Ecology Report

DUB 53 Site

Greenhills Road, Tallaght

Doherty Environmental

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1 Introduction

Doherty Environmental has been commissioned by CSEA Consulting Engineers Ltd. to prepare an ecology report for the proposed DUB 53 facility site at Greenhills Road, Tallaght.

The remainder of this report outlines:

- the methodology used to: identify current and historical habitats at the site; and evaluate the ecological status of the site;
- the potential risks posed by the waste material to ecological receptors; and
- recommendations for managing the site into the future.

2 Methodology

2.1.1 Survey Methodology

The basis for this assessment was a Phase 1 Habitat Survey, undertaken in accordance with the *Heritage Council's "A Guide to Habitats in Ireland"* (Fossitt, 2000) and the prepublication version of the *"Best Practice Guidance for Habitat Survey and Mapping"* (Heritage Council. 2010). The *Guide to Habitats in Ireland* classifies habitats according to a hierarchical framework with Level 1 habitats representing broad habitat groups, Level 2 representing habitat sub-groups and Level 3 representing individual habitats. The field survey focused on identifying Level 3 habitats. The DAFOR scale was also used to characterise the vegetation within each habitat. This scale refers to plant species in terms of dominance, abundance, frequency, occasional and rare (DAFOR). In addition any evidence or records of fauna activity within or adjacent to the site were also noted during site surveys, which were undertaken during July 2014.

2.1.2 Ecological Evaluation

The evaluation of the ecological resource was assessed according to the National Roads Authority's *Site Evaluation Scheme* (outlined in *Table 1* below) as described in the NRA's *Guidelines for the Assessment of Ecological Impacts of National Road Schemes*. These criteria evaluate the significance of an ecological resource within a defined geographical context. The Institute of Ecology and Environmental Management's (IEEM) *Guidelines for Ecological Impact Assessment* and the *Ratcliffe Criteria*, which also evaluate ecological resources according to a defined geographical context, were also taken into account during the baseline ecological evaluation.

Table 1 Site Evaluation Scheme

Rating	Qualifying Criteria
A	**Internationally Important** Site designated (or qualifying for designation) as Special Area of Conservation (SAC) or Special Protection Area (SPA) under the EU Habitats or Birds Directives. Undesignated sites containing good examples of Annex I priority habitats under the EU Habitats Directive. Major salmon river fisheries. Major salmonid (salmon, trout or char) lake fisheries.
B	**Nationally Important**

Rating	Qualifying Criteria
	Sites or waters designated or proposed as a Natural Heritage Area (NHA) or statutory Nature Reserves. Undesignated sites containing good examples of Annex I habitats (under EU Habitats Directive). Undesignated sites containing significant numbers of resident or regularly occurring populations of Annex II species under the EU Habitats Directive or Annex I species under the EU Birds Directive or species protected under the Wildlife (Amendment) Act 2000. Major trout river fisheries. Water bodies with major amenity fishery value. Commercially important coarse fisheries.
C	**High Value, locally important** Sites containing semi-natural habitat types with high biodiversity in a local context and a high degree of naturalness, or significant populations of locally rare species. Small water bodies with known salmonid populations or with good potential salmonid habitat. Sites containing any resident or regularly occurring populations of Annex II species under the EU Habitats Directive or Annex I species under the EU Birds Directive. Large water bodies with some coarse fisheries value.
D	**Moderate Value, locally important** Sites containing some semi-natural habitat or locally important for wildlife. Small water bodies with some coarse fisheries value or some potential salmonid habitat. Any water body with unpolluted water (Q-value rating 4-5).
E	**Low Value, locally important** Artificial or highly modified habitats with low species diversity and low wildlife value. Water bodies with no current fisheries value and no significant potential fisheries value

3 Receiving Environment

3.1 Site Location

The DUB 53 site is located within the Greenhill Road Industrial Estate in Tallaght, South County Dublin (see Figure 1 for site location). The surrounding area is characterised by a mix of industrial and residential land cover. The DUB 53 site is situated within a large industrial estate that supports little natural vegetation. Parkland with grassland and woodland habitats occur within the wider area to the northeast and south of the site.

The vegetation occurring within the site is ornamental in nature and mainly consists of shrubs. Some semi-mature ornamental trees occur to the south of the site. No large mature trees occur to the north or west of the site.

3.2 Field Survey Results

The terrestrial habitats recorded within or adjacent to the survey area are presented in the Habitat Map, *Figure 2*. Appendix 1 provides a photographic record of the site. Five broad (Level 1) habitat groups were identified within the survey area which included the extent of the site and areas immediately adjacent to the site. The five broad habitats groups are as follows:

1. Grassland grassland
2. Woodland and scrub;
3. Made Ground

Each of the individual habitats (Level 3 habitats) making up these broad groups are described below.

