

7.0 FLORA AND FAUNA

7.1 Receiving Environment

- 7.1.1 On behalf of Dublin City Council, Patel Tonra Ltd. have undertaken the investigation of the ecological aspects of an environmental impact statement for the development of a Civic Amenity Facility on disused ground at Labre Park, Ballyfermot, Dublin 12.
- 7.1.2 The proposed development was assessed within the context of the potential direct, indirect, secondary and cumulative impacts upon the flora and fauna presently existing on-site, and on the immediate environs. The environmental impact statement will cover these potential impacts and put forward mitigation measures, if necessary, to minimise or eliminate the impact of the development on the receiving environment.
- 7.1.3 The proposed development area comprises ca. 11,053m², situated approximately 2 km south of the village of Ballyfermot, Dublin 12. The subject property is bordered to the south by the Grand Canal, to the North by the Galback Stream across which is situated Labre Park, to the west by industrial units and to the far east by the Kylemore Road. The land is primarily classified as wet grassland with a small marsh area and neighbouring water bodies. The land is currently derelict and has been subject to fly-tipping and deposition of unauthorised waste material historically.
- 7.1.4 Upon establishing the baseline floral and faunal composition of the area for development and its neighbouring habitats, the characteristics of the development with respect to the established ecological habitats were considered.

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7.2 Consultation with Concerned Groups

Dúchas – The Heritage Service

- 7.2.1 Consultations with Dúchas in November 2004 revealed that the proposed development area is located in the proximity of an area that has been recommended to be a National Heritage Area, i.e. the Grand Canal. However, the site and its immediate neighbouring habitats are not recorded as containing any EC Natural Habitat types or fauna of community or national interest as directed by Council Directive 92/43/EEC, 21 May 1992.
- 7.2.2 Table 7.1 provides a list of the closest proposed designated areas to the proposed civic amenity site (Proposed National Heritage Areas (PNHAs)).

Table 7.1: Proposed National Heritage Areas (PNHAs) within 10km of the Proposed Development Area at Labre Park, Dublin 10

PNHA No.	Name	Distance from Site
128	Liffey Valley	3 km (east)
2103	Royal Canal	7 km (south/south-west)
2104	Grand Canal	20 m (south)

Dublin County Development Plan 1999

- 7.2.3 The Grand Canal and the area along the bank of the Canal Park (Area FW3 on Figure 7.1) are zoned Z9 in the current Dublin Development Plan, 1999.

National Parks and Wildlife Service

- 7.2.4 The National Parks and Wildlife Service did not respond with concern regarding the flora and fauna of this area.

The Bat Conservation Group, Dublin

- 7.2.5 The Bat Conservation Group did not respond with concern regarding the flora and fauna of this area.

7.3 Field Survey

Site Overview

- 7.3.1 The study area is generally flat with no distinct topographical features and contains a number of electrical pylons. The area is mainly derelict ground used for some minor grazing of horses. The site is bounded by the Grand Canal to the south, to the north by an open drainage ditch, with the east and west boundaries to be developed at a later stage but currently being similar in condition to the existing site.
- 7.3.2 All vegetation areas examined are currently in a poor state, with overgrazing by horses and no land management measures in place, there is little flora species diversity at the site. Current management practice in the area includes grazing by herbivorous livestock (horses). The current major land use for the area is grazing. A number of site walkovers have been carried out at the site, with the final walkover being carried out on 29th October 2004.

Anthropogenic Effects

- 7.3.3 There is evidence of vehicular movements on the site with some remnants of 'burned-out' vehicles. Vehicular movements in the area have caused some compaction of the ground, restricting growth of sedges, rushes, herbs, and saplings.

Overview of Flora

- 7.3.4 The plant community types present at the Labre Park site are outlined in Figure 7.1 and described below on an area-by-area basis. Four of the areas at the proposed site have been classified according to Heritage Council (Fossitt, 2000) guidelines. The four habitat classifications found are listed with reference to Fossitt, 2000.
- 7.3.5 The habitats observed during walkovers at the proposed site are (see Figure 7.1 also):
- Wet grassland, or according to Fossitt (2000), GS4
 - A Canal bank, or according to Fossitt (2000), FW3
 - A freshwater marsh, or according to Fossitt (2000), GM1
 - An open drainage ditch, or according to Fossitt (2000), FW4
- 7.3.6 These land classifications are not advanced as definitive due to age and management of sites, however are currently the most representative classifications for the existing habitats within and surrounding the site. There are no hedgerows or mature trees existing on the site.
- 7.3.7 According to the EU Habitat directive 92/43/EEC and Irish Red Data Book (1988), no plant species/habitat type defined as grassland at Ballyfermot, Dublin 12 falls within the remit of the directive.

