

ADSIL DUB57 EIS SCREENING REPORT

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06-10-15 FW15 A/ 0135
FINGAL C. C.PL. DEPT

1. INTRODUCTION..... 1

1.1 Project Description 1

1.2 Screening 1

1.3 Legislative Requirement..... 2

1.4 Sub Threshold Projects..... 3

1.5 Sub-Threshold Assessment..... 5

2. ASSESSMENT OF LIKELY SIGNIFICANT TRAFFIC AND TRANSPORT EFFECTS 5

3. ASSESSMENT OF LIKELY SIGNIFICANT WATER & HYDROLOGY EFFECTS 5

4. ASSESSMENT OF LIKELY SIGNIFICANT SOILS & HYDROGEOLOGY EFFECTS 6

5. ASSESSMENT OF LIKELY SIGNIFICANT LANDSCAPE AND VISUAL EFFECTS 6

6. ASSESSMENT OF LIKELY SIGNIFICANT AIR QUALITY AND CLIMATE EFFECTS 7

7. ASSESSMENT OF LIKELY SIGNIFICANT NOISE AND VIBRATION EFFECTS 7

8. ASSESSMENT OF LIKELY SIGNIFICANT BIODIVERSITY EFFECTS 7

9. ASSESSMENT OF LIKELY SIGNIFICANT CULTURAL HERITAGE (ARCHAEOLOGY AND ARCHITECTURAL HERITAGE) EFFECTS 8

10. CONCLUSION 11

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1. INTRODUCTION

1.1 Project Description

A facility of server centres for data storage has previously been developed and is operational on a site at the IDA Business Park, Snugborough Road, Abbotstown, Dublin 15. This evaluation has been prepared to inform the planning permission for the development of the DUB 57 building on the extended site and considers the potential for significant environmental effects to sensitive receptors of the construction and operation of the proposed development comprising a server centre, substation and associated ancillary development. The lands in question fall under the jurisdiction of Fingal County Council (FCC).

The proposed site red line boundary and site layout design are shown in Illustration 1 below. The nearest sensitive locations (residential properties) are located to the north west of the development along Ballycoolin Road at a distance of approximately 120m from the nearest site buildings. There are also residential dwellings to the south-east of the site along Ballycoolin Road, to the south of the site within the Westway and Sheephill estates and to the west of the site along Blanchardstown Road North. In addition there are a number of commercial and industrial operations located on lands to the north, east, south and west of the site.

