

ENVIRONMENTAL BALANCE IN DESIGN AND CONSTRUCTION

STAGE ONE APPROPRIATE ASSESSMENT SCREENING REPORT FOR THE PROPOSED DEVELOPMENT AT MILLENNIUM BUSINESS PARK

THORNTONS RECYCLING

NOVEMBER 2016



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Abstract: This document comprises the Stage One Screening Report for the proposed recycling facility at Millennium Business Park, Co. Dublin. Appropriate Assessment is required under Article 6 (3) and (4) of the Habitats Directive for any project or plan that may give rise to significant effects on a Natura 2000 site.

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1 INTRODUCTION

Fehily Timoney & Company (FT) were commissioned by the applicant Padraig Thornton Waste Disposal Ltd. t/a Thorntons Recycling (TR) (who are the owners of the development site at the Millennium Business Park, Cappagh Road, Dublin 11) to provide consultancy services in respect of the proposed recycling facility. An Appropriate Assessment Screening Report has been prepared in respect of the proposed development, as required by Article 6 of Council Directive 92/43/EEC (Habitats Directive).

In compliance with the provisions of Article 6 of the Habitats Directive, as implemented by Part XAB of the Planning and Development Act 2000, as amended, in circumstances where a proposed plan or project is likely to have a significant effect on a European (or a Natura 2000) site, either individually or in combination with other plans or projects, an Appropriate Assessment (AA) must be undertaken by the competent authority, of the implications for the site in view of the site's conservation objectives.

European sites comprise both Special Protection Areas (SPAs) for birds and Special Areas of Conservation (SACs) for habitats and species. The Habitats Directive formed a basis for the designation of SACs. Similarly, SPAs are legislated for under the Birds Directive (Council Directive 79/409/EEC on the Conservation of Wild Birds). In general terms, European sites are considered to be of exceptional importance in terms of rare, endangered or vulnerable habitats and species within the European Community.

Article 6 of the Habitats Directive envisages a two-stage process, which is implemented in some detail by the provisions of sections 177U and 177V of the Planning and Development Act. Screening for appropriate assessment in accordance with section 177U is the first stage of the AA process (Stage One), in which the possibility of there being a significant effect on a European site is considered. Plans or projects that have no appreciable effect on a European site are thereby excluded, or screened out, at this stage of the process. Where screening concludes that there is the potential for significant effects, then it is necessary to carry out an AA (Stage Two) for the purposes of Article 6(3), and a Natura Impact Statement (NIS) is produced. The NIS, which forms the basis of the AA, considers the impact of a project or plan on the integrity of a European site and on its conservation objectives, and where necessary, draws up mitigation measures to avoid/minimise negative impacts.

The competent authority, in this case An Bord Pleanála, in carrying out an AA, is required to make an examination, analysis, evaluation, findings, conclusions and a final determination as to whether or not the proposed development would adversely affect the integrity of the relevant European site in view of its conservation objectives.

This report comprises of the Stage One Screening Report (in Section 3) to evaluate the potential impact(s) of proposed development at Millennium Business Park on the European sites located within a 15 km radius. The proposed development is not located within a European site. Eleven European sites are located within 15 km of the proposed development:

- North Dublin Bay cSAC* (site code 000206)
- Rogerstown Estuary cSAC* (site code 000208)
- South Dublin Bay and River Tolka Estuary SPA (site code 004024)
- South Dublin Bay cSAC* (site code 000210)
- North Bull Island SPA (site code 004006)
- Rye Water Valley/Carton cSAC* (site code 001398)
- Malahide Estuary cSAC* (site code 000205)
- Baldoyle Bay cSAC* (site code 00199)
- Rogerstown Estuary SPA (site code 004015)
- Baldoyle Bay SPA (site code 004016)
- Broadmeadow/Swords Estuary SPA (site code 004025)

* At present many SACs in Ireland are currently 'candidate' SACs, and referred to as cSACs. The relevant Statutory Instruments for the cSACs in Ireland have not yet been made, however, these "candidate" sites must still be afforded the same level of protection as if they were SACs as designated in accordance with the EU Habitats Directive.

1.1.1 Legislative Requirements

The requirements for an AA are set out in the Habitats Directive 92/43/EEC. Articles 6(3) and 6(4) of this Directive state:

6(3) Any plan or project not directly connected with or necessary to the management of the site (Natura 2000 sites) but likely to have significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implications for the site in view of the sites conservation objectives.