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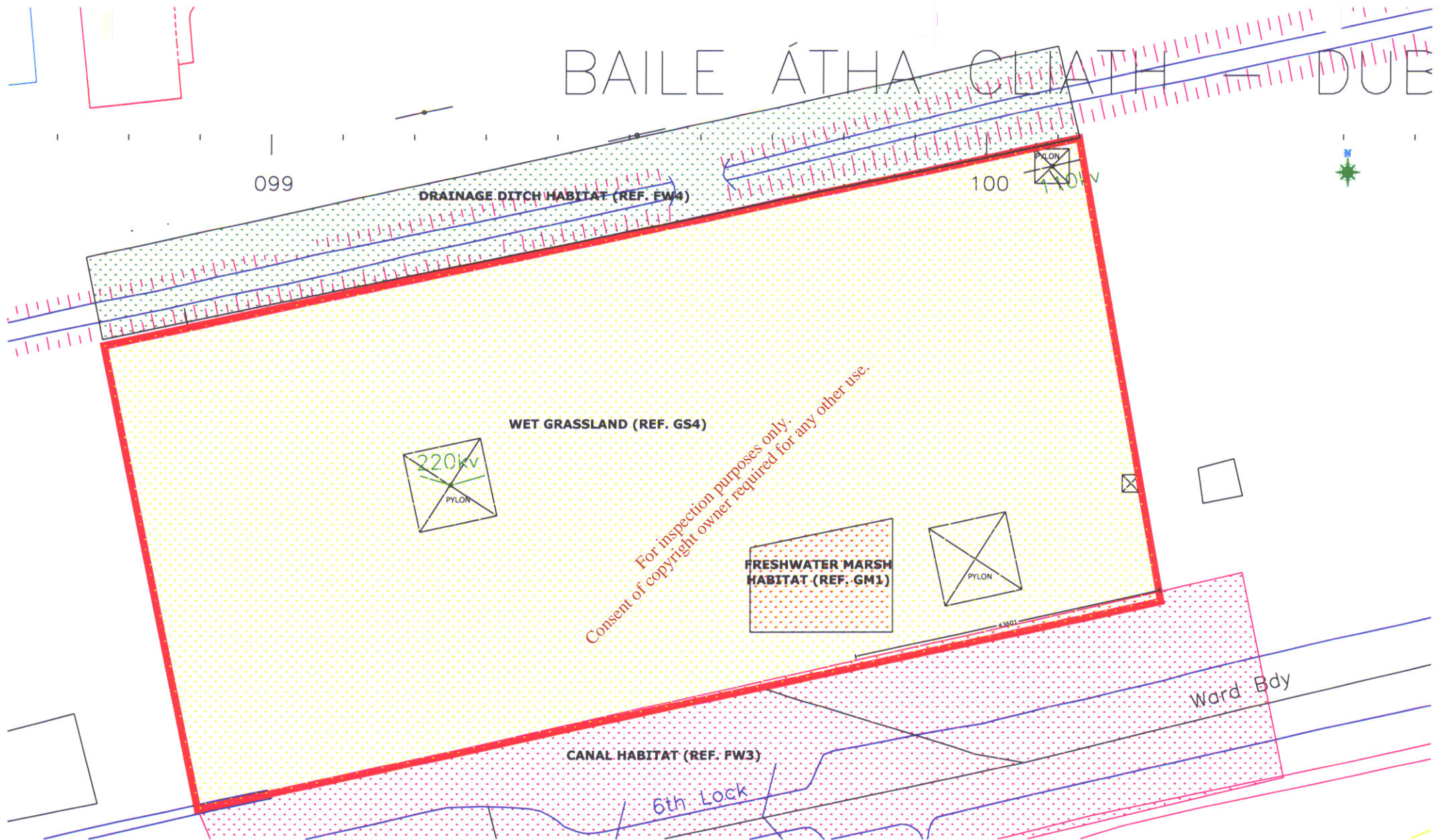


Figure 7.1:
Habitat Layout Plan

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Classification of Vegetation

