



**Ecological Assessment Report
Site at
Cherry Orchard
Dublin 10**

October 2023

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For
Land Development Agency**

Site Visits 06/07/2022, 07/07/2022, 10/07/2022, 11/07/2022, 23/05/2023, 24/05/2023

1. SITE DESCRIPTION

1.1 Site Location

Introduction

The purpose of this ecological assessment is to provide a baseline survey of the diversity of flora and fauna (biodiversity) of the site at Cherry Orchard, Dublin 10.

The site for this proposed development is heavily degraded with a mosaic of habitats. No nationally important or internationally important habitats or species are currently found on site.

Description of project and project area characteristics:

The proposed development (GFA of c. 66,399sqm) involves the construction of a residential led mixed use scheme across 16 blocks contained within 9 buildings ranging in height from 4 to 15 storeys. The development includes the provision of 708no. residential apartments comprising 547no. cost rental and 161no. social / affordable units (28no. studio units, 263no. one-bed units, 368no. two-bed units and 49no. three-bed units, together with a convenience retail supermarket (2,523sq.m GFA), 7no. retail / commercial units (totalling 373sq.m GFA), community, arts and cultural spaces delivered across 13no. community and arts / cultural units (totalling 1,222sq.m GFA), and associated external events space and community gardens (1,157sq.m) and a childcare facility (672sq.m GFA) with associated external playing space (200sq.m) and all ancillary accommodation including sub stations, plant, refuse stores, cycle stores, and metre / comms rooms. The proposed development also includes the provision of landscaped public open space of 6,123 sq. m. including a public plaza, play space, outdoor fitness trail, communal amenity space of 5,596 sq. m. Private open space for the apartment units is achieved through the provision of balconies or terraces for all individual apartments.

The proposed development will also involve the provision of sufficient car parking (including accessible car parking) and bicycle parking spaces at undercroft and surface level throughout the development. The development will also provide for all associated ancillary site development infrastructure including site clearance, boundary

treatment, associated public lighting, internal roads and pathways, ESB substations, switch room, water tank rooms, storage room, meter room, sprinkler tank room, comms room, bin storage, bicycle stores, green roofs, hard and soft landscaping, play equipment, attenuation area, green and blue infrastructure including green roofs, PV panels and all associated works and infrastructure to facilitate the development including connection to foul and surface water drainage and water supply. Please refer to the statutory notices for full and complete description of the proposed development.



Figure 1- Aerial View of Site

Habitats were identified using "Guide to Habitats in Ireland", Fossitt J., Heritage Council 2000. The site has the following habitat classifications; There one main habitat within the study area

Mosaic of Dry Meadows and Grassy Verges (GS2), Recolonising Bare Ground (ED3). There are associated hedgerows (WL1) with an area of Scrub(WS1) to the east across the road .

Fieldwork undertaken to provide the data for this report was spread throughout the calendar year and over several years (Site Visits 06/07/2022, 07/07/2022, 10/07/2022, 11/07/2022, 23/05/2023,24/05/2023) with winter bird counts carried out on 05/12/2022 thus avoiding the limitations caused by inappropriate timing of fieldwork.

Mosaic habitat :

Holly (*Ilex aquifolium*)

Elder (*Sambucus niger*)

Bramble (*Rubus* spp)

Elm suckers.(*Ulmus* spp,)

Ash (*Fraxinus excelsior*)

Willow (*Salix* spp.)

Lonicera spp. hedge.

Sycamore. (*Acer pseudoplatanus*)

Holly (*Ilex* spp)

Clevers, (*Galium aparine*),

Creeping buttercup, (*Ranunculus repens*,

Chickweed, (*Stellaria media*),

Nettle, (*Urtica dioica*),

Dock, (*Rumex obtusifolius*),

Bindweed, (*Convolvulus arvensis*),

Thistle, (*Cirsium arvense*),

Bramble, (*Rubus fruticosus*),

Sun spurge,(*Euphorbia helioscopia*),

Ribwort Plantain (*Plantago lanceolata*),

Dandelion,(*Taraxacum officinale*),

Hawks beard,(*Crepis capillaries*),

Clover, (*Trifolium pratense*),
Herb Robert, (*Geranium robertianum*),
Groundsel, (*Senecio vulgaris*),
Cranesbill, (*Geranium dissectum*),
Rose bay willow herb, (*Epilobium angustifolium*),
Daisy, (*Bellis perennis*),
Ivy (*Hedra helix*),
Fathen (*Chenopodium album*)
Fumitory (*Fumaria officinalis*),
Lesser Celidine (*Ranunculus ficaria*),
Fools Parsely (*Aethusa cynapium*),
Buddleja,
Yarrow, (*Achillea millefolium*),
Ragwort (*Senecio jacobaea*),
Hogweed (*Heracleum sphondylium*),
Burdock (*Artium lappa*)
Teasel (*Dipsacus fullonum*)
Alder (*Alnus glutinosa*)
Birch (*Betula pubescens*)
Silverweed (*Potentilla anserine*)
Blackthorn (*Prunus spinosa*)
Meadowsweet (*Filipendula ulmaria*)
Oxford Ragwort (*Senecio squalidus*) Along the boundary with the railway.
Willow (*Salix* spp)
Marsh Orchid (*Dactylorhiza* spp.)
Pyramidal Orchis (*Anacamptis pyramidalis*)
Sedges (*Carex* spp)
Rushes (*Juncus* spp.)
and grasses including; Yorkshire fog (*Holcus lanatus*) Scutch (*Elymus repens*),
Annual meadow grass (*Poa annua*), Cocksfoot (*Dactylis glomerata*) and False oat
(*Arrhenatherum elatius*).

