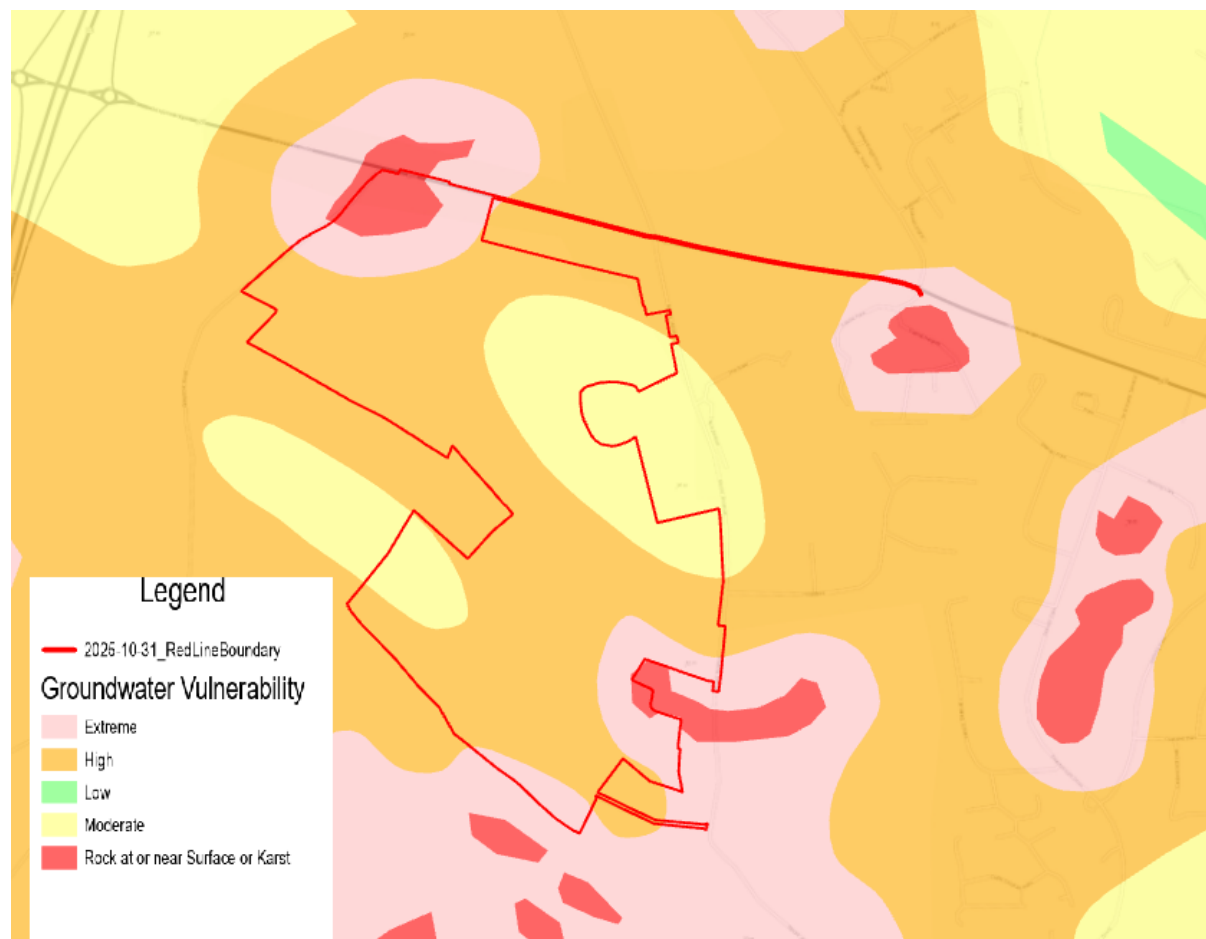


Figure 8-3 Extract from GSI Mapping Service (Groundwater Vulnerability)

Figure 8.4 below shows the existing groundwater aquifer associated with the proposed development. An aquifer is described as underground layer of permeable rock, sediment or soil that yields water. Upon review of the GSI mapping service the aquifer in the proposed site is a Bedrock aquifer which is generally unproductive.

