APPENDIX 6.3 NON-VOLANT TERRESTRIAL FAUNA IMPACT ASSESSMENT

ALTEMAR
Marine & Environmental Consultancy

Non-volant terrestrial fauna impact assessment for a proposed development at Mount Avenue, Dundalk, Co. Louth

9th October 2025

Prepared by: Frank Spellman of Altemar Ltd.
On behalf of: Grandspect Limited

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Document Control Sheet			
Client	Grandspect Limited		
Project	Non-volant terrestrial fauna impact assessment for a proposed development at Mount Avenue, Dundalk, Co. Louth		
Report	Non-volant terrestrial mammal impact assessment		
Date	9th October 2025		
Version	Author	Reviewed	Date
Final	Frank Spellman	Bryan Deegan	9th October 2025

Contents

Summary

Structure/features:	The survey area consists primarily of arable crop fields (exposed during winter) with marginal areas of grassland, hedgerows, treelines, some scrub, and adjacent watercourses to the south and north.
Location:	Mount Avenue, Dundalk, Co. Louth.
Fauna species present:	Badger (*Meles meles*).
Proposed work:	Residential development.
Impact on non-volant mammals:	The overall impact of the proposed development will result in a long term minor adverse, not significant, residual impact on the ecology of the site and locality overall. A NPWS derogation licence is not required for the proposed development.
Survey by:	Frank Spellman.
Survey date:	Latest survey 6th March 2025.

Figure 1. Proposed site outline.

Figure 2. Proposed site and survey area location

Competency of assessor

Since its inception in 2001, Altemar has been delivering ecological and environmental services to a broad range of clients. Operational areas include: residential; infrastructural; renewable; oil & gas; private industry; Local Authorities; EC projects; and, State/semi-State Departments.

This report has been prepared by Frank Spellman and reviewed by Bryan Deegan, both of Alemar Ltd.

Bryan Deegan (MCIEEM, BSc Applied Marine Biology, MSc Environmental Science)

Bryan Deegan, the managing director of Altemar, is an Environmental Scientist and Marine Biologist with 30 years' experience working in Irish terrestrial and aquatic environments, providing services to the State, Semi-State and industry. He is currently lead project ecologist for Project Pembroke and was contracted to Inland Fisheries Ireland as the sole "External Expert" to environmentally assess internal and external projects. He is also chair of an internal IFI working group on environmental assessment. Bryan Deegan (MCIEEM) holds a MSc in Environmental Science, BSc (Hons.) in Applied Marine Biology, NCEA National Diploma in Applied Aquatic Science and a NCEA National Certificate in Science (Aquaculture).

Frank Spellman (BSc Zoology, MSc (Ind) Zoology).

This report and its associated survey has been prepared by Frank Spellman. Frank has extensive experience in carrying out a wide range of fauna surveys as both a sub-contractor and employee for environmental consultancies and organisations in Ireland and the US. These include both roving and static acoustic bat surveys, terrestrial non-volant mammal surveys, breeding/wintering bird surveys, and freshwater ecology surveys. Frank has been lead surveyor on numerous development projects within Ireland.

Legislative context

A number of non-volant terrestrial mammal species are protected under the Wildlife Act (1976), Wildlife [Amendment] Acts (2000 to 2012), and Annex IV of the Habitats Directive (transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations, 2011-2021. These include species such as badger, Irish stoat, Irish hare, brown hare, pine marten, red squirrel, otter, hedgehog, all deer species, and pygmy shrew.

The badger is also a Red Data Book species, but it is a relatively common species and ubiquitous through much of the Irish countryside (Smal, 1995).

It is standard best practice to make special provisions for badgers affected by development. Whilst the species is common in much of the Irish landscape, badgers are notable for their practice of constructing large underground tunnel and chamber systems (setts). Provisions are made for their humane removal or for their conservation on site where feasible or practicable. The Wildlife [Amendment] Act (2000-2012) protects all resting places of protected species.

Otters are protected under the Irish Wildlife Acts and are also listed under Annex II and Annex IV of the EU Habitats Directive.

Otters are relatively common in Ireland, and they do occur on most rivers in this country. Protection of this species is important, and provisions are made to ensure that holts are not interfered with except under especial circumstances and to ensure the quality of their foraging habitat.

