The Tecpro Building,
Clonshaugh Business & Technology Park,
Dublin 17, Ireland.

T: + 353 1 847 4220
F: + 353 1 847 4257
E: info@awnconsulting.com
W: www.awnconsulting.com

# Attachment-7-1-3-2

# Surface Water and Ground Emissions Impact Assessment

Report Prepared For

**Amazon Data Services Ireland Limited**

Report Prepared By

**Conor McKeon,**
Environmental Consultant

Our Reference

CMK/217501/1055WR01Rev1

Date of Issue

23 June 2025

**Cork Office**
Unit 5, ATS Building,
Carrigaline Industrial Estate,
Carrigaline, Co. Cork.
T: + 353 21 438 7400
F: + 353 21 483 4606

AWN Consulting Limited
Registered in Ireland No. 319812
Directors: F Callaghan, C Dilworth,
T Donnelly, T Hayes, D Kelly, E Porter

## Document History

| Document Reference | | Original Issue Date | |
|---|---|---|---|
| CMK/217501/1055WR01Rev1 | | 14 June 2024 | |
| Revision Level | Revision Date | Description | Sections Affected |
| Rev.1 | 23 June 2025 | Updated in response to EPA RFI, dated 28.05.25 | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## Record of Approval

| Details | Written by | Approved by |
|---|---|---|
| Signature |  |  |
| Name | Conor McKeon | Jonathan Gauntlett |
| Title | Senior Environmental Consultant | Principle Environmental Consultant |
| Date | 23 June 2025 | 23 June 2025 |

**CONTENTS** **Page**

## 1.0 INTRODUCTION

This report presents the assessment of emissions from the Site to water and ground as a result of the operation of the data storage facilities to support the Industrial Emissions Licence Review Application. Due to the interrelationships between these aspects a combined single impact assessment report has been prepared. Additionally, for this same reason the wider impacts of emissions to surface water and foul sewer have also been discussed herein.

This report was completed in a format consistent with the *Environmental Protection Agency's (EPA) Licence Application Form Guidance – Industrial Emissions (IE), Integrated Pollution Control (IPC) and Waste (EPA, 2018).*

The Application Form Guidance states that: *The expectation is for the 'receiving environment report' to be separate from the 'emissions impact assessment' but they are interrelated. Information may be combined in the 'impact assessment report', where it is logical to do so. In this case the reason for combining the reports should be clearly stated in the submitted report.*

Due to the nature of the localised impacts of the Installation and the completion of baseline assessment and separate modelling reports for emissions (air and noise), it is logical to combine the receiving environment report' and 'emissions impact assessment' into one report.

The emission to storm sewer consists of storm water runoff from building roofs, yards and the road network. Residual cooling water, associated with the evaporative cooling process (clean water applied for cooling), is also discharged from the cooling systems to the storm sewer. There are no additives to the water during the cooling process.

The storm water and cooling water from the existing Installation is discharged at 2 no emission points. SW1 discharges to a 450mm IDA Park storm sewer which is located to the south of the existing Installation and SW2 connects to a 900 mm diameter IDA Park storm sewer, which is located to the east of the existing Installation that flows north to south.

The storm water and cooling water from the extended Installation is discharged at 1 no emission point. SW3 discharges to a 900 mm diameter IDA Park storm sewer, which is located to the west of the extended Installation that flows north to south.

The storm water and cooling water passes through Hydrocarbon Interceptors on site to ensure that the quality of the storm water discharge is controlled. This network is shown on Drawing 21_123F-00-XX-DR-C-1100 Surface Water Layout Plan. The IDA Park storm sewer(s) outfall to the Santry River, located to the south of the Site; the Santry River flows c. 5.15 river km east, to the North Bull Island transitional water body, and ultimately the Dublin Bay.

Further detail on the storm water network and emissions is set out in Attachment-4-8-1-Operational Report.

Domestic effluent arising from occupation of the existing and extended Installation and storm water from the fuel tank storage areas and associated unloading bays, and the transformer compound for the existing Installation, is discharged to the IDA Park foul sewer (at Emission Points SE1 through SE5). The foul network ultimately coveys the wastewater for final treatment and disposal at Ringsend Wastewater Treatment Plant (WWTP) in Dublin.

Further detail on the storm and foul water network and emissions is set out in Attachment 4-8-1 Operational Report.

The main substance of concern in respect of impacts on ground or surface water bodies is hydrocarbons from car park run-off or the unlikely event of an overspill from refilling the emergency generator tanks.

## 2.0 ASSESSMENT OF STORM WATER EMISSIONS

### 2.1 METHODOLOGY

This assessment of the storm water emissions looks at the potential impact on the surface water environment. It includes a review of both the known storm water emissions from the site as well as potential emissions through spills, accidents etc.