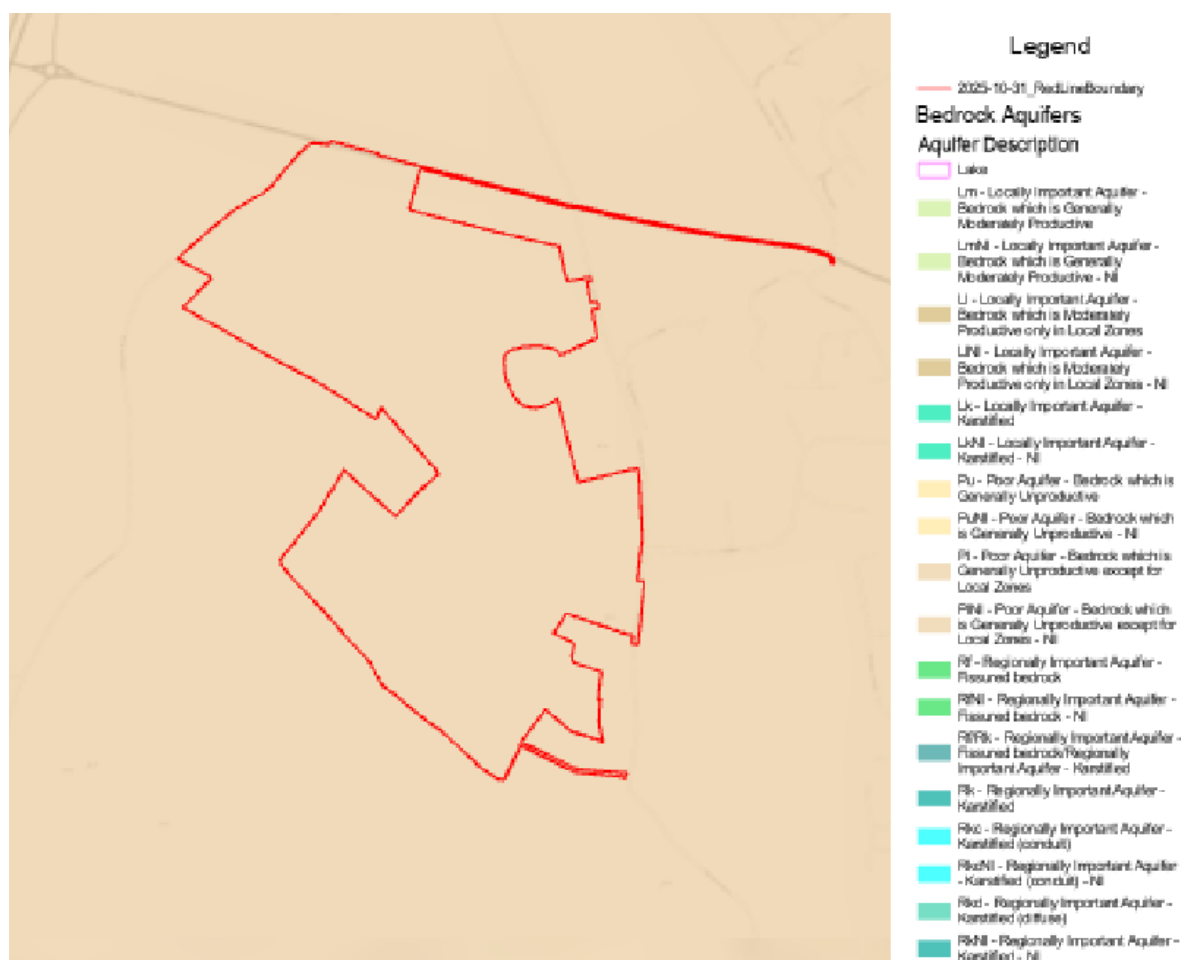


Figure 8-4 Extract from GSI Mapping Service (Groundwater Aquifers)

The site investigation was undertaken by IGSL in June 2025. There Were 86 Trial Pits carried out as part of the site investigation, with pits generally extending to depths of 3.0m. See below details of trial pit description TP37.

Flood Risk

As part of the planning application, DBFL were commissioned to undertake a separate site-specific flood risk assessment (SSFRA) and is included in this EIAR as **Appendix 8.1**. the SSFRA included a review of information from the Office of Public Works (OPW) National Flood Hazard Mapping (www.floods.ie), the Eastern Catchment Flood Risk Assessment and Management (CFRAM) mapping and Louth County Council Development Plan (2024-2030).

The CFRAM fluvial flood extents map, indicate most of the site is located within Flood Zone C apart from a small portion in the southeastern and northwestern parts of the site. These areas in flood zone A/B are designed in open space which is compatible. All finished floor levels throughout the development are set at a minimum 500 mm above this existing flood level.