Non-volant fauna survey

This report presents the results of the most recent site visit by Frank Spellman on 6th March 2025. A mammal specific transect survey was carried out on this occasion. Surveys were carried out using techniques approved and recommended by CIEEM.

Survey methodology

These non-volant mammal surveys were carried out based on techniques approved and recommended by CIEEM.

Surveys were undertaken in an area that consisted primarily of bare arable crop fields, hedgerows, treelines, small patches of scrub and grassland, areas of woodland and watercourse bordering the northwest and south of the survey

area. A single roving transect following the full perimeter of the site, circumnavigating and investigating all features within the site was carried out.

The transect began at the southeastern access point. The general transect route took an anti-clockwise route, circumnavigating and traversing all hedgerows, treelines, scrub, watercourses and other features within the survey area. Diversions to inspect particular habitats and features, as well as to follow trails were taken where required. Particular length was paid to areas of hedgerows, treelines, and watercourses.

Movements were carried out slowly, with pauses to observe open spaces and other features that might attract mammals, further following trails to determine their direction and investigate recipient areas for potential dens/setts/scatt/prints/scrapes/latrines etc. The survey took approximately 3 hours.

Survey results

Habitats of non-volant terrestrial fauna potential

A habitat assessment was carried out and used to examine the structures and vegetation on site for features that could facilitate non-volant terrestrial mammals and amphibians. Potential features include woodland, heavy scrub, hedgerows, margins of waterbodies, waterbodies, piles of vegetative/construction debris, grassland etc. All vegetated areas on site were assessed for evidence of non-volant mammals.

Areas of high non-volant mammal potential in the survey area included the hedgerows, treelines, scrub, woodland and watercourse margins within and along the boundary of the survey area.

Non-volant terrestrial mammal surveys.

The entire survey area and any areas that could potentially facilitate badger setts, otter holts, pine martin, hedgehog or deer were fully investigated. A total of one fauna species was confirmed within the survey area by visual confirmation and/or behavioural evidence: badger (*Meles meles*). These are visually represented in Figure 3.

An area of high mammal activity was observed along the west and northwest boundaries of the survey area. Foraging evidence, a recently used latrine and a single badger sett entrance were observed. The badger sett and latrine were located adjacent to each other within a hedgerow along the western boundary of the survey area. A trail camera was placed facing the entrance to determine its status. The sett was used once over a one-week period by an individual badger. No evidence of bedding, fresh digging, or other indicators of regular/breeding use was observed. The sett is likely to be an outlier sett. The status of and activity levels at this sett may change over time.

Foraging evidence by badgers was recorded to the west/northwest of the outlier sett along the boundary of the survey area, between the outlier sett and the bounding watercourse. It is likely that foraging by badgers occurs in other areas within the survey area.

Walkers, often with dogs, were observed on multiple occasions particularly between the eastern access point along Mount Avenue, Cú Chulainn's Castle and the northeastern access point along Mount Avenue. Evidence of anti-social behaviour and regular human presence was evident in the woodland along the watercourse bounding the northwest of the survey area where pedestrian access exists from Castletown Road.

No evidence of other terrestrial mammals was observed within the survey area. It is likely that amphibians utilise the site, as suitable habitat was observed within the survey area (waterlogged area between watercourse in northwest and arable crop field, riparian areas of watercourses), however no individual amphibians or spawn were observed during the mammal survey or during subsequent surveys carried out at the site in spring/summer.

Plate 1: Badger sett entrance.

Plate 2: Latrine adjacent to badger sett.