In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

6(4) If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.

The statutory agency responsible for European sites is the National Parks and Wildlife Service (NPWS) of the Department of Arts, Heritage and the Gaeltacht (DAHG). In December 2009 'Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government' was published (DoEHLG, 2009). This guidance document was prepared jointly by the NPWS and Planning Divisions of DoEHLG (now DAHG), with input from local authorities. Previously, in 2001, the European Commission issued a guidance document. This NIS has been prepared in accordance with the relevant Irish and European Commission Guidance.

1.1.2 Regulatory Context

In 1997, the Habitats Directive was transposed into Irish National Law by the European Communities (Natural Habitats) Regulations, SI 94/1997 (as amended by S.I. 233/1998 & S.I. 378/2005). The European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. 477/2011) revoked the 1997 Regulations (and amendments) as well as the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010. The purpose of the 2011 Regulations was to address transposition failures identified in the Court of Justice of the European Union (CJEU) judgements. Following additional amendments in 2013 (S.I. 499/2013) and 2015 (S.I. 355/2015), the regulations are now cited as the European Communities (Birds and Natural Habitats) Regulations 2011 to 2015.

The Regulations have been prepared to address several judgments of the CJEU against Ireland, notably cases C-418/04 (*Commission v Ireland*) and C-183/05 (*Commission v Ireland*), in respect of failure to transpose elements of the Birds Directive and the Habitats Directive into Irish law.

1.2 Proposed Works

It is proposed to develop a materials processing and transfer facility at the Millennium Business Park site for the acceptance of up to 170,000 tonnes per annum of residual municipal solid waste (MSW) from commercial and domestic sources, comprising 'black bin' residual waste, 'brown bin' organic waste, waste wood from construction and other sources, as well as green waste.

The site is located on the Cappagh Road in Dublin 11 and forms part of the Millennium Business Park commercial park, as shown on Figure 1-1. Access is via 2 no. existing entrances from the Cappagh Road and through the Millennium Business Park. An aerial view of the site is presented in Figure 1-2. The site area is c. 2.4 ha.

It is proposed to develop a materials processing and transfer facility of up to 170,000 tonnes per annum (tpa) capacity for:

- the acceptance and processing of up to 120,000 tpa residual municipal solid waste (MSW) for the production of solid recovered fuel (SRF) and for transfer
- the acceptance, for bulking, of up to 30,000 tpa of waste wood/green waste
- the acceptance of up to 20,000 tpa of source segregated 'brown bin' material for bulking, prior to consignment offsite to an appropriate treatment facility

The proposal will require the development of a waste processing building, a bale storage building, a welfare and office building, vehicle marshalling areas, associated parking, surface and foulwater infrastructure and other ancillary infrastructure at the site.

It is also proposed to relocate a portion of the Finglas-Ballycoolin 38 kV powerline that traverses the site, both underground and overground. The applicant has engaged with ESB Networks on this matter who support the relocation of this powerline as part of this application.

Residual MSW will be accepted at the facility for the production of SRF through various treatment processes including screening, drum separation, eddy current and magnetic separation, optical sorting and shredding. The residual MSW will have been partially pre-treated prior to acceptance at the facility to remove any organic components from the material to ensure production of the highest quality SRF possible. SRF produced will be utilised for energy production, primarily in indigenous cement kilns.

Transfer capacity for residual MSW will also be provided with the waste processing building, in order to allow the acceptance of residual MSW for 'bulking up', prior to consignment offsite for further treatment. 'Bulking up' refers to the process of accepting smaller volumes of waste from refuse collection vehicles (RCV's), skips etc. and transferring this material to larger volume trailers for more efficient and economic transportation of the waste material. It is not proposed that residual MSW managed in this manner will be utilised in SRF production.

A dedicated bale storage building will be developed to provide storage capacity for SRF produced during periods when cement kilns may be unavailable due to scheduled maintenance and breakdowns. SRF will be baled within the processing building and the bales transferred to the storage building so that SRF production can continue during these periods. When outlets are available again, this SRF will be de-baled within the processing building and consigned from site.

Waste wood and green waste collected by Thorntons Recycling and other third party operators will be accepted at the facility within the processing building for bulking up prior to consignment offsite.