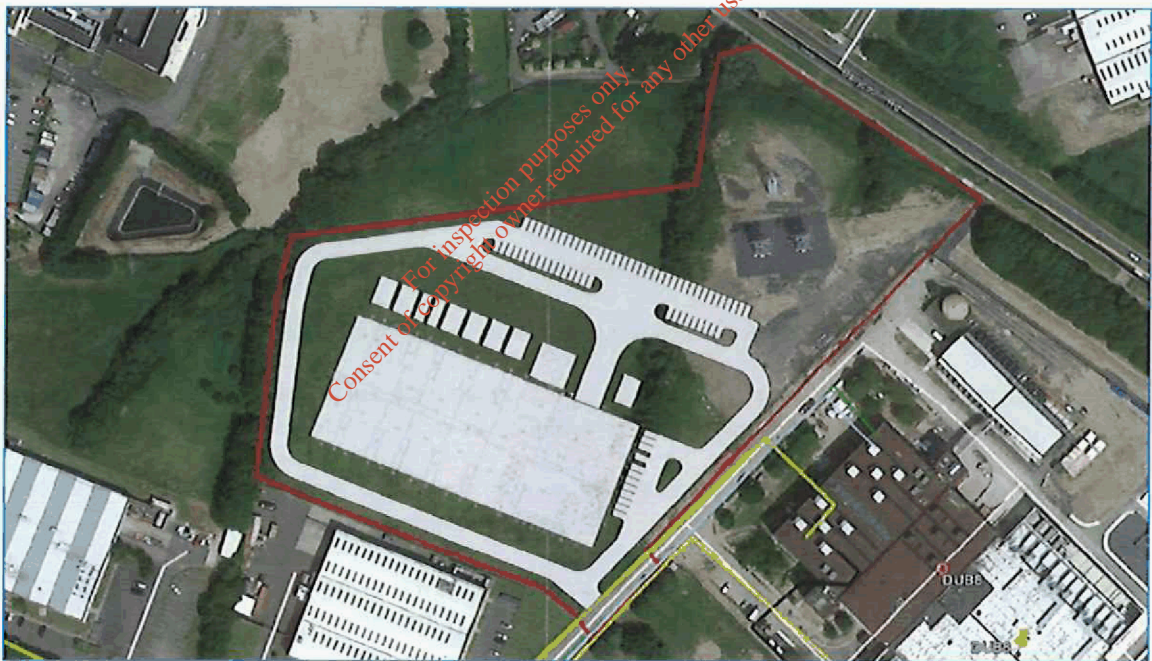


Illustration 1: Site Red line Boundary

1.2 Screening

The process of ascertaining whether a development requires an Environmental Impact Assessment (EIA) is determined by reference to mandatory and discretionary provisions. The provisions and criteria as set out in the Planning and Development Acts (2000-2010) and the Planning and Development Regulations (2001- 2011) set out the criteria under which the EIA requirement is triggered.

The European Communities (Environmental Impact Assessment) Amendment Regulations (S.I. 93/1999) and (S.I. 538/2001) which implements the EIA Directive 85/337/EC, codified by Directive 2011/92/EU also provide determination.

The likelihood of significant environmental effects is the principal issue around which consideration of the requirement for an EIA is focused.

These significant effects have the potential to occur due to nature of the proposed development, the scale, massing or magnitude of the proposed development and the intended location of the development in relation to particular environments sensitive to development.

The EIA Directive lists those projects for which an EIA is mandatory (Annex I) and those projects for which EIA may be required (Annex II). For to Annex II projects, individual Member States can choose to institute specific thresholds or project specific considerations or a combination of both of these approaches to arrive at a decision regarding EIA requirement.

1.3 Legislative Requirement

The Planning and Development Act, (2000-2010) and the Planning and Development Regulations (2001-2011) provide a guideline as to the specific requirements for both public and private projects to assess their potential effects on the environment.

The European Communities (Environmental Impact Assessment) Regulations, 1999, as amended, also set specific thresholds above which an EIA is mandatory.

Section 176 of the Planning and Development Act provides the initial steps in relation to the criteria of determination on whether an EIA is required. It states that:

- (1) "The Minister may, in connection with the Council Directive or otherwise, make regulations;
- (a) identifying development which may have significant effects on the environment, and
- (b) specifying the manner in which the likelihood that such development would have significant effects on the environment is to be determined.
- (2) Without prejudice to the generality of subsection (1), regulations under that subsection may provide for all or any one or more of the following matters:
- (a) the establishment of thresholds or criteria for the purpose of determining which classes of development are likely to have significant effects on the environment;
- (b) the establishment of different such thresholds or criteria in respect of different classes of areas;
- (c) the determination on a case-by-case basis, in conjunction with the use of thresholds or criteria, of the developments which are likely to have significant effects on the environment;
- (d) where thresholds or criteria are not established, the determination on a case-by-case basis of the developments which are likely to have significant effects on the environment;
- (e) the identification of selection criteria in relation to—
- (i) the establishment of thresholds or criteria for the purpose of determining which classes of development are likely to have significant effects on the environment, or
- (ii) the determination on a case-by-case basis of the developments which are likely to have significant effects on the environment.

(3) Any reference in an enactment to development of a class specified under Article 24 of the European Communities (Environmental Impact Assessment) Regulations, 1989 (S.I. No. 349 of 1989), shall be deemed to be a reference to a class of development prescribed under this section."

Development which requires an EIA for the Purposes of Part 10 of the Planning and Development Regulations is outlined under two separate sections, Part 1 and Part 2. Under Part 2, Infrastructure Projects, item 10 (b) (iv), pertains to this proposed development.

Table 1 lists these legislative requirements, which make the carrying out of an EIA mandatory for certain types of development, and indicates whether an EIA would be mandatory for the proposed development at the proposed site.

Mandatory	Regulatory Reference	Mandatory Criteria Met?
Part 2 (10) (b) (iv) Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere. (In this paragraph, "business district" means a district within a city or town in which the predominant land use is retail or commercial use.)	S.I. 600 of 2001 of the Planning and Development Regulations S.I. 93 of 1999 of European Communities (EIA) (Amendment) Regulations	No

Table 1.0: Mandatory EIA Criteria

The site where the proposed development will be located is 3.4 hectares in size and is not located in a business district as defined in the regulations in table 1.0 above. Thus an EIA is not a mandatory requirement for the proposed development under this criterion. While the mandatory requirements for developments are relatively straightforward, being based on type and scale, the discretionary (or sub-threshold) requirements are based on an assessment of the likely significant environmental effects of the proposed development.