The existing surface water environment is described in terms of water quality with reference to environmental quality objectives and standards and any objectives and standards laid down for protected areas. This is followed by a summary and an assessment into the impacts of any existing or proposed emissions on the environment, including environmental media other than those into which the emissions are to be made.

This assessment has been prepared from both a desktop review of existing information, and a site specific investigation. The following is a list of sources of information consulted for use in this section:

- Ordnance Survey Ireland - aerial photographs and historical mapping;
- Environmental Protection Agency (EPA) – website mapping and database information;
- Environmental Protection Agency (EPA) – www.epa.ie on-line mapping and database information;
- Project C-Unit AF1, Clonshaugh Business and Technology Park, Dublin 17. Due Diligence Report, ADSIL 24th November 2010
- Site 1 Cahill Printers Facility Due Diligence Report ADSIL, 22nd February 2013.
- Site 2 Acco Rexel Facility Due Diligence Report, ADSIL, 22nd February 2013.
- Environmental Audit (Phase 1 – Historical Review and Site Walkover) for Clifton Scannell Emerson Associates by AWN ref TH/12/6520 7th February 2013
- Complete Baseline Report 2024 IED Licence Review Application, ADSIL, AWN Consulting.
- Site Investigation Report. DUB090 Data Centre & Ski Lodge Clonshaugh, Dublin 17. Site Investigations Ltd, September 2021;
- Due Diligence Report DUB090 - JCD Clonshaugh. ARUP, January 2021;
- Environmental Assessment Report. Clonshaugh Business Park. Ground Investigations Ireland, February 2020;
- Engineering Planning Report - Drainage & Water Services. Proposed Data Centre Development Clonshaugh Business and Technology Park. Clifton Scannell Emerson Associates, October 2021;
- Flood Risk Assessment. Data Centre Development Clonshaugh Business and Technology Park. Clifton Scannell Emerson Associates, September 2021.

## 2.2 RECEIVING ENVIRONMENT

The existing surface water environment in terms of water quality with reference to environmental quality objectives and standards and any objectives and standards laid down for protected areas is described in Section 7.3 of the Baseline Report (Attachment 4-8-3).

The Site is within the catchment of the Santry River which runs approximately 50m south of the site flowing in an easterly direction toward North Dublin Bay.

There are no streams on the site itself or along its boundaries. Storm water run-off is collected and discharged to the IDA Park storm sewer which eventually discharges to the Santry River to the south.

There is one water quality monitoring station located on the Santry River downstream of the proposed site which has quality ratings available within the last ten years. This monitoring location (Clonshaugh Road Bridge RS09S010300) obtained a Q rating of 2-3 - Poor Status (in 2022). There is also a station downstream on the River Mayne at the Hole-in-the-Wall Bridge (RS09M030500). This also obtained a Q rating of 2-3 (in 2022) which also denotes a "poor" rating for the same period.

Currently, the EPA classifies the WFD Ecological Status for the Santry River as having '*Poor Status'* (Cycle Status 2016 - 2021) with a current WFD River Waterbody risk of '*At risk of not achieving good status' for both rivers'.*