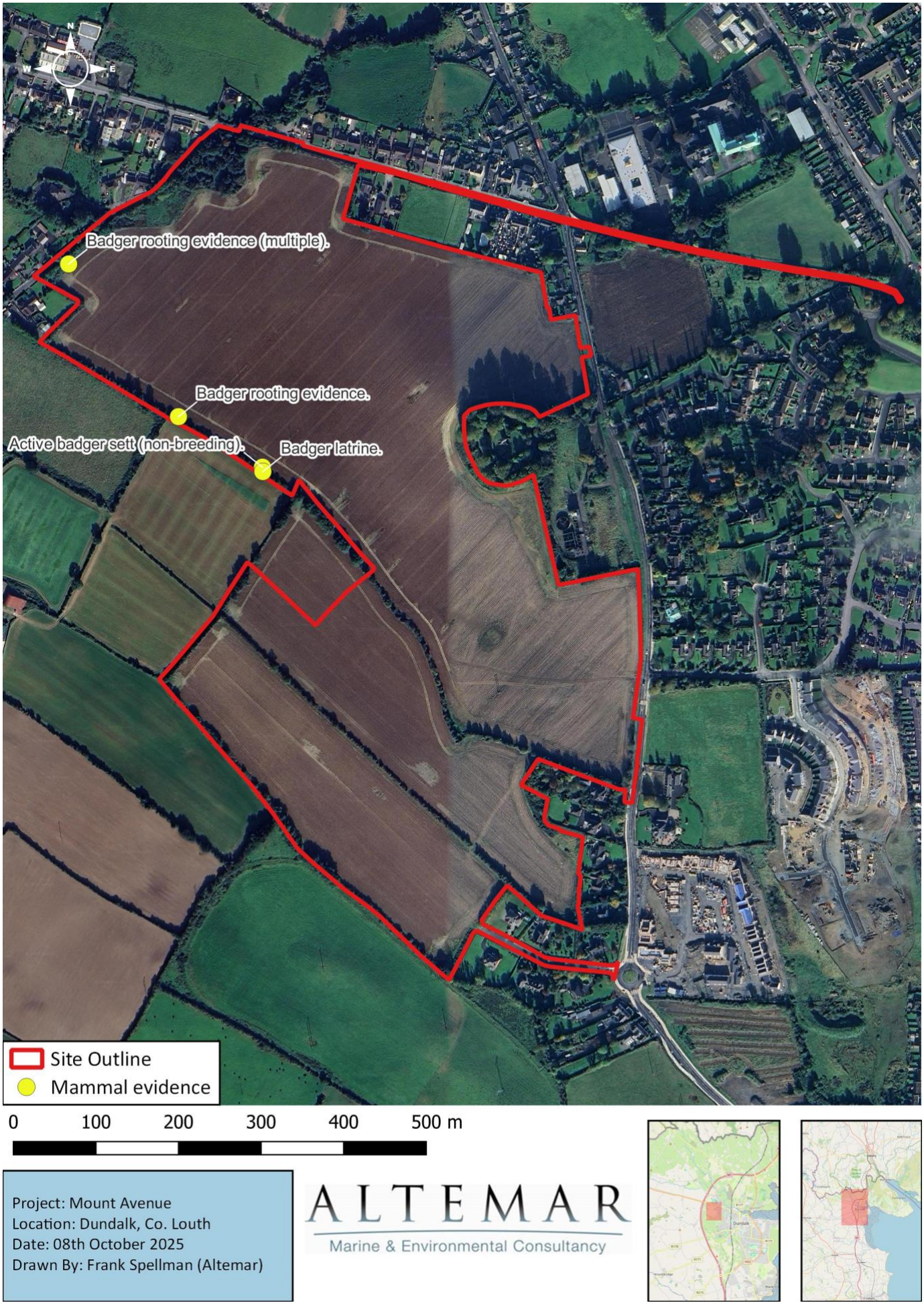

Figure 3: Non-volant fauna activity/evidence/ observed/recorded.

Figure 4: Active outlier badger sett location and minimum 30m exclusion

Non-volant mammal assessment findings

Review of local mammal records

The review of existing terrestrial mammal records (sourced from NBDC Database) within a 2km^2 grid (Reference grid J00J) encompassing the study area reveals that four known Irish species have been observed and recorded locally (Table 1).

Table 1: Status of non-volant mammal species within the 2km^2 grid (J00J)

Species Name	Record Count	Date of Last Record	Designation
Badger (*Meles meles*)	1	31/12/2005	Protected Species: Wildlife Acts
Hedgehog (*Erinaceus europaeus*)	3	30/06/2015	Protected Species: Wildlife Acts
Otter (*Lutra lutra*)	1	07/07/2005	Protected Species: EU Habitats Directive || Protected Species: EU Habitats Directive >> Annex II || Protected Species: EU Habitats Directive >> Annex IV || Protected Species: Wildlife Acts
Red Fox (*Vulpes vulpes*)	1	09/10/2017	

Evaluation of results

The mammal surveys comply with CIEEM guidelines.