Biowaste material i.e. brown bin material will be accepted from commercial and domestic sources for bulking up prior to movement off site for treatment at the Thorntons Recycling composting facility at Kilmainhamwood in Co. Meath, or other suitable processing locations. This material will be accepted within a dedicated, fully enclosed annex of the waste processing building that will operate under negative aeration, with processing of air from this annex through an appropriate abatement technology, to ensure the potential for odour generation associated with this material is eliminated.

The site is currently undeveloped and comprises a grassed surfaced portion and a gravel hardstanding area, with 2 disused buildings thereon, which will be demolished as part of the proposed development. The site is not currently enclosed along its western boundary. The site is bordered to the immediate north by a quarry processing activity and existing waste management facility, to the east by an active quarry and to the south and west by the Cappagh Road and a number of industrial buildings and undeveloped lands. The development site is zoned for heavy industry (as per Sheet No. 12 of the Fingal Development Plan (2011 to 2017)).

The overall approach to be taken in this environmental impact assessment is to consider the impacts of the existing facilities cumulatively with the impact of the proposed facility development in relevant parts of the assessment so that a thorough evaluation of potential impacts is ensured.

Construction of the proposed development is expected to take between 12 – 15 months, with an operational lifetime of in excess of 20 years. The existing site entrances off the Cappagh Road will be redeveloped to facilitate vehicle access, while a second entrance location from within the Millennium Business Park will be developed, primarily for visitor and staff entry.

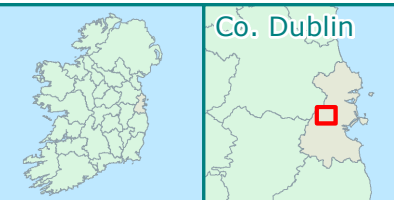
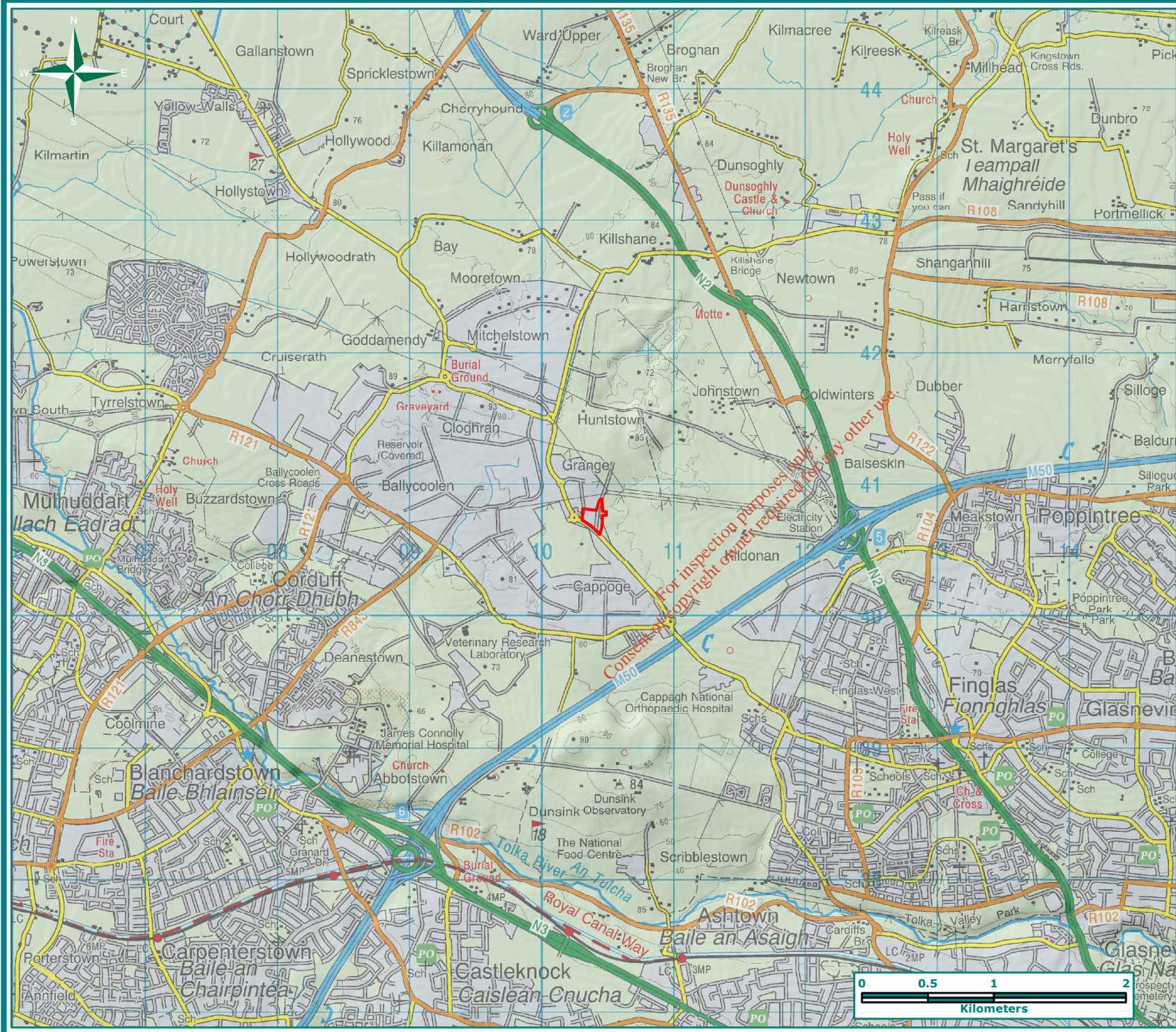
The facility will operate under an Industrial Emissions licence from the Environmental Protection Agency (EPA). 24-hour, 7 days per week operation of the facility is proposed.