As of the 15/09/2025 DBFL have received updated flood mapping from Louth County Council. Updated modelling indicated reduced flood levels at the Cunnicar stream located at the northwestern boundary of the site and indicated no flooding at the Castletown stream, located along the southern boundary of the site. Refer to **figure 8-6** indicating updated flood maps from Louth County Council

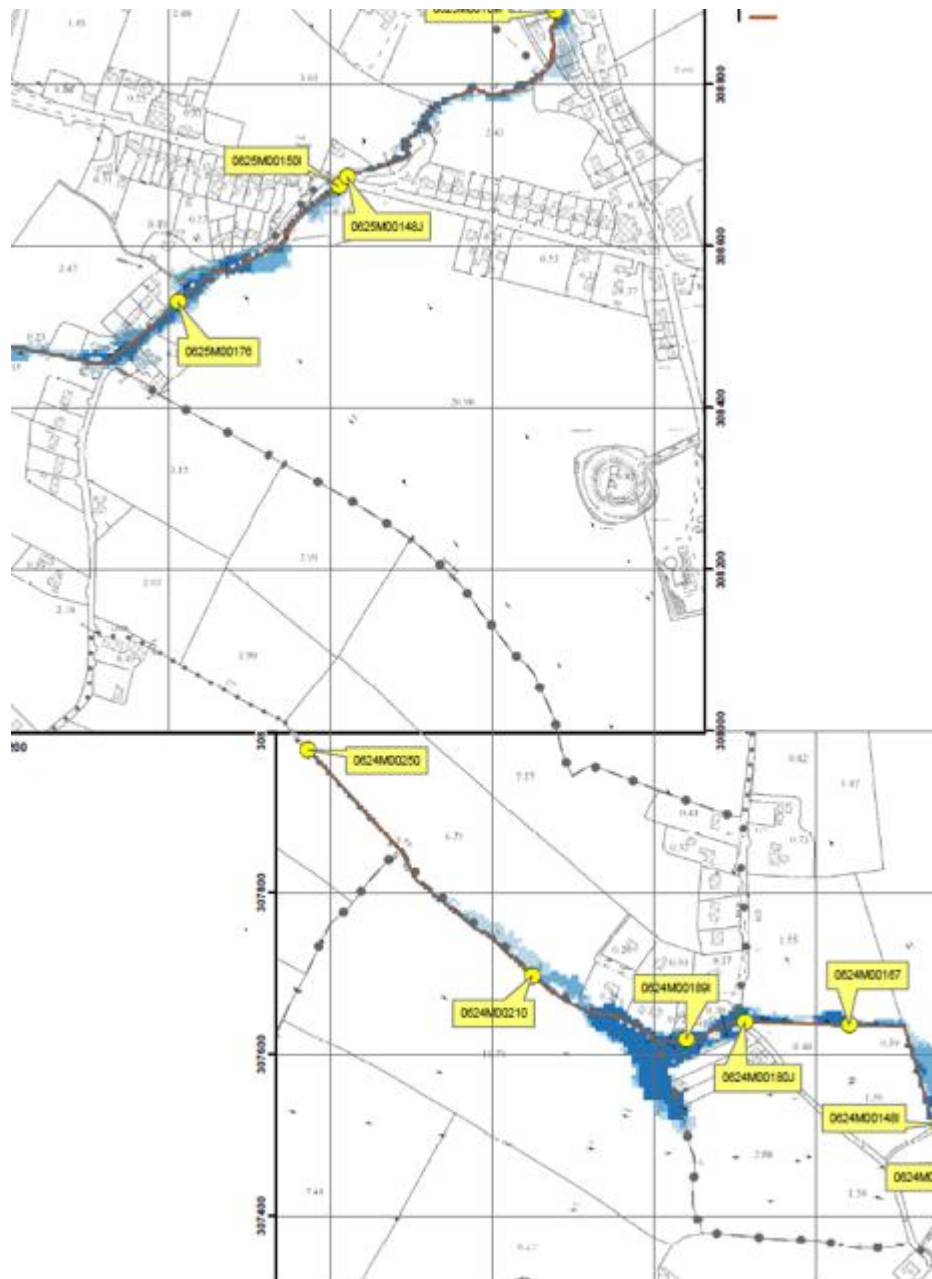


Figure 8-5 Eastern CFRAMS Flood Mapping



Figure 8-6 Updated Louth County Council Flood Maps

8.3.2 Cumulative

Foul

An existing 150mm Concrete combined Sewer extends along a section of the N53 to the North of the site, this line outfalls towards the Boyle O'Reilly Wastewater Pump Station (WWPS) east of the site where it ultimately discharges to the Dundalk Wastewater Treatment Plant.