3.2.1 Grassland

The grassland habitat occurring within the site consists of amenity grassland (GA2)

A small area of amenity grassland occurs at the northern side of the site, near the main entrance. This grassland is kept at a low sward and is of low diversity. Grasses associated with this grassland include *Dactylis glomerata, Poa pratensis, Poa trivialis, Holcus lanatus* and *Anthoxanthum odoratum*. Some herbs occurring included *Ranunculus repens, Bellis perennis, Plantago lanceolata,* and *Senecio jacobaea.*

This habitat is of low ecological value.

3.2.2 Made Ground

The made ground habitats occurring within the site consist of buildings and artificial pavements (ED1).

The footprint of the proposed site entirely consists of buildings and artificial surfaces. The artificial surfaces consist of paved areas and buildings.

Some ruderal vegetation occurs along the margins of paved areas. Species noted include *Buddleja;* ragwort *Senecio jacobaea;* rosebay willow *Chamerion angustifolium;* sorrel *Rumex acetosa;* daisy *Bellis perennis;* common fumitory *Fumaria officinalis;* meadow thistle *Cirsium arvense;* creeping buttercup *Ranunculus repens;* dandelion *Taraxicum officinalis; Plantago lanceolata;* and nettle *Urtica diocia*. Grasses occurring along margins include *Dactylis glomerata, Poa pratensis* and *Holcus lanatus.*

The main building at the DUB 53 site is a large industrial unit. It is a two-storey building with the upper floor consisting of former office space while the majority of the ground floor supports large open manufacturing areas.

The southern section of the upper floor contains an extensive air conditioning system and building services. Gang-plank walkways provide access throughout this area of the site.

The building's roof is constructed of corrugated material. A large corrugated cooling tower structure occurs to the north of the building.

A small fire water pump house occurs to the northeast of the main building.

The paved area and buildings within the site do not support natural stands of vegetation or fauna (see Section 3.4 below) and are considered to be of low ecological value.

3.2.3 Woodland and Scrub

The woodland and scrub habitats occurring within the site consist of treelines (WL2).

The treelines occurring around the perimeter of the site consist of ornamental species such as *Acer spp.* along with ash (*Fraxinus excelsior*) and Leyland cypress (*Cupressiforme leylandii*).

These treelines are not connected to the wider landscape, support a high proportion of exotic species and are consisted to be of low ecological value.

3.3 Fauna

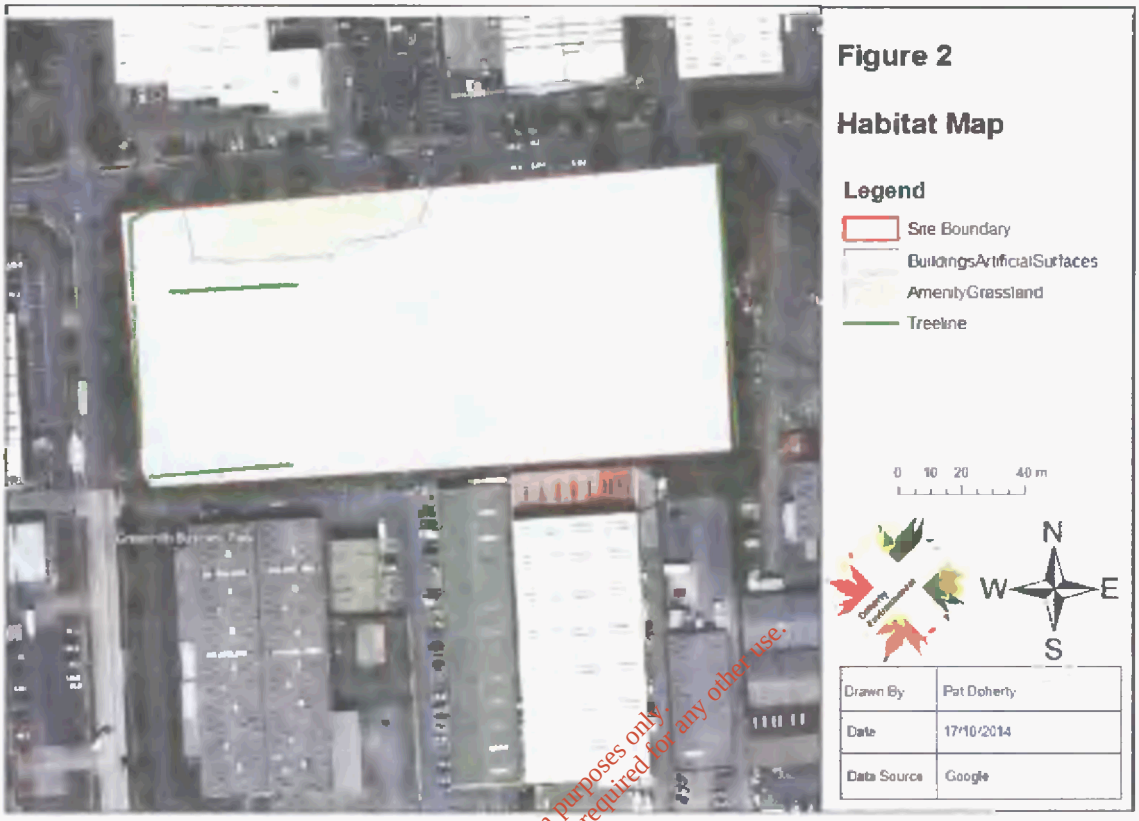
No records or evidence of mammal activity was recorded on site.

