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An Ecological Assessment of Site at

Cherry Orchard Point - Phase 2

, Dublin 10.Gerry Tobin BSC.(ZOOLOGY) MA. Ecological Consultant

Site Visits 06/07/2022, 07/07/2022, 10/07/2022, 11/07/2022, 23/04/2023, 24/04/2023, 22/04/2024, 23/04/2024 10/11/2024

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 import habitats or species are currently found on site.

Description of project and project area characteristics

Proposed development on a site of c. 3.185 hectares, located on lands at CherryOrchard, Dublin 10 (known as Development Site 4 in the Park West Cherry Orchard Local Area Plan 2019). The site is bound by Cloverhill Road to the north, Cedar Brook Avenue and Park West Avenue to the east, Park West and Cherry Orchard rail station to the south east, the approved Phase 1 development (Bord. Ref: ABP-318607-23) to the south, and the M50 motorway to the west. The development will consist of the construction of a residential scheme containing 137no. residential dwellings (comprising 31no. 2-bedroom units, and 106no. 3-bedroom units) through a mixture of houses, duplex units and own-door apartments. The proposed development will include a new access road connecting to the entrance point at Park West Avenue as approved under the Phase 1 scheme, new internal streets, landscaped public and communal open space, a new pedestrian connection to Cloverhill Road and all associated site and development works. The proposed development represents Phase 2 of the overall

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planned development for Development Sites 4 and 5 of the LAP lands. Phase 1 of the overall planned development was granted permission in July 2024 (Bord. Ref: ABP-318607-23). The proposed development (GFA of c. 13,280sqm) involves the construction of 137no. dwellings in a mix of houses, duplexes and own-door apartments ranging in height from 2 to 3 storeys comprising 31no. two-bed units (9no. two-bed three-person and 22no. two-bed four-person) and 106no. three-bed units (13,015 sqm total residential floor area), and all ancillary accommodation including bike and bin stores and ESB substation (265sqm total GFA). The proposed development also includes the provision of 2,133sqm landscaped public open space, in addition to 2,050sq.m of public open space as approved under the Phase 1 permission (Bord. Ref: ABP-318607-23). The total public open space provided for Phase 2 totals 4,183 sqm (12.34% of the net site/development area (3,390ha) of Phase 2 lands). Communal open space for the duplex and apartment units is provided across three dedicated communal amenity areas (602sq.m in total area) with private open space to serve the proposed units to be delivered through a mixture of rear gardens and terraces.

The proposed development will also involve the provision of 141no. car parking spaces at curtilage and street level throughout the development, of which 7no. are accessible spaces and 71no. EV charging points (representing 50% of the total parking spaces). A total of 306no. bicycle parking spaces, of which 18no. are visitor spaces accommodated through a mixture of bike stores and external cycle parking stands. A total of 7no. motorbike parking spaces are also provided. Vehicular, pedestrian and cycle access routes to serve the proposed development are provided via the approved Phase 1 entrance to the east of the site along Park West Avenue with further connections provided to the north and to the south to the approved Phase 1 scheme. Provision is also made for the installation of a signalised access junction with associated traffic lights and below ground infrastructure and the relocation of bus stop and shelter along Park West Avenue. The need to provide a signalised junction requires minor alterations to the entrance to the development including adjustment to the paving as previously approved under the Phase 1 scheme (no further amendments to that permission are proposed under this application.) The proposed development also includes the provision of off-street cycle lanes along Park West Avenue that will provide direct

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connectivity to the Rail Station to the southeast and Cherry Orchard Park to the east.

The development will also provide for all associated ancillary site development works including site clearance, boundary treatment, associated public lighting, internal roads and pathways, bin and bike stores, ESB substation, hard and soft landscaping, play equipment, and all associated works and infrastructure to facilitate the development including connection to foul and surface water drainage and water supply.

Habitats were identified using “Guide to Habitats in Ireland”, Fossitt J., Heritage Council 2000. The site has the following habitat classifications; There’s 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, 23/04/2023, 24/04/2023, 22/04/2024, 23/04/2024 10/11/2024

with winter bird counts carried out on 05/12/2022 and 10/11/2024 thus avoiding the limitations caused by inappropriate timing of fieldwork.

Mosaic habitat :

Holly (Ilex aquilfolium)

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)

Cleevers, (Galium aparine),

Creeping buttercup, (Ranunculus repens,

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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, (Senicio 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.

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Willow (Salix spp)
Marsh Orchd (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)

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Earwig (Forficula auricularia)
Honey Bee (Apis mellifera spp.)
Ladybird (Coccinella 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. (Reference Natural England Research Report NERR005- Surveying Terrestrial and Fresh Water Invertebrates for Conservation Evaluation).

2.2 Birds

Pied wagtail (Motacilla alba)
Thrush (Turdus philomelos)
Blackbird (Turdus merula)
Blue Tit (Parus caerulus)
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 (Trogolodytes trogolodytes)
Dunnock (Prunella modularis)
Woodpigeon (Columba palumbus)
Feral Pigeon (Columba livia)
Goldcrest (Regulus regulus)
Swallow (Hirundo rustica) ,

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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. (See winter bird counts G. Tobin)

2.3 Mammals

No suitable roosting areas were seen for Bats (Chiroptera) within the site but a foraging presence was observed along the boundaries of the subject site. See bat survey G. Tobin **06/07/2022 and 07/07/20222, 23/05/2023, 24/05/2023, 23/04/2024, 24/04/2024** undertaken in compliance CIEEM and NPWS Guidelines.

. 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)
Leislers 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)
Pygmey shrew (Sorex minitus)
Rabbit (Orcytolagus cuniculus)
Stoat (Mustela erminea)
Can all be expected on-site.

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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 a medium density residential development at Phase 2 Cherry Orchard Point Cherry Orchard, Dublin 10. “

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

4.1 Flora

No 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 as the common local habitats are buildings and artificial surfaces. The subject site has been degraded by many years of neglect and consists primarily of ecologically unproductive fill.

4.2 Terrestrial Fauna

The Fauna identified during fieldwork as existing in the footprint of the proposed 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. Impacts will occur during construction and operational phases of the development. The impacts will be insignificant in the national and international context. There is ample alternative habitat available off-site along the motorway boundaries and in the Cherry Orchard Horse Project lands.

There are no animals, plants or habitats of conservation concern, either nationally or internationally currently present on site. No mitigation is required on the basis that the terrestrial fauna identified are not of significant national or international importance.

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4.3 Adjoining urban land

There is unlikely to be any significant impacts, positive or negative on adjoining urban lands from an ecological perspective.

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

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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

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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

Having considered provided a baseline survey of the diversity of flora and fauna (biodiversity) of the site at Cherry Orchard, Dublin 10 it has been shown that the the site for this proposed development is heavily degraded with a mosaic of habitats. No nationally important or internationally import habitats or species are currently found on site.

Bat species currently use the southern boundary of the site as a commuting route to forage elsewhere and are not vulnerable to this proposed development.
There are no mammal species of national or European conservation concern currently found on site

Furthermore, it has been shown that there are no annex ii bird species on site.

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The ecological impact from this prosed development 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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Appendix

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Plate 1 Site to south

Plate 2 Orchid rich soil along motorway boundary

Plate 3 Mosaic Habitat.