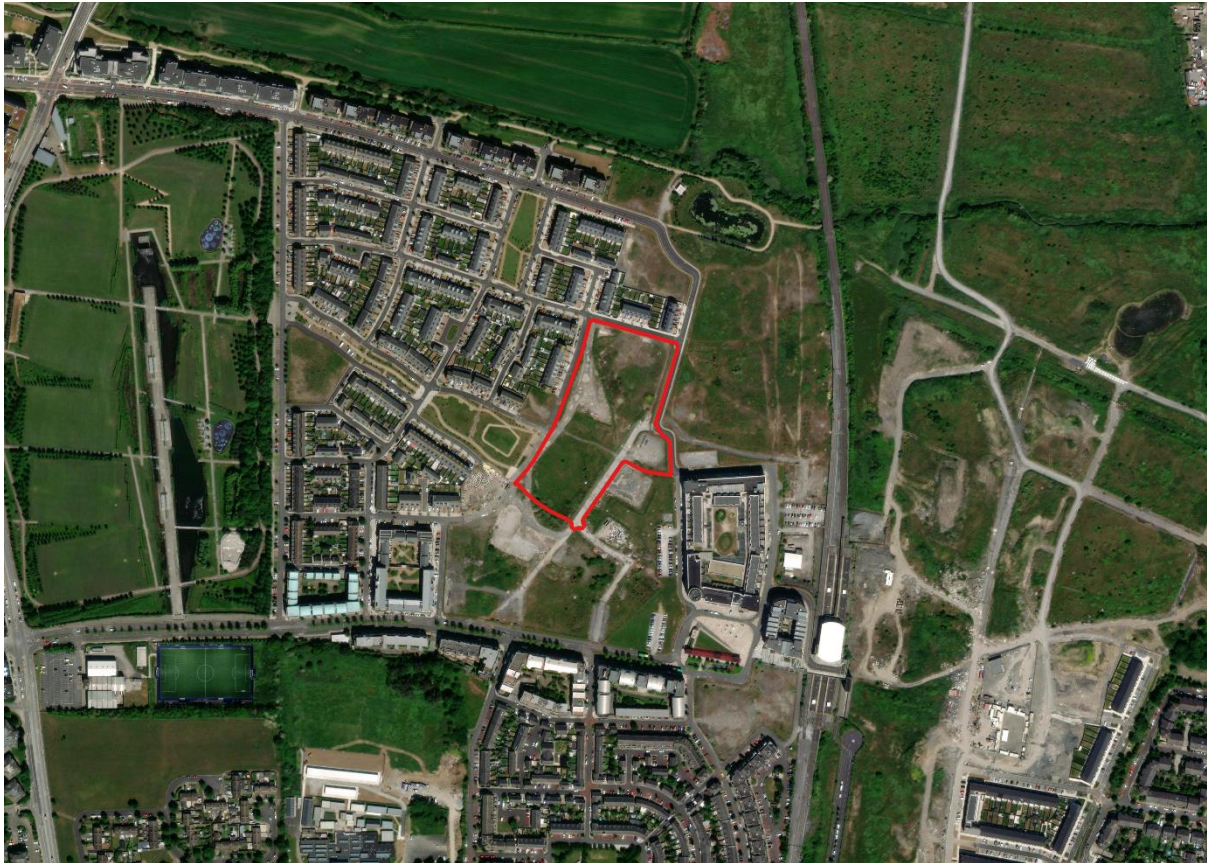


## Desktop Ecology Study for LRD Development of 408 no. Residential Units at Clongriffin, Dublin 13.



**30<sup>th</sup> July 2024**

**Prepared by:** Bryan Deegan (MCIEEM) of Altemar Ltd.

**On behalf of:** The Land Development Agency

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## Introduction

Altamar, Marine and Environmental Consultants has been retained to undertake a desktop ecology study and site visit to assess the ecological conditions for a proposed development site at Clongriffin, Co. Dublin. Altamar Ltd. was commissioned by the Land Development Agency to provide a preliminary ecological report (Ecological Appraisal) for the grounds in question. The following report provides a preliminary desktop ecological assessment for the proposed development site and follows the guidelines for Preliminary Ecological Appraisal outlined by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017). The subject site is seen in Figures 1 & 2.