This is a heavily modified habitat as a result of human interference. The mosaic nature of the habitat stems from the years of neglect and has resulted in the encroachment of hedgerow into the meadow habitats. The grasses within the study area are all lodged and ungrazed.

The orchids are found clustered around the western boundary with the motorway in the recolonising bare ground section of the site at GR IO 07758 32794.

The sedges and rushes appear to occupy an area that at some stage was waterlogged within the recolonising bare ground.

The area currently bounding the railway track is characterised by Buddleia and Alder (*Alnus* spp.)

The scrub Area is characterised by Willow (*Salix* spp.), Buddleia and Mallow (*Malva sylvestris*) and is located across the road and east of the main site.

The boundary with the motorway is a substantial hedgerow with dense tree and ground flora. This area is outside the boundary of the development site.

2. Fauna

Fauna was identified by visual, and spraint evidence and the probable presence of certain species was ascertained by the availability of suitable habitat. Terrestrial vertebrate and invertebrate fauna on-site can be assumed to be mobile and capable of movement between the various habitats.

2.1 Invertebrates

Cinnabar Moth

Shield Bug (*Acanthasomosa haemorrhoidale*)

Earwig (*Forficula auricularia*)

Honey Bee (*Apis mellifera* spp.)

Ladybird (*Coccinell 7-punctata*)

Garden Spider (*Araneus diadematus*)

Woodlouse (*Oniscus asellus*)

Orange Tipped Butterfly (*Anthocaris cardamines*)

This is not an exhaustive list of the invertebrate species and is merely representative of the species found during field work.

2.2 Birds

Pied wagtail (*Motacilla alba*)

Thrush (*Turdus philomelos*)

Blackbird (*Turdus merula*)

Blue Tit (*Parus caeruleus*)

Great Tit (*Parus major*)

Chaffinch (*Fringilla coelebs*)

Greenfinch (*Carduelis chloris*)

Magpie (*Pica pica*)

Jackdaw (*Corvus monedula*)

Hooded Crow (*Corvus corone*)

Rook (*Corvus frugilegus*)

Sparrow Hawk (*Accipiter nisus*)

Robin (Erithacus rubecula)
Starling (Sturnus vulgaris)
Wren (Troglodytes troglodytes)
Dunnock (Prunella modularis)
Woodpigeon (Columba palumbus)
Feral Pigeon (Columba livia)
Goldcrest (Regulus regulus)
Swallow (Hirundo rustica) ,
Greenfinch (Carduelis chloris)
House Sparrow (Passer domesticus)
Tree Creeper (Certhia familiaris)
Meadow pipit (Anthus pratensis) nesting in the recolonizing bare ground
Herring Gull (Larus argentatus)
Buzzard (Buteo buteo)

Were all seen, heard.

Brent Geese are unlikely to forage in the area as they need cropped grass as a food source and the hedgerows present will prevent access to the open area for a species that need a glide path to land.

2.3 Mammals

No suitable roosting areas were seen for Bats (Chiroptera) within the site but a foraging presence is present See bat survey G. Tobin **06/07/2022, 07/07/2022, 23/05/2023 and 24/05/2023**

. Pipistrelle (Pipistrellus pipistrellus)(Red Data Book 2,Hab. Dir. 4,Bern

Convention 3) C 20 foraging/commuting along southern boundary.

Soprano Pipistrelle (P. pygmaeus) (as per common)

Leislars Bat(Nyctalus leisleri)(Red Data Book 2,Hab. Dir. 4,Bern Convention3)

C. 30 Seen commuting/foraging along southern boundary.

Fox (Vulpes vulpes) denning within the site

Rat (Rattus norvegicus)

Hedgehog (Erinaceus europaeus) (Red Data Book 2,Bern Convention 3)

Field mouse (Apodemus sylvaticus)

Pygmy shrew (*Sorex minutus*)

Rabbit (*Oryctolagus cuniculus*)

Stoat (*Mustela erminea*)

Can all be expected on-site.

No badger setts were found and the absence of available forage areas would suggest that badgers are absent as a breeding species in the locality.

3. A description of the proposed development

The project consists of the construction of medium and high density residential development with some commercial and public realm works at Cherry Orchard, Dublin 10.

4. Identification of the likely significant impacts, positive and negative, deriving from the proposed development.

4.1 Flora

Little significant negative impact to local flora will occur because these habitats, on site, have been heavily modified and are not representative of common local habitats.