Wet Grassland (GS4)

7.3.8

The grassland of the area is typical of lands that are subject to periodic flooding and is characterised by grasses and sedges, with some small areas of rushes (*Juncus effuses*, *J. acutiflorus*, *J. articulatus*, *J. inflexus*) with stands of Yorkshire Fog (*Holcus lanatus*), creeping bent grass (*Agrostis stolonifera*), sedge (*Carex* sp.), and rough meadow grass (*Poa trivialis*). Species characteristic of disturbed conditions such as nettle (*Urtica dioica*), brambles (*Rubus fruticosus*), dock leaves (*Rumex spp.*) and dandelion (*Taraxacum spp.*) are also notable. The floral composition of the grassland area GS4 is given in Table 7.2.

Table 7.2: Floral Composition of Grassland (GS4)

Common Name	Scientific Name
Creeping bent grass	<i>Agrostis stolonifera</i>
Yorkshire Fog	<i>Holcus lanatus</i>
Sedge	<i>Carex</i> sp.
Red fescue	<i>Festuca rubra</i>
Nettle	<i>Urtica dioica</i>
Dock Leaf	<i>Rumex obtusifolius</i>
Dandelion	<i>Taraxacum</i> spp.
Buttercup	<i>Ranunculus repens</i>
White Clover	<i>Trifolium repens</i>
Greater Plantain	<i>Plantago major</i>
Shepherd's purse	<i>Capsiella bursa-pastoris</i>
Spear thistle	<i>Cirsium vulgare</i>
Foxglove	<i>Digitalis purpurea</i>
Common couch	<i>Elymus repens</i>
Perennial rye-grass	<i>Lolium perenne</i>

Freshwater Marsh (GM1)

7.3.9

This area is located between the Canal and the main site area, see Figure 7.1. In this area standing water is not a permanent characteristic except during periods of heavy rainfall. The area is small (ca. 12m²) and is dominated by rushes (*Juncus spp.*) with small proportions of sedges (*Carex spp.*) and grasses such as bent grass (*Agrostis stolonifera*). The main floral constituents of this area are listed in Table 7.3.

Table 7.3: Floral Composition of Freshwater Marsh (GM1)

Common Name	Scientific Name
Creeping bent grass	<i>Agrostis stolonifera</i>
Sedge	<i>Carex</i> sp.
Nettle	<i>Urtica dioica</i>
Rush	<i>Juncus</i> sp.
Dandelion	<i>Taraxacum</i> spp.
Spear thistle	<i>Cirsium vulgare</i>

Galback Stream (FW4)

7.3.10

This waterbody takes surface water run-off from the industrial area to the west of the site. The channel is ca. 2 metres wide and flows from west to east along the northern boundary of the site. The channel is piped under Kylemore road and is subject to blockages causing the level in the channel to rise and cause localised flooding during periods of high rainfall. The main floral composition within and along the edges of the stream is listed in Table 7.4.

Table 7.4: Floral Composition of Open Drainage Ditch (FW4)

Common Name	Scientific Name
Water-milfoils	<i>Myriophyllum</i> spp
Creeping bent grass	<i>Agrostis stolonifera</i>
Sedge	<i>Carex</i> sp.
Yorkshire Fog	<i>Holcus lanatus</i>
Nettle	<i>Urtica dioica</i>
Rush	<i>Juncus</i> sp.
Dandelion	<i>Taraxacum</i> spp.
Greater Plantain	<i>Plantago major</i>
Spear thistle	<i>Cirsium vulgare</i>

Grand Canal (FW3)

7.3.11

The Grand Canal flows along the southern boundary of the site and includes typical vegetation both within the canal itself and along the banks, such as water-milfoils (*Myriophyllum* spp.) bur-reeds (*Sparganium* spp.) and duckweeds (*Lemna* spp.). The banks of the canal also hosts sedges (*Carex* spp.) and grasses such as creeping bent grass (*Agrostis stolonifera*) and a number of rushes and reed varieties such as bulrush (*Typha latifolia*).