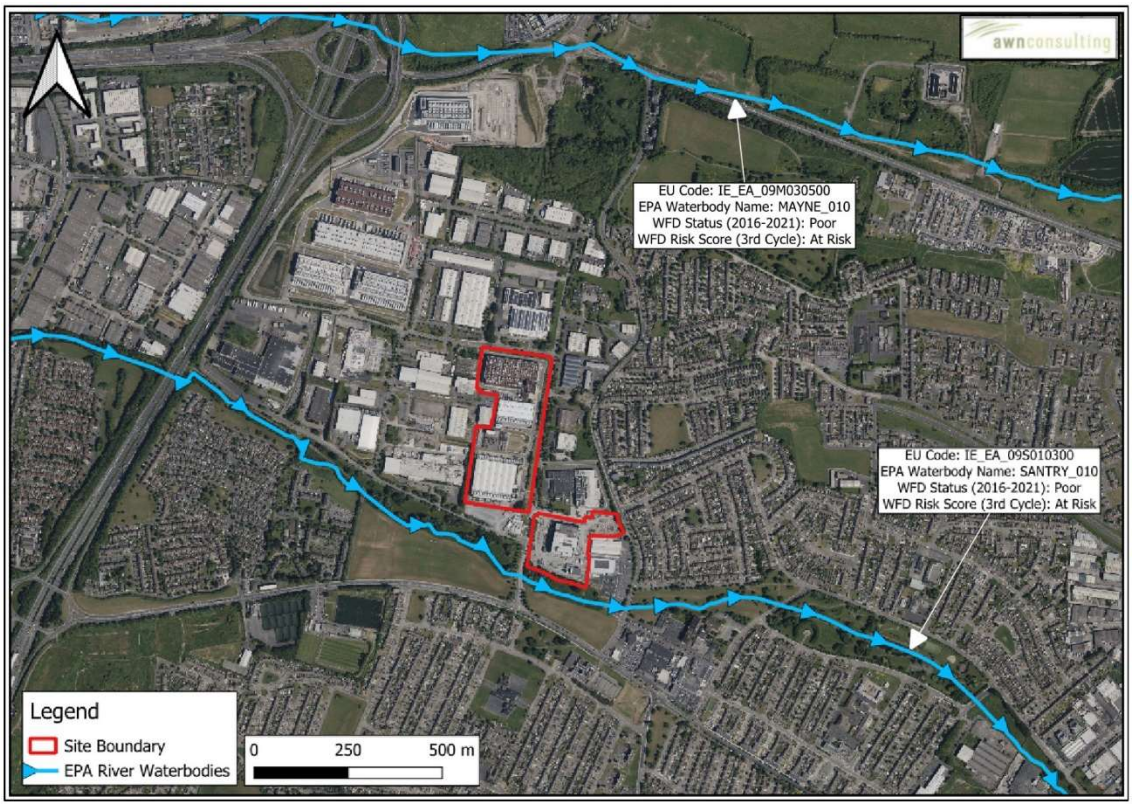


*Figure 2.1 Hydrological Environment, illustrating the Santry River flowing in an easterly direction and classified as 'at risk of not achieving good status'.*

### 2.2.1 Sensitive areas or areas of special interest

An Appropriate Assessment (AA) Screening Report (Attachment 6-3-4) has been prepared by Moore Group and has been submitted with the licence review application. Figure 2.2 below presents the Site in relation to nearby European sites.

This analysis found that the nearest European sites (linear distance) to the Project are the Dublin Bay sites, with the nearest being South Dublin Bay and River Tolka Estuary SPA (Site Code: 004024) situated c. 3.9km to the south. Other sites with potential hydrological connectivity to the Project are the North Dublin Bay SAC (Site Code: 000206) and North Bull Island SPA (Site Code: 004006); these are located over 4 km to the east of the Project and indirectly linked via storm water discharge to the Santry River.