## Scope of Service

The review included:

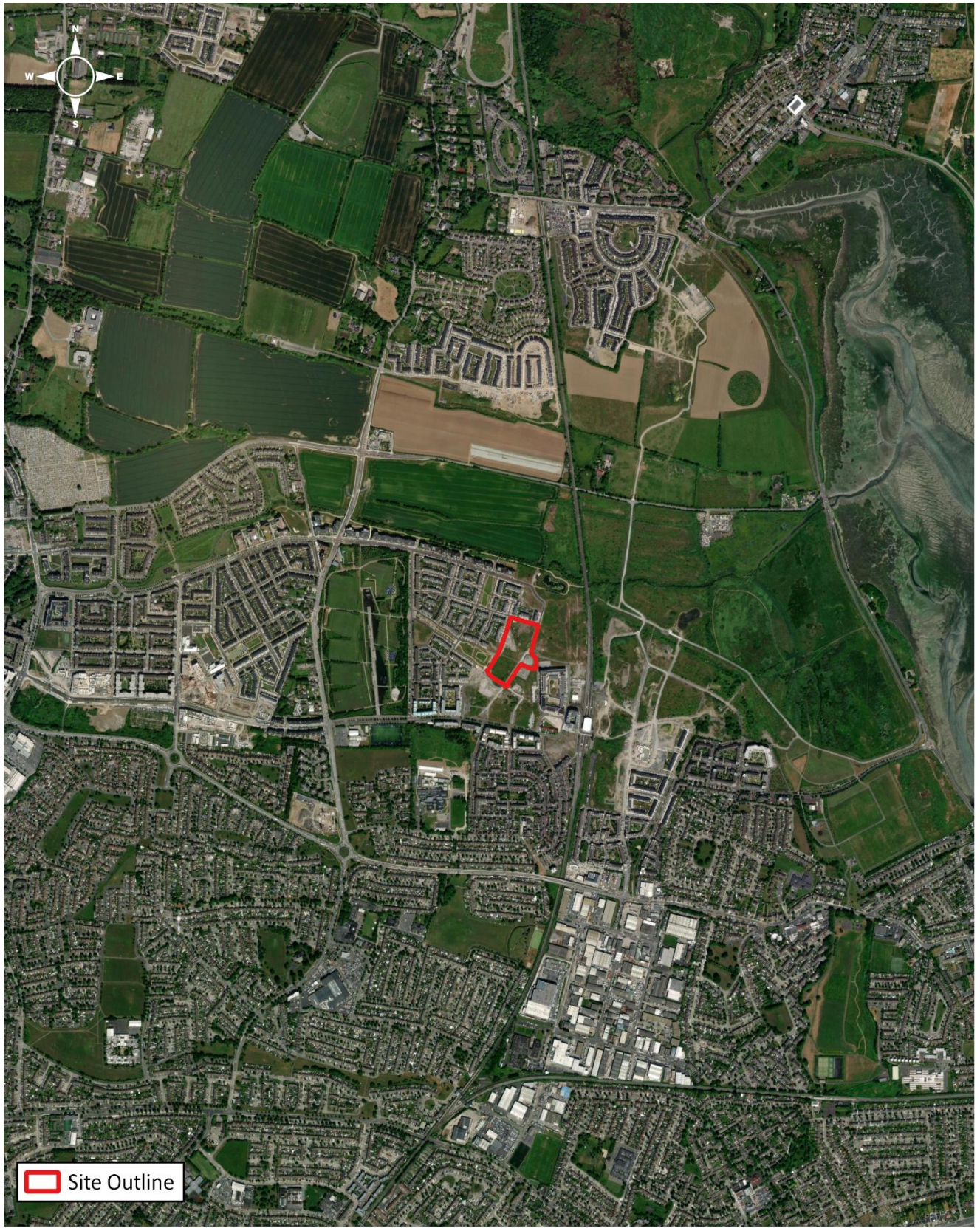
- Review available desktop information
- Identify any important environmental issues associated with the proposed development
- For identified issues, identify the potential risks or impact on the project in terms of consents and licenses, potential timings, need for avoidance, mitigation, restrictions etc.
- As outlined by the CIEEM (Preliminary Ecological Appraisal)
  - is to establish baseline conditions and determine the importance of ecological features present (or those that could be present) within the specified area, as far as is possible
  - is to establish any requirements for detailed/further surveys
  - is to identify key constraints to the project and make recommendations for design options
  - is to avoid significant effects on important ecological features/resources at an early stage
  - is to identify the mitigation measures as far as possible, including those that will be required, and those that may be required (based on results of further surveys or final scheme design); and
  - is to identify enhancement opportunities.