An assessment of the site's potential support bats and the results of detailed surveys investigating the presence of roosting or foraging bats at the site was undertaken in July 2014. This report concluded that the site does not support roosting bats and does not function as a foraging habitat for bats.

It is likely that pest species such as brown rat occur within the site.

Bird activity was low around the perimeter of the site in association with treelines. No nests were noted during field surveys.

Access to the building interior was limited and no nests were noted inside the building. Similarly no nests, such as house martins, were noted on the exterior of the building.



4 Site Evaluation

The site contains habitats of low ecological value that do not support natural vegetation community of any conservation value. The site supports a very restricted fauna and no protected species are associated with it.

Overall the site is low value and no ecological or conservation interest.

5 Potential Risks to Ecological Receptors

No sensitive ecological receptors are located within or immediately adjacent to the site. A tributary of the River Poddle, approximately 350m to the south of the site, is the only potentially sensitive receptor in the surrounding area. Surface water generated at the proposed site currently discharges, via a piped outfall, to this stream.

As part of the proposed development the surface water management measures will be implemented which will improve the quality of surface water being discharged from the site to this stream. This will include the upgrading of the existing infrastructure with the implementation of hydrocarbon interceptor and SurfSep pollutant trap.

The implementation of these measures will improve surface water management on site and result in an improvement in the quality of stormwater being discharged from the site to the receiving watercourse to the south.

6 Potential Risks to Designated Conservation Areas

The proposed site is not subject to any nature conservation designations. No statutory designations occur within a 5km radius of the site. A tributary of the River Poddle is located 350m to the south of the site. This watercourse merges with the main channel of the River Poddle at Tymon Park, approximately 1.5km downstream. The River Poddle eventually discharges to the River Liffey which in turn drains to European Sites at Dublin Bay.

The discharge of stormwater from the proposed site to this watercourse establishes a hydrological pathway between the site and European Sites. However the proposed development will not present a risk of likely significant effects to these European Sites due to the proposed improvements to surface water management on site, which will contribute to improved stormwater quality discharges downstream and the remote distance of the proposed site from the European Sites at Dublin Bay which are located over 12km downstream.

7 Recommendations

No recommendation are outlined for this proposed development.

References

Fossitt J. A. (2000). *A Guide to Habitats in Ireland*. Heritage Council.

Heritage Council (2002). *Draft Habitat Survey Guidelines*. Hertiage Council.

IEEM (2006). *Guidelines for Ecological Impacts Assessment*. IEEM.

NRA. (2006b). *Guidelines for the protection and preservation of trees, hedgerows and scrub prior to, during and post construction of national road schemes*. National Roads Authority.

Appendix 1: Photographic Record

Plate 1: View of the eastern side of the site with paved area and ruderal vegetation

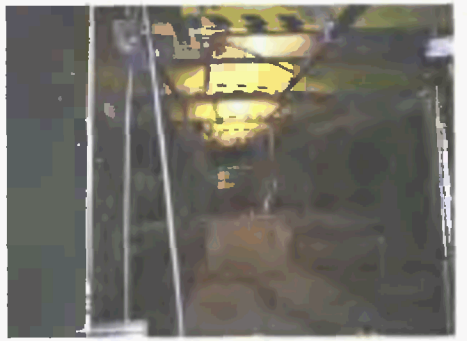


Plate 2: View of services area at the southern side of the 1st floor. Note high light levels.

Plate 3: View of the main building from the north east.

Plate 4: View of the out-house boiler

Plate 5: View of a potential access point to the south of the building.

Plate 6: View of the treeline along the front elevation of the main building