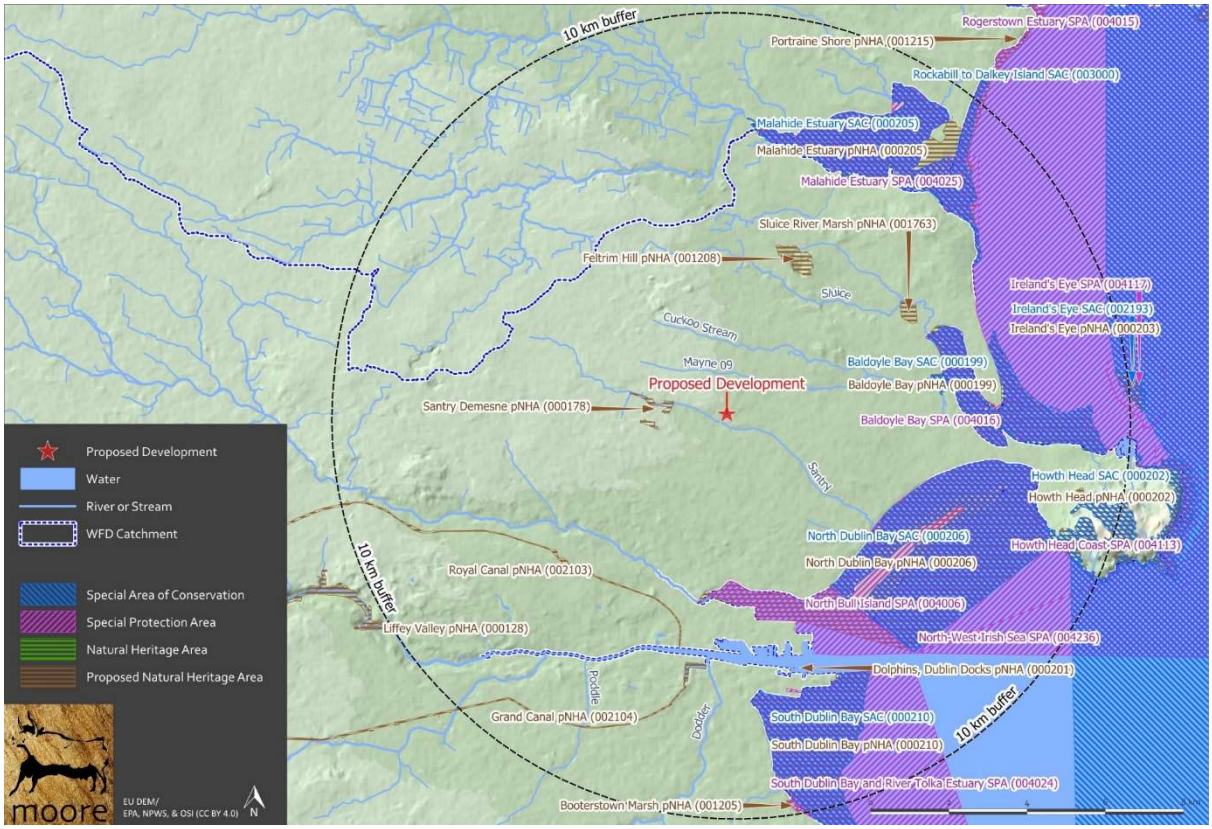


*Figure 2.2 Site Location, Showing European sites and NHAs/pNHAs in the vicinity of the Project*

The lands in which the Installation is located have no formal designations.

The AA Screening Reports concluded that:

*There are no predicted effects on any European sites given:*

- *The distance and lack of direct hydrological connectivity between the Project site and any European Sites;*
- *There are no predicted emissions to air, water or the environment during the operational phase that would result in significant effects.*

*It has been objectively concluded by Moore Group Environmental Services that:*

1. *The Project is not directly connected with, or necessary to the conservation management of the European sites considered in this assessment.*
2. *The Project is not likely to either directly or indirectly significantly affect the Qualifying interests or Conservation Objectives of the European sites considered in this assessment.*
3. *The Project, either alone or in combination with other plans or projects, is not likely to have significant effects on a European site.*
4. *It is possible to conclude that significant effects can be excluded at the screening stage.*

*It can be excluded, on the basis of objective information, that the Project, individually or in combination with other plans or projects, will have a significant effect on any European site, in the absence of any mitigation.*

## 2.3 EMISSIONS TO SURFACE WATER AND ABATEMENT MEASURES

Details of the proposed storm water drainage are presented in Attachment 4.8.1 (Operational Report). Any accidental emissions of oil or fuel could cause contamination to storm water if the emissions enter the water environment unmitigated.

The primary potential impact relates to a failure or accidental spill of fuel oil which is stored and used on site for the emergency backup generators. Fuel oil is stored in multiple locations across the Site:

Existing Installation:

- Bulk Fuel Oil Storage
  - 3 no. 52,000 litre (Building W) fuel storage tanks
  - 5 no. 54,000 litre (Building X ,Y) fuel storage tanks
- Emergency Back-up Generator Fuel
  - 13 no. day tanks (Building W), each 2,500 litres
  - 20 no. day tanks (Building X), each 2,500 litres
  - 7 no. day tanks (Building Y), each 2,500 litres
- Fire Sprinkler Pump Fuel
- 3 no. tanks each 1,000 litres (located between Building W and Y)
  - 3 no. tanks each 1,000 litres (located at Building W)

Extended Installation:

- Top Up Fuel Oil Storage
  - 1 no. 40,000 litre (Building U, V) fuel storage tank
- Emergency Back-up Generator Fuel
  - 10 no. belly tanks (Building U), each 16,000 litres
  - 1 no. belly tank (Building U), 4,700 litres
  - 1 no. belly tank (Building V), 8,500 litres
  - 1 no. day tank (Building V), 1,000 litres
- Fire Sprinkler Pump Fuel
  - 2 no. tanks, each 450 litres (Building U, V)
  - 1 no. tank, 900 litres (Building U, V)

Fuel pipelines above ground are Carbon Steel, and below ground are Close Fit PLX (dual-contained pipe system).

The total combined fuel tank capacity is 748,250 litres (748.25 $m^3$), however as per standard ADSIL policy, tanks are filled to 90% capacity (max.), i.e. 673,425 litres

(673.43 $m^3$). It should be noted that the tanks cannot be filled more than 90% as an alarm will be activated and the system would automatically shut-off.

In a worst case scenario, the fuel tanks will contain only diesel (i.e. 579.15 tonnes) and no HVO (0 tonnes), in the best case scenario, the fuel tanks will contain only HVO (i.e. 569.72 tonnes) and no diesel (0 tonnes). In reality, the ratio of diesel to HVO will vary and the amount of HVO and diesel will vary between these 2 scenarios.

In order to minimise any impact on surface water environment from material spillages, the fuel storage tanks are located above ground and there is full containment. All containers are designed to be suitable for the chemicals stored within and in accordance with the EPA's guidelines for the storage and transfer of materials for scheduled activities (EPA, 2004). The design of all bunds conforms to standard bunding specifications - BS EN 1992-3:2006 *Eurocode 2 - Design of concrete structures - Part 3: Liquid retaining and containment structures*. The Operational Report (Attachment 4.8.1) outlines the fuel storage systems in detail.