An existing 300 mm concrete foul sewer which drains towards the Boyle O'Reilly WWPS is located on Mount Avenue Road, southeast of the proposed development.

No significant existing cumulative environmental pressures related to foul and surface water drainage have been identified in the area surrounding the site.

Water Supply

There is an existing 450mm cast iron watermain running Mount Avenue along the sites Eastern boundary, which is ultimately feed from the Cavanhill Water Treatment Plant, there is also a 225mm watermain running parallel to this on Mount Avenue.

There is also an existing 75mm cast iron pipe running along Castletown Road to the North of the sites, and a 100mm uPVC watermain running along the sites northwestern boundary (Greyacre Road).

No significant existing cumulative environmental pressures related to water supply have been identified in the area surrounding the site.

8.4 CHARACTERISTICS OF THE PROPOSED DEVELOPMENT

Refer to Chapter 3 (description of development) for a detailed site and development description. Chapter 8 should be read in conjunction with Chapter 7 (Land, Soils and Geology), Chapter 14 (Material Assets – Traffic & Transport), Chapter 16 (Material Assets – Utilities). The proposed development consists of the construction of 1058 residential units, retail units, community service

units, a creche, and all infrastructure associated with the development including road/streets layout, footpaths, cycle lanes, and all site services including foul drainage networks, surface water and SuDS drainage networks and systems, and watermains.

The proposed surface water drainage network accords with SUDS principles, dividing the site into two drainage catchments, west of Cú Chulainn's castle being one catchment and the south of the castle being the other. It is proposed to outfall the attenuated surface water collected from the development to the existing Cunnicar stream, located along the northwestern boundary, and the Castletown stream, located along the southern boundary. These streams ultimately discharge to the Castletown River to the east of the subject site.

8.4.1 Proposed Development

8.4.1.1 Construction Stage

The proposed surface water drainage infrastructure has been designed in accordance with the GDSDS. Please refer to Chapter 16 (Material Assets – Utilities) for a detailed description of existing services in the vicinity of the site.

The development works will include the attenuation of surface water flows to greenfield runoff rates. The proposed development will be attenuated using vortex flow control devices (Hydrobrake or equivalent) at the outfall, limiting the discharge rate to greenfield runoff rates in accordance with the Greater Dublin Strategic Drainage Strategy (GDSDS). SuDS measures, such as tree pits, rain gardens, permeable paving and detention basins, have been incorporated into the design in accordance with CIRIA SuDS Manual, Nature Based Solutions (NBS) Guidance Document.

In order to adhere to this requirement, the calculated allowable outflow for the whole site has been calculated as 56 L/sec. Discharge from the site is proposed in two locations. The northern catchment is to discharge to the Cunnicar Stream located along the northwestern boundary and the southern catchment is to discharge to the Castletown stream located along the southern boundary. The northern catchment permissible outflow has been limited to 27.0 L/sec and the southern catchment permissible outflow has been limited to 29.0 L/sec.

It has been determined that a total storage provided is a volume of 7906 m³ for the whole development will therefore be required to accommodate for the 100-year storm event (a 20% provision for climate change included), as required by the GDSDS.

The surface water drainage network, attenuation storage, and site levels are designed to accommodate a 100-year storm event (a 20% provision for climate change included). For storms in excess of 100 years, the development has been designed to provide overland flood routes along the various development roads towards the surface water drainage outfalls at the Cunnicar stream and Castletown stream. These overland flood routes also reduce the development's vulnerability to climate change.

Sustainable Drainage Systems (SuDS) will be employed to serve the proposed development, ensuring that only clean attenuated surface water from the development will discharge to both the Cunnicar stream and Castletown stream in accordance with CIRIA SUDS Manual, NBS Guidance document. Discharge will be restricted to greenfield runoff levels via flow control devices. The proposed development layout design is in accordance with the required standards and will attenuate run-off by providing approximately 7906m³ of storm-water storage. Therefore, the design will not cause impacts or increase the risk of flooding elsewhere or in adjacent areas.

The development's drainage design provides a significant volume of above ground attenuation storage for the 1 in 100 years return event and, together with various design mitigation measures, meets the drainage design requirements of the GDSDS. Should extreme pluvial flooding occur that is in excess of the development's drainage capacity then overland flood routes to the drainage outfalls will protect the development and houses with lower flood levels. Refer to **Figure 8.6** below of proposed overland flow routes.