One mammal species was confirmed within the survey area by behavioural evidence: badger (*Meles meles*).

No amphibian species were confirmed during this or subsequent surveys on site in the spring/summer.

Mammal activity was observed throughout the west and northwest of the survey area. Little to no evidence of mammal activity was observed elsewhere on site.

A single-entrance active badger sett was recorded within a hedgerow in the west of the survey area. Following review of camera trap footage, the sett is considered to be an outlier sett either within the territory of a larger family group in the surrounding area or occasionally used by individual(s) without an established territory. The status of and activity levels at this sett may change over time.

The site is used by locals for dog walking as well as general walkers, particularly in the northeast and northwest of the sites.

A review of existing records revealed that three additional species, hedgehog (*Erinaceus europaeus*), otter (*Lutra lutra*) and red fox (*Vulpes vulpes*) have been recorded in the vicinity of the survey area. No evidence of these additional species or others was observed within the survey area.

Overall, the survey area is of importance to badgers for resting, foraging and movement. Although a lack of evidence was observed for other protected species, there is habitat suitability for a variety of other mammal and amphibian species and therefore it is possible that one or more other protected mammal species or amphibian utilise an area or establish a territory within the site outline currently or in the future. An additional survey specifically for mammals is recommended if significant delays to the delivery of the proposed project occur.

Potential impact of the development on non-volant fauna

The survey area is primarily used as a resting place, foraging habitat (southern boundary) and corridor for protected badgers. Given the presence of an active badger sett and foraging movements within the site, there is potential for significant impacts on this species significant in the absence of mitigation measures. The proposed landscape strategy incorporates the required 30 m badger sett exclusion zone into the design while maintaining connectivity

around the site and into surrounding areas via retention of biodiversity corridors. Mitigation measures will be required to ensure no significant impacts on badgers within the site occur during construction.

Limitations

The entirety of the site was fully accessible, and the survey was carried out within season. There were therefore negligible limitations to the survey effort.

Mitigation measures

The proposed site outline within the survey area is of importance to the local badger (*Meles meles*) population. The impact of the development during construction phase will be a loss of foraging habitat and connectivity. There is also a risk of impacts to an active badger sett on the site during construction. The following mitigation measures relevant to mammals shall be implemented to minimise any potential negative impact on biodiversity:

- An Ecological Clerk of Works (ECoW) will be appointed to oversee the construction phase and to oversee the implementation of all mitigation including compliance with Wildlife Acts and Water Pollution Acts and ensure that biodiversity in neighbouring areas including and birds will not be impacted.
- A preconstruction survey for mammals will be carried out to determine activity levels at the sett, whether any new badger setts have been established, and whether any additional protected mammal species have become established within the site since the original survey was carried out.
- A minimum 30m exclusion zone around the active badger sett will be marked out and sign-posted prior to construction. No personnel (excluding ECoW and relevant bodies), machinery, equipment, materials or works (ground, landscaping or otherwise) will be permitted within the exclusion zone.
- Construction operations outside of daylight hours should be kept to a minimum in order to minimise disturbance to fauna in addition to roosting bird species.
- Silt interception should be integrated into all surface water run-off during construction prior to discharge off site.
- The effectiveness of the proposed mitigation will be monitored throughout the construction period.
- The construction corridor will be marked out prior to the commencement of construction.
- All construction work will be confined strictly to the construction corridor. Any construction works required outside the construction corridor will require prior approval from the ER.
- Large pipes (> 300mm) laid on the ground will be sealed at both ends.
- Excavations will be carried out leaving an escape route/slope for mammals.

Predicted residual impact of development

Following the full implementation of mitigation measures, the overall impact on the ecology of the proposed development will result in a long term minor adverse, not significant, residual impact on the ecology of the site and locality overall. The incorporation of a 30m badger sett exclusion zone during construction and integration of this zone into the landscape strategy by retention of existing hedgerow and native woodland planting will facilitate the perseverance of the badger sett during construction and operation. The retention of the site's existing hedgerow and treeline boundaries will facilitate the movement of mammals, in particular badgers, and provide a biodiversity corridor to facilitate connectivity for badgers and other mammals to and from the existing badger sett, both watercourses, and surrounding areas similar to existing levels.

A pre-construction survey will be carried out for terrestrial mammals of conservation importance. A NPWS derogation licence is not required at this time.

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