A site visit was carried out by Bryan Deegan (MCIEEM) on the 8<sup>th</sup> September 2023, which has informed the preparation of this report.

## Site Location and Description

The subject site is located in Clongriffin which is within the functional area of Fingal County Council and is approximately 9.5 kilometres to the northeast of Dublin City Centre and 5km to the east of the main Dublin – Belfast Road (M1/M50).

The proposed development site extends to approximately 2.2 ha in area, comprising of bare ground and artificial surfaces, with remnants of grassland and scrub plant species. There are no water courses or drainage ditches on, or directly adjacent to, the development site which could provide direct pathway to the Mayne River. The zoning for the proposed development can be seen in Figure 3.



0 0.25 0.5 0.75 1 1.25 1.5 km

Project: Blocks 5 & 6  
 Location: Clongriffin, Co. Dublin  
 Date: 12th April 2024  
 Drawn By: Frank Spellman (Altamar)

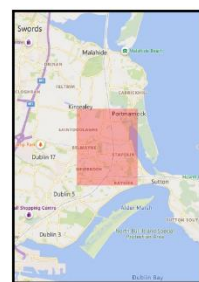


Figure 1. Site outline



 Site Outline

0 75 150 225 m

Project: Blocks 5 & 6  
 Location: Clongriffin, Co. Dublin  
 Date: 12th April 2024  
 Drawn By: Frank Spellman (Altemar)

**ALTEMAR**  
 Marine & Environmental Consultancy



**Figure 2. Site Outline**

## Watercourses

Following a desktop study of available EPA data, it was determined that the nearest watercourse to the subject site is the River Mayne, located 100m to the north of the subject site. This river feeds directly into Baldoyle Bay Ramsar, pNHA, SPA & SAC protected areas. The Mayne River is listed by the EPA as 'At Risk' of not reaching its objectives under the Water Framework Directive (WFD) and has been assigned 'Poor' water quality status. There are another two rivers within 5km of the site, The Santry River (2.8km) and The Sluice River (1.4km). There is also a minor stream at Howth (4.8km) within the 5km boundary. There is no direct hydrological pathway from the subject site to any of these waterways.

## Historic Records of Biodiversity

The National Biodiversity Data Centre's online viewer was consulted in order to determine the extent of biodiversity and/or species of interest in the area. First, an assessment of the site-specific area was carried out by generating a report based on the site outline, and it was found that there is no historical or current record of designated species here. Following this, a 2km<sup>2</sup> grid was assessed (reference number Q24F) based on Ordnance Survey Ireland (OSI) Irish Grid classification which encompasses the entire site outline plus its immediate surrounds. The results are presented below in Table 4:

**Table 4.** Table of Species, NBDC

Date of last record	Species name	Designation
11/09/2022	Eastern Grey Squirrel ( <i>Sciurus carolinensis</i> )	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> High Impact Invasive Species    Invasive Species: Invasive Species >> EU Regulation No. 1143/2014    Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
31/12/2017	Giant Hogweed ( <i>Heracleum mantegazzianum</i> )	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> High Impact Invasive Species    Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
29/06/2023	Harlequin Ladybird ( <i>Harmonia axyridis</i> )	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> High Impact Invasive Species    Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
06/06/2017	Butterfly-bush ( <i>Buddleja davidii</i> )	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> Medium Impact Invasive Species
06/06/2017	Sycamore ( <i>Acer pseudoplatanus</i> )	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> Medium Impact Invasive Species
21/08/2013	Jenkins' Spire Snail ( <i>Potamopyrgus antipodarum</i> )	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> Medium Impact Invasive Species
27/06/2018	European Rabbit ( <i>Oryctolagus cuniculus</i> )	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> Medium Impact Invasive Species
07/01/2012	European Otter ( <i>Lutra lutra</i> )	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex II    Protected Species: EU Habitats Directive >> Annex IV    Protected Species: Wildlife Acts
09/08/2012	Soprano Pipistrelle ( <i>Pipistrellus pygmaeus</i> )	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex IV    Protected Species: Wildlife Acts
16/05/2018	Common Frog ( <i>Rana temporaria</i> )	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex V    Protected Species: Wildlife Acts
18/07/2013	Eurasian Pygmy Shrew ( <i>Sorex minutus</i> )	Protected Species: Wildlife Acts
26/03/2020	West European Hedgehog ( <i>Erinaceus europaeus</i> )	Protected Species: Wildlife Acts