4.2 Terrestrial Fauna

Fauna in the footprint of the development is likely to be adversely affected during works. Any fauna will be forced to relocate within the site or off-site while work is on-going. There is ample alternative habitat available off-site. There are no animals, plants or habitats of conservation concern, either nationally or internationally currently present on site.

4.3 Adjoining urban land

There is unlikely to be any significant impacts, positive or negative on adjoining lands.

5. Mitigation measures and objectives

These mitigation measures are recommended to provide best practice guidelines for the proposed construction on site. They are not applicable to measures to prevent potential adverse impacts on Natura 2000 sites within the Zone of Influence. The AA screening has shown that there is no mechanism by which Natura 2000 sites can be adversely impacted.

- To meet the requirements of the surface water policy of Dublin City Council, the surface water will be based on an attenuation techniques, the surface water will be attenuated on site by the use of permeable paving, together with necessary attenuation tanks. Surface water collected will pass through a hydrocarbon interceptor consequentially there will only be a small increase in quantity of water discharging into Dublin Bay. Foul Water will be piped to the Irish Water Treatment Works.
- The area demarcated by Grid reference GR IO 07758 32794 will remain undeveloped post construction to protect the orchid rich soils. An area running the length of the motorway hedgerow boundary and 5 metres in depth shall form a green area post development and will receive no fertilizers or other artificial inputs. No shrub flora will be planted in this area and mowing of the grassland will occur only after seed dispersal has occurred in late July/ early August annually.
- Lighting has increased dramatically over the last number of years as a result of many new developments. This includes aesthetic lighting of bridges, monuments and buildings, flood lighting of sports grounds, street and road lighting and security lighting of urban and rural areas to name but a few. Lighting can impact on bats' roosting sites, commuting routes and foraging areas. Contrary to common belief, bats are not blind. While bats tend to rely on a type of sonar, known as echolocation, for orientation and hunting during the hours of darkness, vision is still an important sense for bats. When bats emerge from roosts early in the evening, they tend not to echolocate but rely on eyesight to fly from the roost to adjoining treelines or hedgerows. Various studies have shown that bats' eyesight works best in dim light conditions. Where there is too much luminance, bats' vision can be reduced resulting in disorientation. While light sensitivity varies between species, bats tend to

have a higher tolerance for red visual light than white light. Short wave frequency (UV) light is most disturbing for bats. This is due to the fact that bats have a higher proportion of rods in their retina compared to cones. The rods allow greater absorption of light in dim conditions. Too much luminance at bat roosts may cause bats to desert a roost. Light falling on a roost exit point can delay bats from emerging and miss peak levels of insect activity at dusk. Any delays of emergence can reduce feeding periods. Lighting can also disturb bats' feeding behaviour. Many night flying insects are attracted to lights especially those lamps that emit UV light. A single source of light in a dark area can cause local insect populations to congregate in concentrations around the light source. While some Irish bat species such as Leisler's bats will opportunistically feed on such insect gatherings, the majority of Irish bat species are too sensitive to such light sources and suffer from insect populations being reduced in traditional feeding areas. In addition, artificial lighting can increase the chances of bats being preyed on. Lighting can be particularly harmful to bat populations along river corridors, woodland edges, along hedgerows and treelines and at lake edge.

Types of light Low Pressure Sodium (SOX) – this light (typically orange light) is emitted at a single wavelength with a very low amount of UV. Therefore very few insects are attracted to this light source and it has a minimal effect on bats. High Pressure Sodium (SON) – this light (typically pinkish-yellow light) is emitted over a slightly broader wavelength spectrum. It is a more intense light so attracts more insects and has a greater impact on bats. Metal Halide & Mercury vapour– these are white light sources that emits light at wavelengths across the colour spectrum and emits high levels of UV. These light types can attract high levels of insects and because it is a close match to daylight has a greater impact on bats. Metal halide typically comes in three types: Quartz arc tube; Ceramic arc tube and Cosmo ceramic. Luminary (Light) accessories Shields – these can be mounted at the front or back of luminaire. Masking – by painting a section of the luminaire protectors, light will be blocked from penetrating through. Louvres – these can be either internal or external rows of slates angled to block light in a certain direction.

- Avoid lighting along important commuting routes. Avoid the use of mercury or metal halide lamps Minimise light spills using shields, masking & louvres Keep light columns as low as possible Restrict lights to ensure that there are dark areas Restrict lights to ensure that there are dark hours.
- Sensor lighting to reduce energy wastage
- Use of planting to reduce impacts of lighting
- Use of demountable columns
- Screening to reduce impacts of lighting
- Assessment of lighting regime after installation
- Greater use of the solar clock to control timing of lighting

7. Conclusion

The impact should be low and localised in the long term,

- No significant impact on water quality is predicted to occur.

Although there may be short-term disturbance during the work phase no significant impacts on birds or important mammals are expected to occur.

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Plate 1 Site to south



Plate 2 Orchid rich soil along motorway boundary



Plate 3 Mosaic Habitat.