Best practice construction methods will be employed for the works and an outline Construction and Environmental Management Plan (CEMP) has been prepared to accompany the planning application for the proposed development.

The following non-exhaustive list of guidance documents should be adhered to for the works:

- Guidelines for the Crossing of Watercourses During the Construction of National Road Schemes (NRA, 2008);
- Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters (IFI, 2016);
- CIRIA Environmental Good Practice on Site (C741);
- Best Practice Guide BPGCS005, Oil Storage Guidelines;
- CIRIA Control of Water Pollution from Linear Construction Sites. Technical Guidance (C648);
- CIRIA Control of Water Pollution from Construction Sites. Guidance for Consultants and contractors (C532);
- CIRIA Sustainable Construction Procurement. A Guide to Delivering Environmentally Responsible Projects (C571).

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Legend
 Proposed Site Boundary

Date 17/11/2016

Client Name
 Thorntons Recycling

Project Title
 NIS for Proposed Development at Millennium Park

Figure Title
 Site Location

Figure No. 1.1

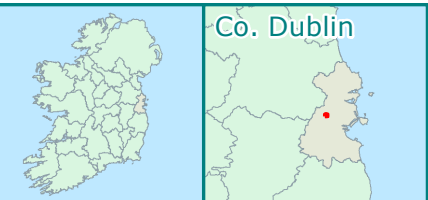
Rev. A

Scale 1:40,000 @ A4



Core House, Pouladuff Road, Cork, T12 D773, Ireland
 T: +353-21-4964133, F: +353-21-4464
 Unit 16 JS Plaza, North Park Business Park, Dublin 11, D11 PXTO, Ireland
 T: +353-1-6583500, F: +353-1-6583501
 W: www.fehilytimoney.ie E: info@ftco.ie

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Legend

Proposed Site Boundary

Date 13/10/2016

Client Name
Thorntons Recycling

Project Title
EIS for Proposed Development at Millennium Park

Figure Title
Aerial View of Site Location

Figure No.	1.2	Rev.	A
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Scale	1:5,000	@ A4
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Core House, Pouladuff Road, Cork, T12 D773, Ireland
T: +353-21-4964133, F: +353-21-4464
Unit 16 JS Plaza, North Park Business Park, Dublin 11, D11 PXT0, Ireland
T: +353-1-6583500, F: +353-1-6583501
W: www.fehilytimoney.ie E: info@ftco.ie

2 METHODOLOGY

2.1 Appropriate Assessment Methodology

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures to be addressed in the AA process. Firstly, a project should aim to avoid any negative impacts on European sites by identifying possible impacts early in the project, and should design the project in order to avoid such impacts.

There are four stages in an AA, as outlined in the European Commission Guidance document (2001). The following is a brief summary of these steps.