Date of last record	Species name	Designation
11/12/2022	Little Egret ( <i>Egretta garzetta</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex I Bird Species
11/12/2022	Dunlin ( <i>Calidris alpina</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex I Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
04/01/2003	Short-eared Owl ( <i>Asio flammeus</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex I Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Rock Pigeon ( <i>Columba livia</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species
31/07/1991	Common Pheasant ( <i>Phasianus colchicus</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section I Bird Species
31/12/2011	Common Wood Pigeon ( <i>Columba palumbus</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section I Bird Species
11/12/2022	Mallard ( <i>Anas platyrhynchos</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section I Bird Species
11/12/2022	Eurasian Teal ( <i>Anas crecca</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section II Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
11/12/2022	Eurasian Wigeon ( <i>Anas penelope</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section II Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Common Snipe ( <i>Gallinago gallinago</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section III Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Eurasian Woodcock ( <i>Scolopax rusticola</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section III Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List

Date of last record	Species name	Designation
13/12/2022	Eurasian Curlew ( <i>Numenius arquata</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section II Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
13/12/2022	Northern Lapwing ( <i>Vanellus vanellus</i> )	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section II Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
31/12/2011	Barn Swallow ( <i>Hirundo rustica</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Black-tailed Godwit ( <i>Limosa limosa</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
11/12/2022	Brent Goose ( <i>Branta bernicla</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
07/05/2021	Common Kestrel ( <i>Falco tinnunculus</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
07/05/2021	Common Linnet ( <i>Carduelis cannabina</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
11/12/2022	Common Shelduck ( <i>Tadorna tadorna</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Common Starling ( <i>Sturnus vulgaris</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/07/1991	Common Swift ( <i>Apus apus</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
11/12/2022	Eurasian Oystercatcher ( <i>Haematopus ostralegus</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/07/1991	Eurasian Tree Sparrow ( <i>Passer montanus</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
11/12/2022	Great Black-backed Gull ( <i>Larus marinus</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
05/04/2016	Great Cormorant ( <i>Phalacrocorax carbo</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	House Martin ( <i>Delichon urbicum</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	House Sparrow ( <i>Passer domesticus</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List



Date of last record	Species name	Designation
31/12/2011	Mew Gull ( <i>Larus canus</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
11/12/2022	Mute Swan ( <i>Cygnus olor</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
09/05/2020	Northern Wheatear ( <i>Oenanthe oenanthe</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
01/03/2021	Sky Lark ( <i>Alauda arvensis</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/07/1991	Spotted Flycatcher ( <i>Muscicapa striata</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
01/03/2021	Stock Pigeon ( <i>Columba oenas</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
11/12/2022	Black-headed Gull ( <i>Larus ridibundus</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
11/12/2022	Common Redshank ( <i>Tringa totanus</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
11/12/2022	Herring Gull ( <i>Larus argentatus</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
11/07/2019	Yellowhammer ( <i>Emberiza citrinella</i> )	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
31/12/1991	Meadow Barley ( <i>Hordeum secalinum</i> )	Threatened Species: Endangered
02/06/2021	Small Blue ( <i>Cupido minimus</i> )	Threatened Species: Endangered
13/08/2021	Wall ( <i>Lasiommata megera</i> )	Threatened Species: Endangered
06/06/2017	Glebionis segetum	Threatened Species: Near threatened
27/08/2021	Grayling ( <i>Hipparchia semele</i> )	Threatened Species: Near threatened
27/06/2021	Small Heath ( <i>Coenonympha pamphilus</i> )	Threatened Species: Near threatened
04/04/2023	Large Red Tailed Bumble Bee ( <i>Bombus (Melanobombus) lapidarius</i> )	Threatened Species: Near threatened
09/08/2022	Moss Carder-bee ( <i>Bombus (Thoracomus) muscorum</i> )	Threatened Species: Near threatened

A formal request for information relating to rare and protected species in the vicinity of the proposed development was submitted to NPWS. An assessment of files received from the NPWS (Code No. 2022\_120) which contain records of rare and protected species and grid references for sightings of these species in the vicinity of the proposed conservation plan area. Only data from 1960 onwards is included for the sake of relevancy. Table 5 provides a summary of the species identified, the year of

identification/sample, survey name and data ID of sightings locations noted by NPWS in the surrounding area (not within the proposed development site).