A standard operating procedure for fuel unloading is in place at the Site to reduce the risk of spills. An on-site Emergency Response Plan (ERP) is in place. The Site maintains spill kits at all storage areas.

The storm water from the existing Installation is discharged at 2 no emission points. SW1 discharges to a 450mm IDA Park storm sewer which is located to the south of the existing Installation and SW2 connects to a 900 mm diameter IDA Park storm sewer, which is located to the east of the existing Installation that flows north to south.

The storm water from the extended Installation is discharged at 1 no emission point. SW3 discharges to a 900 mm diameter IDA Park storm sewer, which is located to the east of the existing Installation that flows north to south. The IDA Park storm sewer(s) outfall to the Santry River, located to the south of the Site; the Santry River flows 5.15 river km east, to the North Bull Island transitional water body, and ultimately the Dublin Bay.

The storm water passes through hydrocarbon interceptors on site to ensure that the quality of the storm water discharge is controlled. This network is shown on Drawing 21_123F-00-XX-DR-C-1100 Surface Water Layout Plan.

All hydrocarbon interceptors have high level liquid sensors, which indicates when the liquid level in the oil interceptor rises excessively and triggers an alarm, and oil level detection systems, which detects the oil level based on conductivity and triggers an alarm as set out in Attachment-4-8-1.The hydrocarbon interceptors will prevent discharge of oils/fuels which may potentially be present in storm water run-off from heavily trafficked areas, delivery zones, dock levellers and turning areas.

There are 3 no. Attenuation systems (referred to as stormtech systems) located on site that are designed to attenuate waters from the built areas:

<u>Existing Installation</u>

- Attenuation stormtech system no. 1 (170 $m^3$ capacity) is located to the south of Building W and is an offline attenuation storm cell. Storm water from Building W and the Newbury Substation is discharged at emission point SW1, which connects to the existing 450 mm IDA Park storm sewer located to the south of the existing Installation and subsequently to the Santry River.

- Attenuation stormtech system no 2 (1,351 $m^3$ capacity) is located to the south of Building Y. From there, the storm water is discharged at emission point SW2 which connects to the existing 900 mm IDA Park storm sewer located to the east of the existing Installation that flows north to south, and subsequently to the Santry River.

Extended Installation

- Attenuation stormtech system no 3 (800 $m^3$ capacity) at the north east corner of the extended part of the site, close to Building U. From there, the storm water is discharged at emission point SW3, which connects to the 900mm diameter storm sewer running north to south beneath the entrance road to the IDA Park and subsequently to the Santry River.

There are storm water flow control devices on the storm water drainage system to reduce to the maximum permissible flow rate designed to have minimal impact on the hydrology of the surface water network.

Trapped gullies are utilised in all storm water systems in the roads, turning bays and car park infrastructure so that sediment pollution to the local watercourses is minimised.

In accordance with BAT, clean storm water will be kept separate from contaminated wastewater (foul water) and there will be no inherent risk of cross-contamination.

The only chemical stored onsite in bulk quantities, that is hazardous to the environment, is fuel oil (diesel and HVO are used on site). The storm water drainage network has interceptors installed. All hydrocarbon interceptors for the extended Installation have:

- high level liquid sensors, which indicates when the liquid level in the hydrocarbon interceptor rises excessively and triggers an alarm: and
- oil level detection systems, which detects the oil level based on conductivity and triggers an alarm.

Due to the nature of the run-off, (storm water from buildings and cooling water) and the inclusion of hydrocarbon interceptors at key locations, the proposed discharge is unlikely to contain more than trace hydrocarbons and metals. Therefore, it is considered that the emission of storm water will not contain significant quantities of Principal Polluting Substances *Environmental Protection Agency (Licensing) (Amendment) Regulations 2004 or* Priority Substances or Priority Hazardous Substances of the *EC Environmental Objectives (Surface Waters) Regulations 2009, S.I. No. 272 of 2009*.

Potentially polluted water that reaches the stormtech system in an abnormal event, (for example, in the case of a fire) shall be tested before release to the receiving storm water sewer system. Any storm water of unacceptable quality will be pumped out or otherwise removed from the attenuation stormtech system(s) and disposed of appropriately.

## 2.4 SURFACE WATER IMPACT ASSESSMENT

The installation will not have a noticeable impact on the surface water of the receiving environment. There is no direct discharge from the site to the Santry River; there is,

however, an indirect discharge of storm water via the storm water drain within the IDA Park, which subsequently discharges to the Santry River. A flow control system (hydrobrake) on stormtech system(s) is in place to achieve the required discharge rate to the storm water drain.