1.4 Sub Threshold Projects

In considering whether a project is likely to have significant environmental effects, the Planning Authority, under Schedule 7 of the Planning and Development Regulations, must have regard to the criteria set out in article 27 of the European Communities (EIA) Regulations, 1999. This article refers to the criteria for determining whether works would or would not be likely to have significant effects on the environment set out in Annex III to the EIA Directive, as amended.

The criteria, as per Schedule 7 of the Planning and Development Regulations are grouped under three headings:

- (i) Characteristics of Proposed Development,
- (ii) Location of the Proposed Development and
- (iii) Characteristics of Potential Impacts. Consent authorities must have regard to these criteria in forming an opinion as to whether or not a sub-threshold development such as the proposed interim works at the Baths site, are likely to have significant effects on the environment.

The criteria are as follows:

1. "Characteristics of the proposed development.

The characteristics of proposed development in particular:

- *the size of the proposed development,*
- *the cumulation with other proposed development;*
- *the use of natural resources,*
- *the production of waste,*
- *pollution and nuisances,*
- *the risk of accidents, having regard to substances or technologies used.*

2. Location of proposed development

The environmental sensitivity of geographical areas likely to be affected by proposed development, having regard in particular to:

- *existing land use,*
- *the relative abundance, quality and regenerative capacity of natural resources in the area,*
- *the absorption capacity of the natural environment, paying particular attention to the following*

areas:

(a) wetlands,

(b) coastal zones,

(c) mountain and forest areas,

(d) nature reserves and parks,

(e) areas classified or protected under legislation, including special protection areas

designated pursuant to Directives 79/409/EEC and 92/43/EEC,

(f) areas in which the environmental quality standards laid down in legislation of the EU

have already been exceeded,

(g) densely populated areas,

(h) landscapes of historical, cultural or archaeological significance.

3. Characteristics of potential impacts

The potential significant effects of proposed development in relation to criteria set out under paragraphs 1 and 2 above, and having regard in particular to:

- *the extent of the impact (geographical area and size of the affected population),*
- *the transfrontier nature of the impact,*

- *the magnitude and complexity of the impact,*
- *the probability of the impact,*
- *the duration, frequency,*
- *reversibility of the impact¹.*

The likelihood of the proposed development to have significant effects on the environment must be assessed with reference to the criteria in Schedule 7 of the Planning and Development Regulations 2001.

1.5 Sub-Threshold Assessment

The Minister for the Environment, Heritage and Local Government published a Guidance document in August 2003, intended to assist planning and other consent authorities in deciding if significant effects on the environment are likely to arise in the case of works that are below the national mandatory EIA thresholds.

Under Schedule 7 of the Planning Regulations, and in cognisance of the above an assessment was undertaken in order to determine if the proposed development is likely to have significant effects on the environment.

2. ASSESSMENT OF LIKELY SIGNIFICANT TRAFFIC AND TRANSPORT EFFECTS

The potential Traffic and Transport impacts of the proposed development have been assessed by a standalone Transport Assessment prepared by AECOM, which is presented alongside this report.

The report has been undertaken to quantify the impact that the traffic generated by the proposed development will have on the study area road network.

The results of the impact assessment undertaken demonstrate that traffic from the proposed development will have a minimal impact on the surrounding road network. As such, no likely significant effects are predicted.

3. ASSESSMENT OF LIKELY SIGNIFICANT WATER & HYDROLOGY EFFECTS

The nearest surface watercourses indicated on the Environmental Protection Agency (EPA) website (Envision map viewer¹) are the Abbotstown Stream located 360m to the southeast of the site, and the Ballycoolen Stream located 210m to the southwest of the site. Both of these streams join the Tolka River, which runs in a west-to-east direction 1.5km south of the site. The Tolka River flows from Co. Meath to Fingal. The nearest water quality monitoring station is 2km west of the site (Mulhuddart Bridge). The EPA website indicates that the water quality at this point of the Tolka River is of bad status (Q1, Q1-2, Q2).