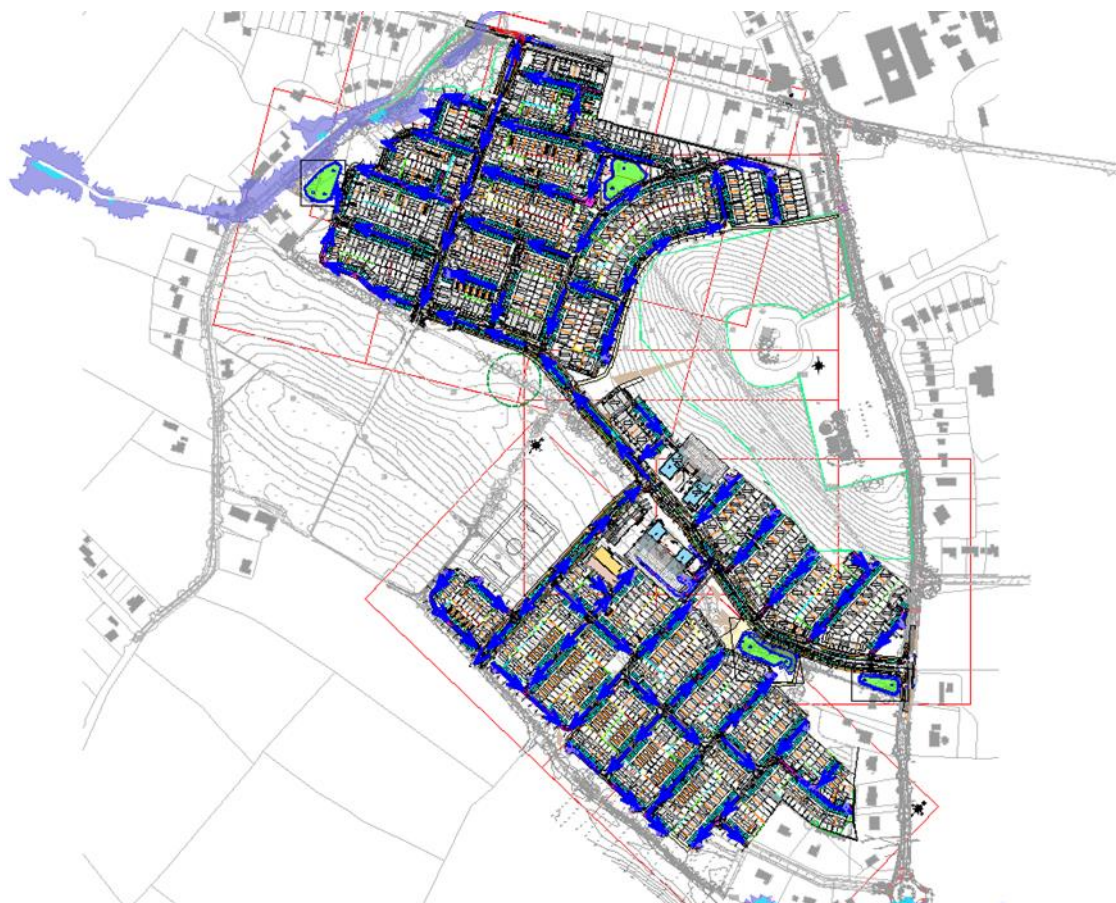


Figure 8-7 Proposed Overland Flow Route

8.4.1.2 Operational Stage

The development's layout and drainage design have been considered within the context of flood risk and mitigation measures have been recommended for the operation and maintenance of the surface water system. Proposed mitigation measures for flood risk include regular maintenance of the proposed drainage system to prevent blockages and overland flow routes are to be provided in the event of any storms exceeding the 1 in 100-year return period event. These, together with provision of attenuated outlets, attenuation storage volume, SuDS drainage features, road levels above expected drainage flood levels have been considered in the development's layout and drainage design. The development will not increase flood risk elsewhere and therefore it is concluded that the requirements of the sequential test as contained in the Planning Flood Risk Management, Guidelines for Planning Authorities are passed for the proposed development layout in the subject site. This is further discussed in the Site-Specific Flood Risk Assessment in **Appendix 8.1**.

8.4.2 Cumulative

Foul

As the lands in the Northern catchment fall away from the proposed discharge point a gravity solution cannot be achieved. As such the foul network for the Northern catchment will comprise of a collection network made up of a series of 150mm and 225mm foul lines falling by gravity towards a foul pumping station (FPS) which will be located along the sites North-Western boundary. From there a rising main will pump the Foul sewage to a discharge manhole before then draining by gravity into the existing Uisce Éireann Network at Castletown Cross Road.