There is a negligible risk of Principle Pollution Substances, Priority Substances or Priority Hazardous Substances (main polluting substances (as defined in the Schedule of EPA (Licensing)(Amendment) Regulations 2004, S.I. No. 394 of 2004) being discharged from the installation above the limits outlined in the Surface Waters Regulations (S.I. No. 272 of 2009 and amendments) via the storm water network due to the controls and procedures in place to prevent and minimise spills and the presence of interceptors within the storm water infrastructure at key locations. Mitigation measures in place to prevent and minimise spills have been implemented as shown in Attachment 4-8-1.

Based on this assessment, with incorporating mitigation measures, the Installation (including the extension to the Installation) will not have a significant impact on the quality or water body status of the receiving surface water bodies. There is no relevant hydrological connectivity or biological connectivity to other European sites located within the zone of influence of the Project.

## 3.0 ASSESSMENT OF GROUND AND/OR GROUNDWATER EMISSIONS

### 3.1 METHODOLOGY

This section addresses the potential for emissions to ground/groundwater. The scope and detail of this assessment is consistent with the extent and type of emissions to ground.

The existing receiving environment is described in terms of the existing groundwater quality. The potential impacts to aquifers, soils, sub-soils and rock environment of the facility are summarised, including any impact on environmental media other than those into which the emissions are to be made. The assessment will be made against emission limit values where relevant.

This assessment has been prepared from both a desktop review of existing information, and a site-specific investigations. The following is a list of sources of information consulted for use in this report:

- Geological Survey of Ireland (GSI) - on-line mapping, Geo-hazard Database, Geological Heritage Sites & Sites of Special Scientific Interest, Bedrock Memoirs and 1:100,000 mapping;
- Teagasc soil and subsoil database;
- Ordnance Survey Ireland - aerial photographs and historical mapping;
- Environmental Protection Agency (EPA) – website mapping and database information;
- National Parks and Wildlife Services (NPWS) – Protected Site Register;
- Project C-Unit AF1, Clonshaugh Business and Technology Park, Dublin 17. Due Diligence Report, ADSIL 24th November 2010
- Site 1 Cahill Printers Facility Due Diligence Report ADSIL, 22nd February 2013.
- Site 2 Acco Rexel Facility Due Diligence Report, ADSIL, 22nd February 2013.
- Environmental Audit (Phase 1 – Historical Review and Site Walkover) for Clifton Scannell Emerson Associates by AWN ref TH/12/6520 7th February 2013

- Complete Baseline Report 2024 IED Licence Review Application, ADSIL, AWN Consulting.
- Site Investigation Report. DUB090 Data Centre & Ski Lodge Clonshaugh, Dublin 17. Site Investigations Ltd, September 2021;
- Due Diligence Report DUB090 - JCD Clonshaugh. ARUP, January 2021;
- Environmental Assessment Report. Clonshaugh Business Park. Ground Investigations Ireland, February 2020;
- Engineering Planning Report - Drainage & Water Services. Proposed Data Centre Development Clonshaugh Business and Technology Park. Clifton Scannell Emerson Associates, October 2021;
- Flood Risk Assessment. Data Centre Development Clonshaugh Business and Technology Park. Clifton Scannell Emerson Associates, September 2021.

## 3.2 RECEIVING ENVIRONMENT

The receiving environment with regards to ground/ground water is set out in Section 7.2 of the Baseline Report (Attachment 4.8.3).

## 3.3 EMISSIONS TO GROUND AND ABATEMENT MEASURES

The installation has no proposed direct emissions to ground or ground water. The only potential impact of the installation to ground and ground water would be from indirect emissions from fuel and other accidental spills that may occur.

There is a potential for leaks and spillages from the fuel tanks to occur on site. In addition to this there is a potential for leaks and spillages from vehicles along access roads, loading bays and in parking areas. Any accidental emissions of oil or fuel could cause contamination if the emissions enter the water environment unmitigated.

The primary potential impact relates to a failure or accidental spill of fuel oil which is stored and used on site for the emergency backup generators. Fuel oil is stored in multiple locations across the Site:

- Bulk Fuel Oil Storage
  - 3 no. 52,000 litre (Building W) fuel storage tanks
  - 5 no. 54,000 litre (Building X ,Y) fuel storage tanks
- Emergency Back-up Generator Fuel
  - 13 no. day tanks (Building W), each 2,500 litres
  - 20 no. day tanks (Building X), each 2,500 litres
  - 7 no. day tanks (Building Y), each 2,500 litres
- Fire Sprinkler Pump Fuel
  - 3 no. tanks each 1,000 litres(located between Building W and Y)
  - 3 no. tanks each 1,000 litres (located at Building W)
- Top Up Fuel Oil Storage
  - 1 no. 40,000 litre (Building U, V) fuel storage tank
- Emergency Back-up Generator Fuel
  - 10 no. belly tanks (Building U), each 16,000 litres
  - 1 no. belly tank (Building U), 4,950 litres
  - 1 no. belly tank (Building V), 8,500 litres
  - 1 no. day tank (Building V), 1,000 litres
- Fire Sprinkler Pump Fuel
  - 2 no. tanks, each 450 litres (Building U, V)
  - 1 no. tank, 900 litres (Building U, V)

Fuel pipelines above ground are Carbon Steel, and below ground are Close Fit PLX (dual-contained pipe system).