The principal potential impacts to surface water are associated with discharges to the receiving watercourses – in this case the nearby streams or the River Tolka. However, it is proposed to drain the development by a new and independent gravity foul water network to the existing 450mm diameter local authority trunk foul sewer located on the IDA Business Park Access Road. It is proposed to discharge attenuated surface water flows from the development via a new surface water

¹ <http://gis.epa.ie/Envision>, accessed 18 September 2015.

sewer network to the existing 1,200mm diameter local authority surface water sewer located on the existing ADSIL Site Access Road. The development will have a dedicated oil storage facility on site to supply the datacentres diesel generators. The facility will comprise of four 'Lynskey' storage tanks each with a capacity of 70,000 litre), which will be located within a 2.6m deep reinforced concrete bund to prevent oil contamination of the surrounding surface water bodies. Accordingly, there will be no deterioration of the current drainage system and the proposed works will actually improve the current drainage system to the Tolka (i.e. no likely pathways for impact downstream).

During the construction stage it is considered that the enforcement of industry best practice pollution prevention measures will prevent the occurrence of a pollution event (for example CIRIA Guideline Document C532 Control of Water Pollution from Construction Sites and C648 Control of water pollution from linear construction projects).

As such, it is not anticipated that there will be any significant effect on hydrology as a consequence of the construction or operation of the scheme.

4. ASSESSMENT OF LIKELY SIGNIFICANT SOILS & HYDROGEOLOGY EFFECTS

Based on the environmental desk based study (Appendix 4.1), due to the minimal nature of excavation required and the nature of the proposed development, it is not anticipated that there will be any significant impacts to soils and geology as a consequence of the construction or operation of the scheme.

As discussed in Section 3, during the construction stage it is considered that the enforcement of industry best practice pollution prevention measures will prevent the occurrence of a pollution event (for example CIRIA Guideline Document C532 Control of Water Pollution from Construction Sites and C648 Control of water pollution from linear construction projects).

During operation the water supply to the development will be provided from the existing 300mm watermains located on the IDA Business & Technology Park Access Road. As discussed in Section 3, a new gravity foul water network will be connected to the existing local authority trunk foul sewer and surface water flows from the development will discharge via a new surface water sewer network to the existing local authority surface water sewer. The development will have a dedicated oil storage facility on site to supply the datacentres diesel generators. The facility will comprise of four 'Lynskey' storage tanks (70,000 litre capacity per tank).

The tanks will be manufactured to requirements outlined in OFS T200 standards produced by Oil Firing Technical Association (OFTEC). As part of the commissioning process the tank and associated equipment will be tested for potential leaks, which will minimise the risk of pollution due to leaks arising from the poor manufacture of the storage tanks and ancillary equipment. In accordance with PPG2 and CIRIA Report 163 'Construction of bunds for oil storage tanks', the tanks will sit within a reinforced concrete bund with a finish level set approximately 2.6m below the surrounding the ground level. The sizing of the bund will be 110 per cent of the capacity of the primary tank, so will have a capacity to contain approximately 85,000 litres of oil.

As such, it is not anticipated that there will be any significant effect on soil and hydrogeology as a consequence of the construction or operation of the scheme.

5. ASSESSMENT OF LIKELY SIGNIFICANT LANDSCAPE AND VISUAL EFFECTS

The proposed development is in keeping with the scale, massing and height of the surrounding developments in the area. It is not considered to have any significant potential for landscape and

visual effect on any sensitive receptor, when considered in the context of the setting. Existing vegetation and mature trees to the rear of the nearest sensitive receptors on Ballycoolin road will be retained as these are without the red line boundary, and will continue to screen the site from view. As such, no likely significant effects are predicted.

6. ASSESSMENT OF LIKELY SIGNIFICANT AIR QUALITY AND CLIMATE EFFECTS

The potential Air & Climate impacts of the proposed development have been assessed by an impact prediction modelling exercise by AECOM, which is presented alongside this report.

This assessment fully characterises the likely Air & Climate impacts of the proposed development with regard to impact to sensitive receptors when considered as a cumulative impact with the noise output from the applicant's adjacent existing DUB08 and DUB51 facilities.

7. ASSESSMENT OF LIKELY SIGNIFICANT NOISE AND VIBRATION EFFECTS

The potential Noise and Vibration impacts of the proposed development have been assessed by an impact prediction modelling exercise by AWN Consulting Ltd, which is presented alongside this report.