**Table 5.** Table of Species in surrounding areas, NPWS

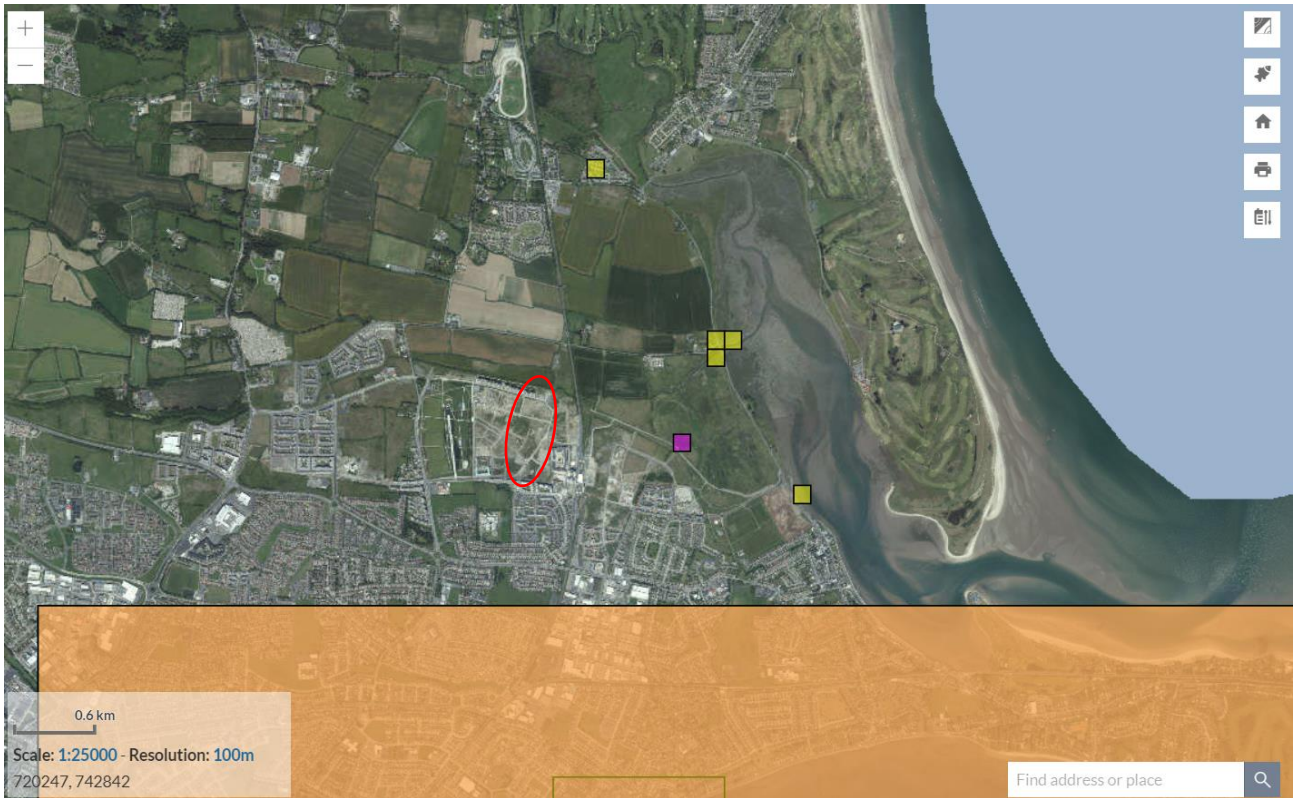
Data ID.	Species	Survey Name	Sample Year
24841	Opposite-leaved Pondweed ( <i>Groenlandia densa</i> )	Miscellaneous vascular plant records 2020	2017
22174	Common Frog ( <i>Rana temporaria</i> )	Frog IPCC data from National Frog Survey 2011	2010
17342	Common Frog ( <i>Rana temporaria</i> )	Frog IPCC data	2007
22655	Borrer's Saltmarsh-grass ( <i>Puccinellia Fasciculata</i> )	NPWS Rare/Threatened Plants Database	1993
6694	Eurasian Otter ( <i>Lutra lutra</i> )	Otter Survey of Ireland – Vincent Wildlife Trust	1980
10037	Lesser Centaury ( <i>Centaureum pulchellum</i> )	NPWS Rare/Threatened Plants Database	1991
27300	Upright Brome ( <i>Bromopsis erecta</i> )	Miscellaneous Vascular Plant Records 2014b	1985
2066	Meadow Barley ( <i>Horedum secalinum</i> )	Horedum secalinum	1991
10151	Meadow Barley ( <i>Horedum secalinum</i> )	NPWS Rare/Threatened Plants Database	1991
10507	Knotted Hedge-parsley ( <i>Torilis nodosa</i> )	NPWS Scarce Plants Spreadsheet (Pre-Final)	1991