The total combined fuel tank capacity is 748,250 litres (748.25 $m^3$), however as per standard ADSIL policy, tanks are filled to 90% capacity (max.), i.e. 673,425 litres (673.43 $m^3$). It should be noted that the tanks cannot be filled more than 90% as an alarm will be activated and the system would automatically shut-off.

In a worst case scenario, the fuel tanks will contain only diesel (i.e. 579.15 tonnes) and no HVO (0 tonnes), in the best case scenario, the fuel tanks will contain only HVO (i.e. 569.72 tonnes) and no diesel (0 tonnes). In reality, the ratio of diesel to HVO will vary and the amount of HVO and diesel will vary between these 2 scenarios.

The Operational Report (Attachment 4.8.1) outlines the fuel storage systems in detail.

In order to minimise any impact on the underlying subsurface strata from material spillages, the fuel storage tanks are located above ground, there is full containment and all containers are designed to be suitable for the chemicals stored within and in accordance with the EPA's guidelines for the storage and transfer of materials for scheduled activities (EPA, 2004). The design of all bunds conforms to standard bunding specifications - BS EN 1992-3:2006 *Eurocode 2 - Design of concrete structures - Part 3: Liquid retaining and containment structures*. The Operational Report (Attachment 4.8.1) outlines the fuel storage systems in detail.

A standard operating procedure for fuel unloading is in place at the Site to reduce the risk of spills and an on-site Emergency Response Plan (ERP) is in place and the Site maintains spill kits at all storage areas.

There are green and permeable areas on site, however, potentially contaminating materials i.e., oil or fuel oil are not contained or stored on these areas. The risk of a hydrocarbon spill within these areas is low.

There are robust control measures in place for the storage and transfer of fuel. Any accidental emissions of fuel are more likely to impact on the storm water network. Further information on mitigation measures with respect to surface water pollution controls is discussed in Section 2 above.

## 3.4 IMPACT ASSESSMENT

As there is no direct discharge, and no direct pathway to groundwater from this site, there is no likely potential impact on the soil environment or underlying groundwater body.

As there are no planned discharges to ground of processed or contaminated waters, there are no future likely exceedances of the thresholds outlined in the European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010).

# 4.0 ASSESSMENT OF FOUL SEWER EMISSIONS

## 4.1 METHODOLOGY

This section assesses emissions to foul sewer from the Installation. The assessment is based on guidance provided in the EPA's Industrial Emissions Licensing – Application Form Guidance and associated Emissions to Sewer Template documentation. The guidance defines “wastewater” as trade effluent or other matter other than domestic sewage or storm water.

The foul discharge from the Installation will comprise domestic sewage generated from staff welfare facilities and storm water run-off.

This section describes the nature and destination of the foul and storm water discharges to sewer and provides confirmation of connection capacity and consent from the relevant statutory authorities.

## 4.2 RECEIVING ENVIRONMENT

All foul effluent will be discharged to the on-site foul drainage network, drained to the offsite foul sewer that connects to the Ringsend Wastewater Treatment Plant (WWTP), operated by Uisce Éireann, and licensed by the EPA under Industrial Emissions Licence Reg. No. D0034-01.

The Ringsend WWTP (Reg. D0034-01) is designed to provide secondary treatment with a total treatment capacity of 959,040 m³/day (as constructed) and a Plant Capacity Population Equivalent 2,100,000 as set out in the latest available Annual Environmental Report (2023).

The Uisce Éireann Dublin Wastewater Treatment Capacity Register[1] as of December 2024 identifies Ringsend WWTP as having available capacity.

Treated effluent from the Ringsend WWTP is discharged to the Liffey Estuary Lower (Water Framework Directive Code: IE_EA_090_0300). According to EPA Maps, the Transitional Waterbody Water Framework Directive (WFD) Status 2016-2021 for Liffey Estuary Lower is Moderate. The Coastal Waterbody WFD Status 2016-2021 for Dublin Bay is Good.

## 4.3 EMISSIONS TO SEWER

The foul discharge from the installation will comprise domestic sewage generated from staff welfare facilities and storm water run-off.