- Stage One - Screening: This stage examines the likely effects of a project either alone or in combination with other projects upon a European Site and considers whether it can be objectively concluded that these effects will not be significant.
- Stage Two - Appropriate Assessment: In this stage, the impact of the project on the integrity of the European site is considered with respect to the conservation objectives of the site and to its structure and function. Mitigation measures should be applied to the point where no adverse impacts on the site(s) remain.
- Stage Three - Assessment of Alternative Solutions: Should the Appropriate Assessment determine that adverse impacts are likely upon a European site, this stage examines alternative ways of implementing the project that, where possible, avoid these adverse impacts.
- Stage Four - Assessment where no alternative solutions exist and where adverse impacts remain: Where imperative reasons of overriding public interest (IROPI) exist, an assessment to consider whether compensatory measures will or will not effectively offset the damage to the Natura site will be necessary. European case law highlights that consideration must be given to alternatives outside the project area in carrying out the IROPI test. It is a rigorous test which projects are generally considered unlikely to pass.

In the preparation of this assessment therefore, regard has been given to the Habitats Directive and the European Communities (Birds and Natural Habitats) Regulations 2011, and with reference to the relevant guidance, in particular:

- *Assessment of Plans and Projects significantly affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*, European Commission 2001.
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the 'Habitats Directive' 92/43/EEC*, European Commission, 2000.
- *Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities*. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin 2009.

2.1.1 Impact Assessment

The first step in the screening process is to develop a list of European sites potentially affected by the proposed development. Each European site is reviewed to establish whether or not the proposed development is likely to have a significant effect on the integrity of the site, as defined by its structure and function, and its conservation objectives.

The qualifying interests of each European site are identified and the potential threats are summarised into the following categories for the screening process, and described within the screening matrix as follows:

- Direct impacts refer to habitat loss or fragmentation arising from land-take requirements for development or agricultural purposes. Direct impacts can be as a result of a change in land use or management, such as the removal of agricultural practices that prevent scrub encroachment.

- Indirect and secondary impacts do not have a straight-line route between cause and effect, and it is potentially more challenging to ensure that all the possible indirect impacts of the plan (or project) – in combination with other plans and projects - have been established. These can arise when a development alters the hydrology of a catchment area, which in turn affects the movement of groundwater to a site, and the qualifying interests that rely on the maintenance of water levels. Deterioration in water quality can occur as both an indirect or direct consequence of development, which in turn changes the aquatic environment and reduces its capacity to support certain plants and animals. The introduction of invasive species can also be defined as an indirect impact, which results in increased movement of vectors (humans, fauna, surface water), and consequently the transfer of alien species from one area to another.
- Disturbance to fauna can arise directly through the loss of habitat (e.g. bat roosts) or indirectly through noise, vibration and increased activity associated with construction and operation.

2.2 Desktop Study

In order to complete the Screening for Appropriate Assessment certain information on the existing environment is required. A desk study was carried out to collate available information on the site's natural environment. This comprised a review of the following publications, data and datasets:

- Draft Fingal County Development Plan 2017 – 2023
- Fingal County Development Plan 2011 – 2017
- National Parks and Wildlife Service (NPWS) website and metadata available (www.npws.ie)
- OSI Aerial photography and 1:50000 mapping
- National Biodiversity Data Centre (NBDC) (on-line map-viewer)
- BirdWatch Ireland
- Teagasc soil area maps (NBDC website)
- Geological Survey Ireland (GSI) area maps
- Environmental Protection Agency (EPA) water quality data
- The Eastern River Basin District (ERBD) datasets (Water Framework Directive) now Inland Fisheries Ireland (IFI).

2.3 Field Assessment

Habitats

The habitats within the site of the proposed facility were identified and classified, according to 'A Guide to Habitats in Ireland' (Fossitt, 2000), during a walkover survey of the site on the 7th of July 2016. The dominant plant species present in each habitat type was recorded.

Habitats were appraised and evaluated according to their occurrence as protected habitats under Annex I of the EU Habitats Directive (92/43/EEC) and for their capacity to support rare, threatened and endangered species. The methodology used in this report to assess the impact on habitats is based on NRA guidelines (2009).