The Southern catchment will utilise a gravity foul drainage network, comprising of a series of 150mm, 225mm and 300mm diameter lines discharging towards the existing 300mm concrete foul Sewer located off the roundabout on Mount Avenue Road.

Cumulative considerations include interactions between the proposed surface water management infrastructure (SuDS, attenuation, flow control devices) and existing hydrological and drainage systems.

Water supply

The proposed water main layout within the development comprises of a 300mm central spine watermain, serving the northern catchment, connects to the existing Uisce Éireann 450mm watermain Mount Avenue Road and ending in a spur for future connections along the main arterial street road. A 200mm branch will serve the southern catchment and loops back down to the existing watermain on Mount Avenue Road also. From this main loop there are a series of 100mm, 150mm, diameter pipes provided within the development to distribute water across the southern section of the development.

8.5 POTENTIAL IMPACT OF THE PROPOSED DEVELOPMENT

8.5.1 Proposed Development

8.5.1.1 Construction Stage

The potential significant effects for the construction phase of the proposed development are noted below:

- Surface water runoff may contain increased silt levels (e.g. runoff across areas stripped of topsoil) or become polluted by construction activities (Run off from vehicles, cement, oil spills etc).
- Discharge of rainwater pumped from excavations containing increase levels of silt, oil, cement, etc.
- Accidental spills and leaks associated with storage of oils and fuels, leaks from construction machinery and spillage during refuelling and maintenance contaminating the surrounding surface water and hydrogeological environments.
- Concrete runoff, particularly discharge of wash water from concrete trucks.
- Discharge of vehicle wheel wash water containing high silt levels, oil and fuels, cement (potential impact on existing hydrology e.g. discharge to existing surface water drainage infrastructure).
- Discharge of foul water drainage from contractor's compound (impact on existing hydrology e.g. cross-contamination of existing surface water drainage).
- Infiltration of groundwater into excavations.
- Cross-contamination of temporary potable water supply to construction compound.

Without the consideration of mitigation measures the construction phase of the proposed development will likely have a neutral, short term, moderate impact

8.5.1.2 Operational Stage

Potential significant Operational Phase effects are noted below:

- Increased impermeable surface area will reduce local groundwater recharge rate.
- Increased impermeable surface area will potentially increase surface water runoff rate (if not attenuated to greenfield run-off rate).
- Accidental hydrocarbon leaks and subsequent discharge into piped surface water drainage network (e.g., along roads and in driveway areas).

As noted, surface water outflow from the site ultimately discharges to the Castletown River. If surface water is not adequately treated and managed in accordance with the GSDS it has the potential to impact aquatic life and human health.

Surface water drainage for the development has been designed in accordance with the GSDS therefore the risk to human health has been mitigated.

These impacts are likely and are expected to be slight, permanent and have a neutral effect on the environment.

Potential Risks to Human Health

There is a risk to human health from contamination of the potable water supply from surface water or ground water. The ground water and supply network would present possible pathways such as damaged or incorrectly installed pipes. The risks are considered below.

Groundwater Supply

Considering the low infiltration rates obtained as part of the preliminary site investigation undertaken by Ground Investigations Ireland, the risk to the contamination of ground water from surface water run-off from the development is considered for each development phase. During the construction phase the impact is considered to be a moderate, neutral short-term effect. During the operational phase, the impact is considered to be a moderate, neutral permanent effect.

8.5.1.3 Do-Nothing Impact

There are no predicted impacts should the proposed development not proceed.

8.5.2 Cumulative

8.5.2.1 Construction Stage

Foul

As per the Confirmation Of Feasibility (COF) received from Uisce Éireann on the 11th of February 2025 and is included in **Appendix 8.2**, connection to the existing foul infrastructure is feasible but subject to upgrades. In summary the COF states, approximately 670m of new 375mm sewer is to be laid.

Water Supply

As per the Confirmation Of Feasibility (COF) received from Uisce Éireann on the 11th of February 2025 and is included in **Appendix 8.2**, connection to the existing foul infrastructure is feasible but subject to upgrades. In summary the COF states, capacity exists on the existing 450mm main on Mount Avenue and on-site booster pump to be installed on site.

8.5.2.2 Operational Stage

Foul

No potential cumulative impacts are anticipated in relation to foul drainage. The foul drainage has been designed in accordance with the requirements of Uisce Éireann's codes of practice.