This assessment fully characterises the likely noise and vibration impacts of the proposed development with regard to potential impact to sensitive receptors when considered as a cumulative impact with the noise output from the applicant's adjacent existing DUB08 and DUB51 facilities.

The assessment shows that all relevant noise emission limit value criteria will be met at all sensitive receptors and as such no significant noise and vibration impact is predicted from the proposed development. As such, no likely significant effects are predicted.

8. ASSESSMENT OF LIKELY SIGNIFICANT BIODIVERSITY EFFECTS

The natural heritage (biodiversity) resources of the proposed development site and a 1km study area around the site have been examined, using publically available online resources, in order to inform this assessment.

The development site lies well outside of any ecological designated site. The closest Natura 2000 site, protected at European level is South Dublin Bay Strand / Tolka Estuary Special Protection Area (SPA) (IE004024). It lies 10km to the east of the site and is designated for its wintering bird populations.

The closest Special Areas of Conservation (SAC) is North Dublin Bay SAC (IE000206), 13km to the east and is designated for its coastal habitats. The closest National Heritage Area (NHA) is the Royal Canal pNHA. It lies 3.5km to the south. The proposed development site is not linked hydrologically to these sites.

The development site itself consists of part of an improved grassland field bounded in places by a mature hedgerow. It is surrounded on each side by developed land including land uses of a power sub-station, large factory units, warehousing and commercial premises. It is also bounded by roads and further developed urban lands beyond.

The closest major watercourse is the River Tolka which lies approximately 1.5km to the south of the development site. The Ballycoolin stream, a tributary of the Tolka does extend close by site but stops several circa 210 metres away beyond further commercial developments.

06-10-15 FM 5 A/ 0135
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Within the site, the hedgerow is the most valuable ecological asset. However, due to its relatively isolated position within the surrounding developed landscape, it reduces in value as roads, security fences, walls and buildings act as barriers for commuting mammals and birds. Flood lighting and security lighting reduce the attractiveness of the area to many species. Consulting the National Biodiversity Centre records, results for the most likely protected species are as follows:

Protected Species		
Species	Within the 1km square that the site occurs	Within adjacent 1km of the site
Badger <i>Meles meles</i>	None recorded	Recorded in a km squares to the west of and south the site.
Otter <i>Lutra lutra</i>	None recorded	Recorded along the River Tolka,
Pipistrelle bats <i>Pipistrellus sp.</i>	None recorded (though would be likely to forage and commute within the site)	Recorded in a km square to the west and south.
Leisler's bat <i>Nyctalus leisleri</i>	None recorded (though would be expected to commute over the site).	Recorded in a km square to the west.
Daubenton's bat <i>Myotis daubentonii</i>	None recorded.	Recorded along the Tolka River.
Natterer's bat <i>Myotis nattereri</i>	None recorded.	None recorded.
Brown Long-eared bat <i>Plecotus auritus</i>	None recorded.	None recorded.
Smooth newt <i>Lissotriton vulgaris</i>	None recorded	Recorded in a km square to the south.
Common frog <i>Rana temporaria</i>	Occurs in the area.	Occurs on all sides of the site.

Table 1.1: Protected species occurrence.

Whilst some common species may occur within the proposed development site, due to its isolated nature from the wider countryside, its highly urbanised surroundings and the disturbance from the *existing* local industry, business in the surrounding industrial estates, such a habitat would be considered sub-optimal for many species.

On the basis of the information considered above and its evaluation, no significant ecological effects are predicted to occur as a result of the proposed development.

9. ASSESSMENT OF LIKELY SIGNIFICANT CULTURAL HERITAGE (ARCHAEOLOGY AND ARCHITECTURAL HERITAGE) EFFECTS

The cultural heritage resource of the proposed development site and a 1km study area have been determined, using publically available online resources, in order to inform the Cultural Heritage section of this EIS screening report.

The wider landscape around the proposed development site is largely one which has been highly developed with roads, residential areas and extensive industrial estates, although occasional greenfield areas do survive. One Recorded Monument, which is also a Protected Structure on the Fingal Record of Protected Structures (RPS), is present within 1km of the site. It comprises an earthwork mound of unknown origin, situated 210m to the south-west of the site (Figure 1, SMR no. **DU013-014** and RPS no. **678**), now incorporated into an industrial estate as a landscaped roundabout. The Archaeological Survey of Ireland (ASI) also records a redundant record of a mound/earthwork 540m east of the site (designated as a Protected Structure but not a Recorded Monument; Figure 1 SMR no. **DU014-025**, RPS no. **677**), which was formerly recorded on the ASI archaeological in origin. Archaeological excavations have proven it to be a natural feature, although it is still classified as an earthwork Protected Structure in the Fingal RPS.