Mammals

Mammal observations or signs were recorded during site walkovers on the 7th of July 2016. Any signs or sightings noted during other ecological surveys on the site are also included in this report. The two small streams within the site were walked to search for potential otter holts. The conservation status of mammals within Ireland and Europe is assessed using one or more of the following documents; Wildlife Acts (1976 - 2010), the Red List of Terrestrial Mammals (Marnell *et al.*, 2009) and NPWS (2013) *The Status of EU Protected Habitats and Species in Ireland*.

Bats

A survey of all buildings, old trees and other structures within the site of the Millennium Park was conducted by FT ecologists during daylight hours on the 7th of July 2016. All structures were inspected for signs of bat presence; this was aided by the use of a powerful torch and endoscope. The animals themselves are less likely to be observed than evidence of their presence; however, they are observed from time to time. Evidence of bats can be the presence of grease staining, droppings, urine marks, feeding signs; in the form of invertebrate remains, dead bats and/or the presence of bat fly pupae, Nycteribiidae. Potential roosting habitat like cracks, holes and crevices within features on-site were noted for further investigation during the activity survey.

Evidence of bat roosts was searched for and information on all potential roosts was recorded according to roost identification guidelines 'Bat Survey Guidelines: Traditional Farm Buildings Scheme', Aughney, T., Kelleher, C. & Mullen, D. (2008). When investigating potential bat roosts, best practise methodology referred to in among other guidance document including NRA Guidelines for the Treatment of Bats during the Construction of National Road Schemes, (NRA, 2006) was implemented.

A bat activity survey was conducted on the night of the 7th of July 2016. A frequency division bat detector (BatBox Duet) was used to identify bats in the field and a time expansion bat detector (Pettersson D240X) with an Edirol MP3 recorder were used to later confirm species identification. A handheld GPS was used to mark areas of bat activity. The survey began at 21:50 before sunset at the site and continued until 23:10.

There were no seasonal or climatic constraints during surveying. The weather on the survey night was good - dry with light winds (temp 9°C). For health and safety reasons there were access constraints in relation to certain buildings. The bat survey was limited as evidence of an unauthorised habitation of the derelict house was recorded during the daytime structural survey. A horse was also present in the back garden of the house. Therefore, the activity survey was concentrated along the treeline and sheds away from the derelict house as surveyors were advised not to approach the derelict house after dark.

A follow up bat survey was undertaken following a fire at the derelict house within the site on the 30th of September 2016. Surveys commenced within the site at 18:00 during which all buildings and features of interest were re-examined for signs of bat occupancy or utilisation. A dusk emergence half an hour prior to sunset (19.08) within the site. Conditions were suitable for bat activity with a temperature of 19° C, partly cloudy, with south westerly wind of approximately 24mph. A light shower commenced at 19.50 which was not forecasted for area. The survey was finished at 20.30 due to rain increasing. A dawn survey was carried out the following morning commencing at 5.30 with sunrise at 07.23. Conditions were dry with a temperature of 12° C, partly cloudy and a west south westerly wind measuring up to 20mph.

Avifauna

All bird species observed and heard within the study area boundary were noted during ecological surveys within the site.

Other Fauna

During the course of ecological surveys at the proposed site, other species of fauna were noted and included in the report.

3 STAGE ONE - SCREENING REPORT

3.1 Brief Description of the Existing Site

3.1.1 Site Location

The development site is located at the Millennium Business Park, Cappagh Road, Dublin 11 at an elevation of c. 82 mOD and is c. 2.4 ha in area. It is located in the townlands of Grange & Cappoge, approximately 4 km north-west of Finglas village and 3 km north-east of Blanchardstown village. The site is located approximately 700 m directly north of the M50 and 1.4 km west of the N2.

The site is currently undeveloped and comprises a grassed surfaced portion and a gravel hardstanding area, with two disused buildings thereon. The site is not currently enclosed along its western boundary. It is bordered to the immediate north by 2 no. concrete processing facilities and an existing waste management facility, to the east by an active quarry, to the south by the Cappagh Road and to the west by a light industrial unit and undeveloped lands. A small café, Rose Café, is also located directly behind the light industrial unit, approximately 70 m from the western boundary.

The Thorntons Recycling site is zoned for Heavy Industry, in accordance with the Fingal County Development Plan 2011 to 2017. There are a large number of commercial and industrial units within 1 km of the site boundary. In addition to the Millennium Business Park in which the site is located, the Northwest, Ballycoolin, Huntstown, Rosemont, Stadium, Keypoint and Premier Point Business Parks are also located nearby. The nearest major residential zones are Finglas West, located approximately 1.5 km south east of the site, and Corduff, located approximately 2 km south west of the site. There is one residential dwelling located approximately 270m south-east of the site on the Cappagh Road.