Water Supply

Potable Water Network Supply

The water supply network will not become operational until after construction of the road network. Therefore, there is no risk of contamination at this stage. The potable water supply will be delivered in new pipework infrastructure in accordance with Uisce Éireann's specification. Therefore, the risk to human health through the water supply network from the road in operation will be very low. The installation of new water supply network will also provide a positive effect to human health in the

surrounding areas by way of a controlled network. The overall impact is considered to be a positive, long term, and moderate.

8.5.2.3 Do-Nothing Impact

There are no predicted impacts should the proposed development not proceed.

8.6 MITIGATION MEASURES (AMELIORATIVE, REMEDIAL OR REDUCTIVE MEASURES)

8.6.1 Proposed Development

8.6.1.1 Construction Stage

- A Construction and Environmental Management Plan (CEMP) will be submitted prior to works commencing on site and the approved CEMP will be implemented by the contractor during the construction phase. Site inductions will include reference to the procedures and best practice as given in the CEMP.
- All water pumped from excavations will be directed to on-site settlement ponds for treatment to reduce pollution to acceptable levels before being discharged to the local environment at a controlled rate.
- Surface water runoff from areas stripped of topsoil, from the construction compound, and from access tracks will be directed to on-site settlement ponds for treatment to reduce pollution to acceptable levels before being discharged to the local environment at a controlled rate.
- Weather conditions and seasonal weather variations will be taken into account when planning stripping of topsoil and excavations, with an objective of minimizing soil erosion and silt run-off. Short term weather forecasts will also be taken into account.
- In order to mitigate against spillages contaminating the surrounding surface water and hydrogeological environments, all oils, fuels, paints and other chemicals shall be stored in a secure bunded hardstand area in the construction compound. Refuelling and servicing of construction machinery will take place in a designated hardstand area which will be remote from any surface water inlets and outlets (where it is not possible to carry out such activities off site). Hydrocarbon spill kits will be available and to hand for refuelling crews in the event of any spills.
- Concrete batching will take place off site and wash out of concrete chutes will take place at designated locations in the site and the washout of truck drums will take place after back at the batching plant to minimise pollution release within the subject site.
- Discharge from any vehicle wheel wash areas will be directed to on-site settlement ponds for treatment prior to discharge to the local environment.
- Groundwater pumped from excavations is to be directed to on-site settlement ponds for treatment prior to discharge to the local environment.

• Character of potential impact	Mitigation Measure
Construction Phase	
Increased silt levels in surface water runoff and rainwater pumped from excavations	Extent of topsoil strip (and consequent exposure of subsoil) will be limited to the immediate vicinity of active work areas. Weather conditions will also be taken account of when planning stripping of topsoil and excavations with an objective of minimizing soil erosion.
Accidental spills and leaks	Response procedure will be put in place to deal with any accidental pollution events
Discharge of wash water from concrete trucks	Concrete batching and wash down / wash out of concrete trucks will take place off site.

Improper discharge of foul drainage from contractor's compound	Foul drainage discharge from the construction compound will be tankered off site to a licensed facility until a connection to the public foul drainage network has been established
Cross contamination of potable water supply to construction compound	The contractor shall obtain a temporary connection from the existing water supply network along Trim Road in accordance with Irish water requirements for same

Table 8.6-1: Mitigation Measures at Construction Phase

8.6.1.2 Operational Stage

The design of proposed site levels (roads, etc.) was completed to replicate existing surface contours, break lines etc., therefore replicating existing overland surface water flow paths, to minimise changes to the site characteristics and not concentrating water run-off in any particular location(s).

Surface water runoff from the site will be attenuated to the existing greenfield runoff rate as outlined in the Greater Dublin Strategic Drainage Study (GSDSDS). Surface water discharge rates will be controlled by Hydrobrake type vortex flow control devices, located at all attenuation areas, in conjunction with attenuation storage in all locations.

The design of the proposed development incorporates the following SuDS surface water treatment train solutions, and these SuDS features will need ongoing maintenance in line with what is recommended in the CIRIA SuDS manual.:

- Permeable paving in driveway areas.
- Surface water runoff from roofs will be routed to the proposed surface water pipe network via the porous aggregates beneath permeable paved driveways.
- Surface water runoff from roads, where allowable, will drain to swales for treatment and runoff reduction.
- Attenuation of the 100-year return event storms with a 20% allowance for climate change.
- Installation of flow control devices (Hydrobrake or similar) limiting surface water discharge from the site to greenfield runoff rates at the outfalls to the Cunnigar stream and Broad and Castletown stream.
- Surface water discharge to pass via Class 1 fuel / oil separator (sized in accordance with permitted discharge from the site).
- Non-Return Valve fitted at outlet locations to prevent any water from both streams draining back into the systems.