### Terrestrial Mammals

The National Biodiversity Data Centre's online viewer was consulted in order to determine whether there have been recorded terrestrial mammal sightings in the wider area. This is visually represented in Figures 3-7. The following species were noted: *West European Hedgehog (Erinaceus europaeus)*, *Irish Hare (Lepus timidus subsp. Hibernicus)*, *European otter (Lutra lutra)*, *Irish Stoat (Mustela erminea subsp. Hibernica)*, *Eastern grey squirrel (Sciurus carolinensis) (not protected)*, *Red squirrel (Sciurus vulgaris)* and *Pine Marten (Martes martes)*.



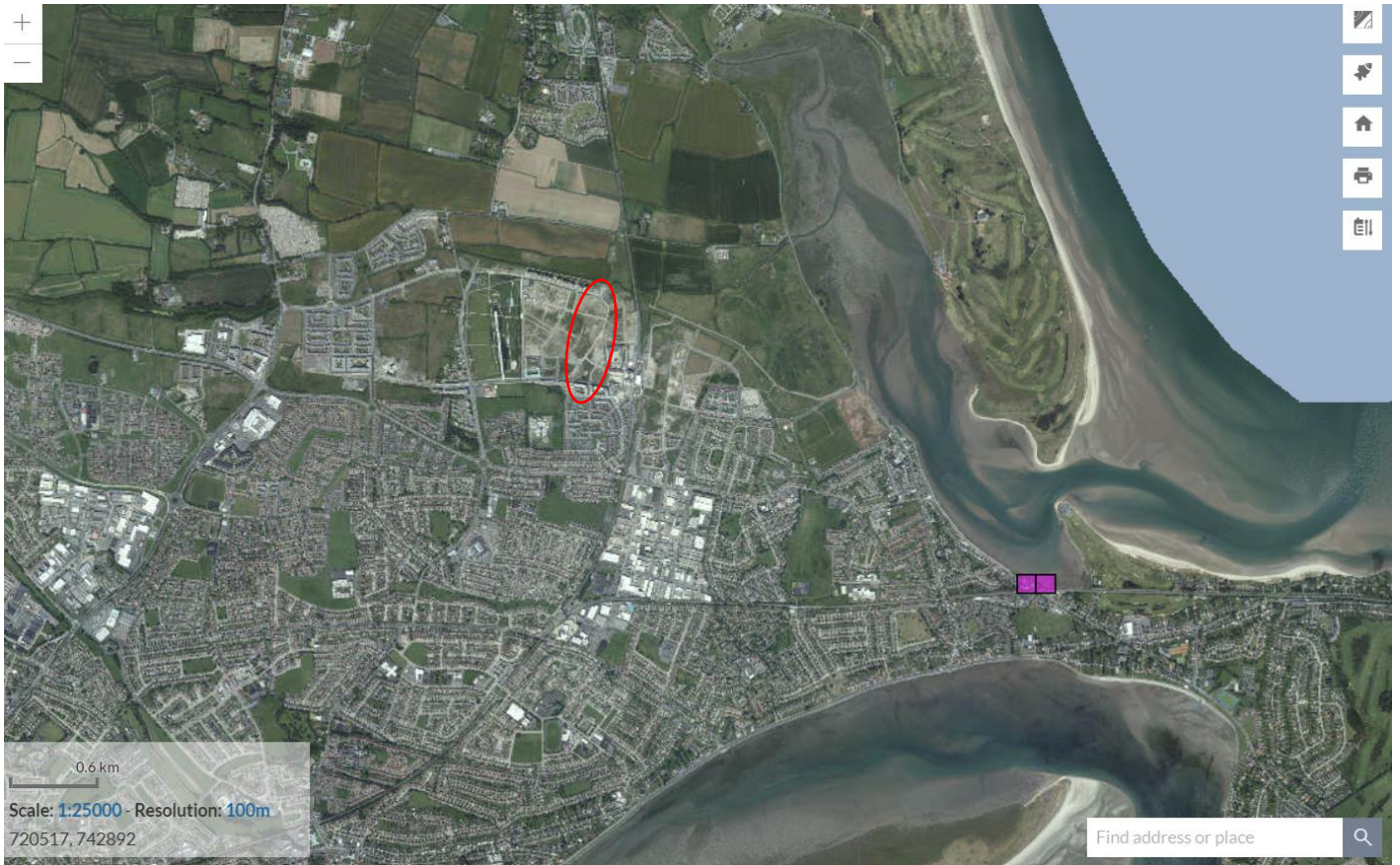
**Figure 3.** West European Hedgehog (*Erinaceus europaeus*) (yellow) and Irish Hare (*Lepus timidus subsp. Hibernicus*) (purple) (Source NBDC) (Site –red circle)