3.1.2 Site Access

Access to the site is via two existing entrances from the Cappagh Road and through the Millennium Business Park. The existing entrances are currently blocked off to prevent unauthorised access. Access to the site through the Millennium Business Park is via the unenclosed western portion of the site.

3.1.3 General Description of the Catchments

The proposed development lies within Hydrometric Area HA 09 known as the Liffey and Dublin Bay, which is under the responsibility of the Eastern River Basin District (ERBD). The site drains into the following waterbody catchment within the Tolka River Catchment:

- EA_Tolka167_Tolka1_Lower (IE_EA_09_1868)

The land proposed for the development site drains to the Bachelors Stream tributary of the Tolka River, however there are no watercourses running through the site. Bachelors Stream runs parallel to the N2 roadway, as far as Glasnevin where it joins the Tolka River.

3.1.4 Current WFD Status and Risk Assessment

A risk assessment was carried out in 2005 on each waterbody catchment, as defined under the WFD. Some of these assessments were updated in 2008. The results of the assessments are available on the WFD website (www.wfdireland.ie). The river waterbody IE_EA_Tolka (reference IE_EA_09_1868) is currently of 'Bad' status. The waterbody is designated as 'At Risk' due to risks from point sources and diffuse sources. It is an objective to restore the status of this waterbody to 'Good' by 2027. Specific status elements results relating to the above waterbody are presented in Table 3-1.

Table 3-1: Status element results for the Lower Tolka river waterbody

Lower Tolka	Status
Macroinvertebrate status	Bad
General physico-chemical status	Moderate
Fish status	Poor
Overall ecological status	Bad

12.1.1 Internal Site Drainage

The site currently falls very gently from south to north with a c. 0.5 - 1m gradient across the site. Incident runoff is likely to percolate through to groundwater and flow towards the eastern site boundary in the direction of the adjacent Huntstown quarry. No drainage system currently exists on site. The eastern portion of the site contains a gravel hardstanding with a similar gradient as the wider site. The remainder of the site is greenfield and is considered to be of high permeability.

3.1.5 Habitats within and immediately adjacent to the existing site

Dry Meadows and Grassy Verges (GS2)

'Dry meadows and grassy verges' are meadows which are rarely fertilised with little or no grazing. This habitat is comprised of mainly tall grasses such as cocksfoot (*Dactylis glomerata*), false-oats grass (*Arrhenatherum elatius*) and Yorkshire fog (*Holcus lanatus*) which were frequent with vascular plants such as ragwort (*Senecio jacobaea*) and bush vetch (*Vicia sepium*) were frequent within the grass. There were also patches of shorter grass where vascular species were more visible. Self-heal (*Prunella vulgaris*), red clover (*Trifolium pratense*), white clover (*Trifolium repens*) and silverweed (*Potentilla anserina*) were frequent. Within the grassland bramble (*Rubus fruticosus*) was occasional with young sycamore (*Acer pseudoplatanus*), elder (*Sambucus nigra*) and hawthorn (*Crataegus monogyna*) trees rare and ash (*Fraxinus excelsior*) saplings rare. Evidence of low level grazing (horse) was found within the habitat.

Dry Meadows and Grassy Verges (GS2) - Ornamental/non-native scrub (WS3)

The south-eastern edge of the site is comprised of a mosaic of 'ornamental/non-native scrub' (WS3) and 'dry meadows and grassy verges' (GS2). This habitat is located within the northern and southern areas of a derelict house. The habitat contains an overgrown ornamental garden categorised as 'ornamental/non-native scrub' (WS3). This habitat consists mainly of large shrubs (2-5m tall) with trees rare. An area which would have once been a lawn is categorised as 'dry meadows and grassy verges' (GS2). This habitat contains tall overgrown grassland which is scattered with non-native ornamental scrub. This habitat is comprised of mainly tall grasses such as Cocksfoot, false oats grass and Yorkshire fog which were frequent with vascular plants such as Ragwort and creeping thistle (*Cirsium arvense*) were frequent within the grassland. Evidence of a low level horse grazing was found within the habitat.