No further archaeological assets recorded on the ASI, Protected Structures, Architectural Conservation Areas, or National Inventory of Architectural Heritage structures or designed landscapes are located within 1km of the proposed development site, and no such assets are recorded within the site itself. The site comprises part of an agricultural field, and a smaller area to the east which has been developed with pylons on concrete pads. The north-eastern boundary of the site may have formed part of the boundary of the townland of Snugborough, a small townland in which the site is located. However, this boundary has been removed by the construction of the road to the north, and now comprises a modern fence. Therefore this section of the townland boundary within the site is not considered to have any cultural heritage importance. 19th-century Ordnance Survey mapping records that a farmhouse was present at the southern site boundary, possibly extending mostly outside of the site. If below-ground remains of this feature survive, they would be of low archaeological importance. However, it is possible that these remains were truncated or destroyed by construction activity associated with the industrial building to the south and its associated landscaping and infrastructure.

While there may be a potential impact on peripheral archaeological remains of a former farmhouse, if they survive within the site, overall it is not anticipated that there would be any likely significant effects on the historic environment as a result of the proposed development.

Table of Cultural Heritage Assets	
Within the site	Within 1km of the site
Historic mapping suggests potential for archaeological remains of a post-medieval farmhouse to be present in the vicinity of the southern site boundary.	Recorded Monument and Protected Structure of a mound of unknown origin 210m to the south-west (SMR no. DU013-014 and RPS no. 678).
No National/Recorded/Registered Monuments, archaeological sites recorded on the ASI, Protected Structures, Architectural Conservation Areas, or structures/designed landscapes recorded by the National Inventory of Architectural Heritage are present within the site.	Erroneous Protected Structure and redundant ASI record of a natural mound 540m to the east (SMR no. DU014-025 , RPS no. 677).

Table 1.2: Cultural Assets

10. CONCLUSION

The likely effects that will arise from the proposed development have been evaluated in line with the relevant guidance and regulatory framework as described above. No known committed developments have been identified which have the potential to cause any significant cumulative impacts.

In line with the criteria outlined in Part 10 and Section 7 of the Planning and Development Regulations (2001), it is concluded that the proposed development, will not have a significant effect on the environment.

It is recognised that during the construction phase of the proposed development there may be temporary, and transient effects, through construction traffic and any minor noise effects from the works.

The operational phase of the proposed development is not predicted to have any significant environmental effects on the surrounding community or on sensitive receptors.

As such, there is no requirement under planning law to undertake an Environmental Impact Assessment (EIA) for the proposed development.