**Figure 4.** European otter (*Lutra lutra*) (yellow) and Irish Stoat (*Mustela erminea subsp. Hibernica*) (purple) (Source: NBDC) (Site: red circle)



**Figure 5.** Eastern grey squirrel (*Sciurus carolinensis*) (yellow)(Note: species not protected) and Red squirrel (*Sciurus vulgaris*) (purple). (Source NBDC) (site: red circle)



**Figure 6.** Pine Marten (*Martes martes*) (purple) (Site: red circle)

### Terrestrial Mammals – Bats

The National Biodiversity Data Centre's online viewer was consulted in order to determine whether there have been recorded bat sightings inside the proposed development site and in the wider area. NBDC records show no presence of bats within the site boundaries, but some are recorded in the surrounding area. This is visually represented in Figure 7. The following species were noted: Soprano Pipistrelle (*Pipistrellus pygmaeus*) and Lesser Noctule (*Nyctalus leisleri*).



**Figure 7.** Soprano Pipistrelle (*Pipistrellus pygmaeus*) (yellow) and both Soprano Pipistrelle & Lesser Noctule (*Nyctalus leisleri*) (orange) (Source: NBDC) (Site: red circle)

### Invasive Plant Species

The National Biodiversity Data Centre's online viewer was consulted in order to determine whether there have been recorded sightings of invasive species in the wider area. This is visually represented in Figure 8. The following species were noted in the vicinity but not within the site: Japanese Knotweed (*Reynoutria japonica*), Giant Hogweed (*Heracleum mantegazzianum*), Sea-buckthorn (*Hippophae rhamnoides*) and Indian Balsam (*Impatiens glandulifera*).



**Figure 8.** Japanese Knotweed (*Reynoutria japonica*) (purple) and Giant Hogweed (*Heracleum mantegazzianum*) (yellow) (Source NBDC) (Site: red circle)



**Figure 9.** Japanese Knotweed (*Reynoutria japonica*) (purple) and Giant Hogweed (*Heracleum mantegazzianum*) (yellow) (Source NBDC) (Site: red circle)

## Historic development of the site.

Much of the site had been previously cleared and consists of flat recolonising bare ground. As seen on the satellite imagery from Google Earth Pro, the site was originally agricultural fields in 2003, with minor works proximate to the River Mayne. By 2005 much of the site had been cleared and reprofiled. Since 2005 much of the site has been left and has recolonised.

## Site Visit

A site visit was carried out by Bryan Deegan (MCIEEM) on the 8<sup>th</sup> of September 2023. The site was inspected for potential constraints e.g. protected species, invasive species, badger setts etc. It should be noted that the site visit was carried out in a season that is not optimal for mammal surveys. However, as the site had previously been cleared and reprofiled this is not considered to be a significant constraint. In relation to the site visit the following should be noted:

- 1) No badger setts or otter holts were noted on site.
- 2) No protected flora were noted on site.
- 3) No invasive species (Habitats Directive (2011) species) were noted.

The proposed development site is not located within a designated site under the NATURA 2000 network. There are no specific records of protected flora and fauna within the site boundaries. No protected species or invasive species were noted on site.