Spoil and Bare Ground (ED2) / Recolonising bare ground (ED3)

This habitat mosaic is made up of 'spoil and bare ground' (ED2) and 'recolonising bare ground' (ED3) located along most of the eastern edge of the site. This habitat is comprised mainly of crushed stone/hardcore and contains some remnant of construction material and now lies derelict. This habitat is made up of a mosaic of 'spoil and bare ground' which is yet to be colonised and 'recolonising bare ground' which contains different degrees of colonisation (but less than 50%) by grasses and vascular plants. Annual meadow-grass (*Poa annua*), rough meadow grass (*Poa trivialis*), self-heal (*Prunella vulgaris*) and Ragwort were frequent within the habitat. Towards the southern edge of this habitat was a number of heaps of material comprised of sand, gravel, concrete and cinder blocks. These heaps have been colonised by butterfly bush (*Buddleja davidii*) and red valerian (*Centranthus ruber*) which were abundant.

It must be noted that two areas of Japanese knotweed (*Fallopia japonica*) were observed adjacent to this habitat outside the site along the sites eastern boundary.

Recolonising bare ground (ED3)

Within 'dry meadows and grassy verges' (GS2) which is located on the western side of the site is a small area of 'recolonising bare ground' (ED3). This habitat sometime in the past became bareground and has been colonised by a number of grasses and vascular plants; these included silverweed, creeping cinquefoil, annual meadow grass and creeping buttercup which were frequent.

Treelines (WL2)

An old treeline is located within the site and effectively acts as a buffer between the 'dry meadows and grassy verges' (GS2) and the rest of the site. The treeline is comprised of 10-12m stunted unhealthy looking ash trees with dieback, with standing dead trees occasional. Many of the trees are covered by ivy (*Hedera helix*). Hawthorn is present as an understorey tree and is frequent. These trees offer potential roosting habitat for bats. Bird droppings observed under dead standing trees indicate that potentially a bird of prey is likely using parts of this habitat to perch.

Buildings and artificial surfaces (BL3)

A derelict house, derelict farm buildings and an intact tall stone wall with mortar are located to the south-eastern edge of the site.

Figure 3-1 shows the habitats within the site boundary.

3.1.6 Sites of National Importance

Sites of National Importance in the Republic of Ireland are termed, Natural Heritage Areas (NHA) and proposed Natural Heritage Areas (pNHA).

While the Wildlife (Amendment) Act 2000 has been passed into law, pNHAs will not have legal protection until the consultative process with landowners has been completed; this process is currently ongoing. Six pNHAs were recorded within 10 km of the proposed development. There are no NHAs within 10 km of the proposed development.

- Liffey Valley pNHA (site code 000128)
- Santry Demesne pNHA (site code 000178)
- North Dublin Bay pNHA (site code 000206)
- Feltrim Hill pNHA (site code 000208)
- Royal Canal pNHA (site code 002103)
- Grand Canal pNHA (site code 002104)

3.2 Brief Description of the European sites within 15 km of the Development

A total of 11 European sites are located within 15 km of the proposed development. These include 6 candidate Special Areas of Conservation (cSACs) and 5 Special Protection Areas (SPAs).

- North Dublin Bay cSAC* (site code 000206)
- Rogerstown Estuary cSAC* (site code 000208)
- South Dublin Bay and River Tolka Estuary SPA (site code 004024)
- South Dublin Bay cSAC* (site code 000210)
- North Bull Island SPA (site code 004006)
- Rye Water Valley/Carton cSAC* (site code 001398)
- Malahide Estuary cSAC* (site code 000205)
- Baldoyle Bay cSAC* (site code 00199)
- Rogerstown Estuary SPA (site code 004015)

- Baldoyle Bay SPA (site code 004016)
- Malahide Estuary SPA A.K.A. Broadmeadow/Swords Estuary SPA (site code 004025)

The full NPWS site synopses for the designated areas are available in Appendix 1. Table 3-2 summarises the details of the European sites, including the qualifying interests, conservation objectives and threats to the sites. Figure 3.2 shows the location of the European sites in relation to the proposed development.

The closest European site to the proposed development is the South Dublin Bay and River Tolka Estuary SPA (site code 004024) located 8.9 km south east of the proposed development. All other sites are located greater than 10km from the proposed development.

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