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Appendix 4.1

ENVIRONMENTAL SENSITIVITY AND SETTING	
Geology/ Hydrogeology	<p>All data relating to geology/hydrogeology is derived from the Geological Survey of Ireland (GSI) website.</p> <p>The subsoil map accessed through the GSI website shows that the site is underlain by Carboniferous Limestone Till subsoil. The underlying bedrock is described as Dinantian Upper Impure Limestones.</p> <p>The bedrock aquifer underlying the site is classified by the GSI as a 'Poor Aquifer – bedrock which is generally unproductive except for Local Zones'. The Groundwater vulnerability beneath the site is classified as being 'Extreme' due to the present of shallow bedrock. A gravel aquifer is not indicated to be underlying the site on the National Draft Gravel Aquifer Map. The site is not located within a Source Protection Area.</p> <p>The GSI website indicates that there are no groundwater wells within a 1km radius of the site. The GSI Technical View map indicates that there are approximately 28 boreholes within 1km of the site. The majority of these boreholes are identified as being 3m in depth with the bedrock being met. Four of the boreholes to the north-east of the site were 2.6-3.2m in depth, with bedrock not encountered.</p> <p>AECOM notes that the GSI groundwater dataset may be incomplete as there is no statutory requirement to register boreholes. Hence, one cannot discount the presence (historical or current) of boreholes.</p>
Other	<p>There are several EPA Integrated Pollution Control licenced facilities within 2km of the site, as follows:</p> <ul style="list-style-type: none"> • Ipsen Manufacturing Ltd. (P0117-07) – located approximately 200m northwest of the site; • Hitech Plating Ltd. (P0434-02)(Surrendered) – located approximately 300m north-east of the site; • Irish Asphalt Ltd. (P008102) – located approximately 1.3km east of the site; and • Swords Laboratories (P0552-02) – located approximately 1.25km northwest of the site. <p>There are also three EPA Licenced Waste facilities located within 2km of the site as follows:</p> <ul style="list-style-type: none"> • Starrus Eco Holdings Ltd. (W0183-01) – located approximately 1.7km north-east of the site; • Thorntons Recycling Centre (W0242-01) – located approximately 1.5km east of the site; and • Nurendale (Cappagh Road) (W0261-01) – located approximately 1.6km east of the site. <p>As detailed in radon maps prepared by the EPA, the site is located in an area where less than 1% of homes in the area are estimated to be above the reference level of 200 Bq/m (i.e. a 'Low' radon area).</p> <p>According to the National Parks and Wildlife Service (NPWS) Map Viewer, there are no Special Areas of Conservation or Special Protected Areas located within 2km of the site. The nearest Proposed Natural Heritage are within 5km of the site as follows:</p> <ul style="list-style-type: none"> • Royal Canal (002103) approximately 2.5km south of the site; and • Liffey Valley (000128) approximately 4.5km south of the site.
Sensitive Receptors	<p>Sensitive receptors identified within 3km of the site include:</p> <ul style="list-style-type: none"> • The groundwater beneath the site is classified as having 'extreme' vulnerability; the bedrock aquifer underlying the site is classified by the GSI as a 'Poor Aquifer – bedrock which is generally unproductive except for Local Zones'; • The Ballycoolen Stream 210m to the southwest of the site, the Abbotstown Stream 360m to the southeast of the site and the Tolka River located 2km south of the site; and • The Royal Canal proposed NHA located approximately 2.5km south of the site; however it has poor hydraulic connection with groundwater as its base is shallow, and is typically lined with clay.
Overall Sensitivity	<p>The overall environmental sensitivity of the site is considered to be LOW, given the distance to the streams/Tolka River and classification of the bedrock aquifer.</p>

SITE HISTORY AND POTENTIAL FOR SIGNIFICANT HISTORIC CONTAMINATION

History of Site Information pertaining to the history of the property and surrounding area was obtained from a review of historical Ordnance Survey maps in an attempt to establish the development history of the property and the potential for historical contamination.

AECOM reviewed mapping series including the 6 inch mapping series (1:10,560) surveyed between 1829-1841, the 25 inch mapping series (1:2,500) surveyed between 1888-1913 and aerial photography from 1995, 2000 and 2005.

The 6 inch mapping series (1829 -1841) shows the site and surrounding area to be largely undeveloped greenfield. The roads to the north and east of the site are largely unchanged from today. A Quarry is identified on the map just outside the northeast corner of the site. A pump has been identified on the map on the southern boundary of the site. The closest development to the site is a development identified as 'Rosemount', situated approximately 540m east of the site. A small unidentified single development is situated approximately 550m southwest of the site. No other significant developments are identified.

On the 25 inch map series (1888 - 1913) the layout of the streets remains predominantly unchanged with respect to the previous 6 inch edition. The quarry previously identified to the northeast of the site is no longer marked on the map. The Rosemount development remains unchanged. A small unidentified development is shown on the southern border of the site where the previously pump was situated. No other significant changes are identified.

Aerial photography, available on the OSI website, for 1995, 2000 and 2005 were also reviewed. The 1995 aerial photograph identifies that the site itself is predominantly unchanged from the historic maps (i.e. undeveloped green field site) However the area surrounding the site has been significantly developed from the previous maps and is more representative of the present day, with a large residential development present to the south of the site, and industrial developments surrounding the west, south and east of the site.

The 2000 aerial photograph identifies that the site and adjacent industrial developments are the same 1995; however extensive development can be seen to the west of the site. The 2005 aerial photograph shows the site and surrounding developments similar to the present day.

Potential On-site Sources of Historical Contamination As the site has been an undeveloped greenfield site, the potential for significant on-site sources of contamination is considered to be **LOW**.

Potential Off-Site Sources of Historical Contamination Based on the review of the historic mapping, the potential for off-site sources of contamination is considered to be **LOW**.

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