Character of potential impact	Mitigation Measure
Operational Phase	
Contamination of sensitive receptors during operational phase due to surface water network.	The proposed surface water drainage infrastructure has been designed in accordance with the relevant guidelines i.e., Greater Dublin Strategic Drainage Study (GSDSDS) and OPW Flood Risk Assessment Guidelines. Any other future development in the vicinity of the site would have to be similarly designed in relation to permitted surface water discharge, surface water attenuation and SuDS
Risk of localised flooding	Proposed drainage system to be maintained on a regular basis to reduce the risk of a blockage. Overland flow routes directed towards open space areas in the event of exceedance.
Failure of SuDS features	Regular maintenance of SuDS features in line with recommendation from the CIRIA SuDS manual to reduce the risk of flooding within the development.

Table 8.6-2: Mitigation Measures at Operational Phase

8.6.2 Cumulative

No cumulative impacts are anticipated in relation to foul drainage and water supply in the construction and operations phases. The water and wastewater networks for the proposed development have been designed in accordance with the requirements of Uisce Éireann's codes of practice.

8.7 RESIDUAL IMPACT OF THE PROPOSED DEVELOPMENT

8.7.1 Proposed Development

8.7.1.1 Construction Stage

Implementation of mitigation measures specified in Section 8.6 will ensure that the potential effects of the proposed development on water and the hydrogeological environment do not occur during the construction phase and that any residual effects will be slight, short-term and have a neutral impact on the environment.

8.7.1.2 Operational Stage

As the surface water drainage design has been carried out in accordance with the GSDS, and SuDS methodologies will be implemented as part of a treatment train approach, the predicted residual impacts on the water and hydrogeological environment arising from the operational phase are expected to be slight, long term and have a neutral effect on the development.

8.7.1.3 Worst Case Impact

The following unplanned events could potentially give rise to impact on the receiving water and hydrology:

- Flooding of the road network, preventing access by emergency services to all parts of the proposed development.
- Should the above event occur, it would be considered significant brief or short term and have a negative effect on the site. However, if the mitigation measures outlined in section 8.6 are adhered to then these issues will not likely occur.
- The attenuation areas for the site are designed to accommodate flood events up to 1% (100 year) AEP (Annual Exceedance Probability) with an additional 20% allowance for climate change. In events above this risk level, the surface water network is designed to provide overland flood routes along the various development roads towards the surface water drainage outfall therefore mitigating the risk.

8.7.2 Cumulative

No cumulative impacts are anticipated in relation to foul drainage and water supply in the construction and operations phases. The water and wastewater networks for the proposed development have been designed in accordance with the requirements of Uisce Éireann's codes of practice.

8.7.2.1 Worst Case Impact

The following unplanned events could potentially give rise to impact on the wastewater network and water supply:

- Blockage of wastewater infrastructure could potentially lead to localised flooding, contamination, and public health hazards.

- Potential failure to the water supply network resulting in a disruption to availability to potable water for residents and emergency services within the development.

8.8 MONITORING

8.8.1 Proposed Development

8.8.1.1 Construction Stage

Proposed monitoring in relation to the water and hydrogeological environment are as follows:

- Inspection and maintenance of fuel / oil separators.
- Inspection and maintenance of the internal road network for wear and tear that could cause silt release.
- Inspection and maintenance of attenuation and hydrobrake infrastructure.
- Regular maintenance of SuDS features in line with recommendations from the CIRIA SuDS manual.

8.8.1.2 Operational Stage

During the operational phase, an inspection and maintenance contract is to be implemented in relation to the proposed Class 1 fuel / oil separators, hydrobrakes and attenuation facilities.

8.8.2 Cumulative

8.8.2.1 Construction Stage

Inspection of temporary pumping and storage for wastewater to ensure no overflow, leakage, or unauthorised discharge occurs.

8.8.2.2 Operational Stage

Regular maintenance of on-site wastewater sewers, including rodding access points to minimise blockages.

8.9 REINSTATEMENT

No reinstatement requirements have been identified in relation to the construction or operational phase of the proposed development.

8.10 DIFFICULTIES ENCOUNTERED

There was no material difficulties encountered in compiling and assessing the data for this EIAR chapter.