Drainage of storm water from the fuel tank farm and associated fuel unloading bays to the south of the existing Installation (Building W) is discharged to foul sewer at emission point SE1.

- Prior to discharge, storm water runoff passes through a Full retention Class 1 hydrocarbon interceptor (FR3)

[1] https://www.water.ie/connections/developer-services/capacity-registers/wastewater-treatment-capacity-register/Dublin

The drainage from the fuel tank farm and associated fuel unloading bays for the existing Installation (Building X and Y) is directed to foul sewer at emission point SE3.

- Prior to discharge, storm water runoff passes through a Full retention Class 1 hydrocarbon interceptor (FR1)

The drainage sumps at the fuel unloading bays and in the bulk tank concrete bunds contain hydrocarbon detector system which automatically shuts off drainage from these sumps if fuel is detected, preventing any contaminated storm water from exiting the bund. Should the detector alarm active, they send an alarm signal to the BMS/EPMS critical alarm to alert Engineering Operations Technicians (EOTs).

There is one transformer compound onsite, located at the Newbury GIS Substation. The drainage from the transformer compound is directed to the foul drainage network and connects to the foul sewer at emission point SE2.

- Prior to discharge, storm water runoff passes through a Full retention Class 2 hydrocarbon interceptor (FR2)

A foul drainage line (as can be seen on Drawing 21_123F-00-XX-DR-C-1200-Foul Water Layout Plan) serves the fire sprinkler pumphouse to the south of Building U. This is connected to the internal floor gully. There is a Class 2 full retention hydrocarbon interceptor on this line (FR4). The foul line and interceptor act as a tertiary containment measure for unplanned emergency events, such as spillages associated with the pump and fuel tank. Under normal operating conditions, there is no discharge to the foul sewer.

The hydrocarbon interceptor(s) serves as a secondary protection, treating any incidental contaminants from the storm water before discharge to the foul sewer drainage network, the secondary protection is in place in the unlikely event of a failure or fire, which could potentially release hydrocarbons or other hazardous substances.

All hydrocarbon interceptors have high level liquid sensors, which indicates when the liquid level in the oil separator rises excessively and triggers an alarm, and oil level detection systems, which detects the oil level based on conductivity and triggers an alarm as set out in the Operational Report (Attachment-4-8-1).

There is no requirement for additional on-site treatment of foul sewage.

The foul sewer ultimately connects to the wider Uisce Éireann foul sewer network, then to the Ringsend Wastewater Treatment Plant (WWTP).

## 4.4 IMPACT ASSESSMENT

Ringsend WWTP operates under an Industrial Emissions Licence issued by the Environmental Protection Agency (EPA) (Licence Reg. No. D0034-01). In fulfilling its functions, Uisce Éireann is required to operate the facility within the conditions set out in this regulatory framework. This includes compliance with discharge limits, monitoring requirements, and environmental protection standards to ensure the safe and effective treatment of emission to foul sewer while minimising impacts on the receiving environment.

Treated effluent from Ringsend WWTP is discharged to the Liffey Estuary Lower and Dublin Bay, which currently maintain acceptable water quality status. Taking into account the domestic nature of the discharge, the presence of hydrocarbon

interceptors at potential risk areas, the treatment capacity at Ringsend WWTP, and that foul water discharges from the Installation represent a negligible percentage of the overall influent volumes at Ringsend WWTP, it is considered that the emissions will not have a significant effect on the environment in the vicinity of the Ringsend WWTP discharge in Dublin Bay.

## 5.0 REFERENCES

Environmental Protection Agency (2004) IPC Guidance Note on Storage and Transfer of Materials for Scheduled Activities.

Environmental Protection Agency (EPA). (2004) IPC Guidance Note on Storage and Transfer of Materials for Scheduled Activities.

Environmental Protection Agency (EPA). Envision water quality monitoring data, Available at: http://gis.epa.ie/Envision/. (Accessed: Feb 2022).

Geological Survey of Ireland. Available at: http://www.gsi.ie (Accessed: Feb 2022).

National Parks and Wildlife Services (NPWS) – Protected Site Register

Project C-Unit AF1, Clonshaugh Business and Technology Park, Dublin 17. Due Diligence Report, ADSIL 24th November 2010

Site 1 Cahill Printers Facility Due Diligence Report ADSIL, 22nd February 2013.

Site 2 Acco Rexel Facility Due Diligence Report, ADSIL, 22nd February 2013.

Environmental Audit (Phase 1 – Historical Review and Site Walkover) for Clifton Scannell Emerson Associates by AWN ref TH/12/6520 7th February 2013

Complete Baseline Report 2020 IED Licence Application, ADSIL, AWN Consulting ref JG/20/11534WR01