## Wintering Bird surveys

Twelve wintering bird surveys (bimonthly) were carried out at this site by Altemar between October 2023 and March 2024. The surveys comply with bird survey guidance documentation including BTO Common Bird Census and RSPB Bird Monitoring Methods (Bibby et al., 2000 and Gilbert et al., 1998), I-WeBS Counter Manual: Guidelines for Irish Wetland Bird Survey counters (BWI & NPWS), and CIEEM guidelines.

A total of 15 species were recorded within the site outline across twelve surveys. Eight green-listed bird species of conservation concern were recorded within the site outline.

Five amber-listed bird species of conservation concern were recorded within the site outline: black-headed gull, greenfinch, house sparrow, herring gull, linnet and starling.

Two red listed bird species of conservation concern were recorded within the site outline: meadow pipit and snipe. Both species utilised the area within the proposed site outline for foraging.

Black-headed gull and herring gull are species listed under conservation objectives of Northwest Irish Sea SPA that were recorded foraging on and flying over the site outline. These species' occurred foraging in low peak numbers on site (2 and 4, respectively), equivalent to 0.4% and 0.1% of the estimated abundance of these species within this SPA (NPWS 2023). The peak number of individuals of these species to fly over the site outline in a single survey was 9 and 43, respectively, equivalent to 1.8% and 0.6% of the estimated abundance of these species within this SPA (NPWS 2023). We consider peak numbers of these species within the proposed area for development to be insignificant in relation to the conservation objectives of this SPA.

Black-headed gull was recorded both flying over and foraging within the site outline and is listed as a conservation objective of the nearby North Bull Island SPA. This species occurred foraging in low numbers on site (2 individuals) equivalent to 0.1% of the estimated peak abundance of this species within this SPA (NPWS 2015). The highest number of individuals to fly over the site outline in a single

survey was 9 individuals, equivalent to 0.3% of the estimated peak abundance of this species within this SPA. We consider the peak numbers of this species within the proposed area for development to be insignificant in relation to the conservation objectives of this SPA.

Herring gull was recorded within the site outline and is listed as a conservation objective of Ireland's Eye SPA. This species occurred foraging in low numbers on site (4 individuals peak count), equivalent to 0.8% of the estimated breeding population of this species within this SPA (NPWS 2011). The highest number of individuals to fly over the site outline in a single survey was 43 individuals which, assuming that all individuals are members of this colony, is equivalent to 8.7% of the estimated breeding population within this SPA (NPWS 2011). Altitude of this flyover was estimated at 80 metres, and therefore would not be impacted by developments built under this height within the proposed development. Buildings at or above this height would be easily navigated around from all directions due to the low level of developments to the west, south and east, and undeveloped lands to the north. Collision risk is also minimised by distance (> 5 km) of the proposed site from this SPA. Flights of this abundance were not observed during any other survey. We consider the peak numbers of this species flying over the proposed area for development to be potentially significant in relation to the conservation objectives of this SPA. However, we do not predict significant negative impacts on this species that would compromise the conservation objectives of this SPA due to the mitigating factors mentioned above.

Black-headed gull is also listed as a conservation objective of South Dublin Bay and River Tolka Estuary SPA. This species occurred foraging in low numbers on site (2 individuals), equivalent to 0.07% of the estimated peak abundance of this species within this SPA (NPWS 2015). The highest number of individuals to fly over the site outline in a single survey was 9 individuals, equivalent to 0.3% of the estimated peak abundance of this species within this SPA (NPWS 2015). We consider the peak numbers of this species within the proposed area for development to be insignificant in relation to the conservation objectives of this SPA.

No species listed under the conservation objectives of Baldoyle Bay SPA, Howth Head Coast SPA or Malahide Estuary SPA were recorded within the survey area.

## Conclusion

The proposed development is considered to have a low adverse long-term impact on species associated with the conservation objectives of nearby SPAs. A low adverse long-term impact on red-listed meadow pipit and snipe are predicted due to a loss of habitat and foraging area but is not considered significant due to the size of the site in relation to the widespread availability of suitable habitat in the surrounding area, including Baldoyle Bay and Sluice River Marsh proposed Natural Heritage Areas. No significant impact on wintering birds and/or species associated with the conservation objectives of nearby SPAs due to the proposed development is predicted.