Table 7.5: Floral Composition of Canal and Canal Bank (FW3)

Common Name	Scientific Name
Duckweeds	<i>Lemna spp.</i>
Water-milfoils	<i>Myriophyllum spp</i>
Water Lily	<i>Nymphaea alba</i>
Creeping bent grass	<i>Agrostis stolonifera</i>
Sedge	<i>Carex sp.</i>
Red fescue	<i>Festuca rubra</i>
Yorkshire Fog	<i>Holcus lanatus</i>
Nettle	<i>Urtica dioica</i>
Rush	<i>Juncus sp.</i>
Dandelion	<i>Taraxacum spp.</i>
Greater Plantain	<i>Plantago major</i>
Shepherd's purse	<i>Capsella bursa-pastoris</i>
Spear thistle	<i>Cirsium vulgare</i>
Foxglove	<i>Digitalis purpurea</i>

Fauna Records

Mammals

7.3.12

No direct sightings of mammals were noted during the study of any area of the proposed site. Given the existing site conditions it is extremely unlikely that any protected or vulnerable fauna are located in the proposed development site area, however those fauna expected in this locality are listed in Table 7.6.

Table 7.6: Mammals expected in open areas within and surrounding the proposed site development

Common name	Scientific Name
Hedgehog	<i>Erinaceus europaeus</i>
Rabbit	<i>Oryctolagus cuniculus</i>
House mouse	<i>Mus domesticus</i>
Brown rat	<i>Rattus norvegicus</i>
Red fox	<i>Vulpes vulpes</i>
Irish stoat	<i>Mustela erminea</i>
American mink	<i>Mustela vison</i>
Badger *	<i>Meles meles</i>

* Those mammals protected under the EU Directive 92/43/EEC

- 7.3.13 A field survey on site revealed no evidence of mammals living on the site, i.e. no evidence of burrows, however the area could be used for foraging by some of those listed above.

Birds

- 7.3.14 There was no sign of any avi-faunal breeding activity on this site during the site walkover due to the time of year. It is quite likely that the habitat is used for foraging by the species listed in Tables 7.7 and 7.8.

Table 7.7: Bird species in Open Grassland

Common name	Scientific Name
Swallow *	<i>Hirundo rustica</i>
Magpie	<i>Pica pica</i>
Rook	<i>Corvus frugilegus</i>
Carrion Crow	<i>Corvus corone</i>
House martin *	<i>Delichon urbica</i>
Robin	<i>Erithacus rubecula</i>
Song Thrush	<i>Turdus philomelos</i>
Blackbird	<i>Turdus merula</i>
Mistle thrush	<i>Turdus viscivorus</i>
Pied wagtail	<i>Motacilla alba yarellii</i>
Chaffinch	<i>Fringilla coelebs</i>
Goldfinch	<i>Carduelis carduelis</i>
Greenfinch	<i>Carduelis chloris</i>
Bullfinch	<i>Pyrrhula pyrrhula</i>
House sparrow	<i>Passer domesticus</i>
Starling	<i>Sturnus vulgaris</i>
Jackdaw	<i>Corvus monedula</i>

*Those birds only present during summer months

Table 7.8: Bird species in Wetland (Canal and Galback Stream)

Common name	Scientific Name
Mallard	<i>Anas platyrhynchos</i>
Moor hen	<i>Gallinula chloropus</i>
Mute Swan	<i>Cygnus olor</i>
Grey Heron	<i>Ardea cinerea</i>

Invertebrates

- 7.3.15 Invertebrates were not recorded as the habitat types reported here are not known to support species of scientific/conservation importance.

7.4 Characteristics of the Proposal

7.4.1 The proposed development is for the construction of a Civic Amenity Facility on waste ground area (11,053m²) to the south of Labre Park, Ballyfermot, Dublin 12. The construction of the new site will involve the stripping of some topsoil and the construction of new hardstanding site surface with associated fill and site drainage. The development will also involve the construction of two site offices and the installation of two weighbridges.

7.4.2 During operation of the facility the site will be divided into separate areas, which will be used for varying waste management operations, these are:

- Civic Amenity Area – This area will be accessed by members of the public to dispose of recyclables, bulky household wastes, C&D waste and green waste.
- Dublin City Council Depot Area – This area will be used by DCC vehicles for the disposal of wastes collected from road sweeping and litter bins in the area to a compactor unit before being taken off site for disposal.
- Waste electrical and electronic equipment - this area will be used for the bulk storage of WEEE
- Construction/Demolition Area – for the deposit of mixed construction/demolition waste from households.

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7.5 Predicted Impacts

- 7.5.1 Poor quality grassland will be developed upon with the majority of the site being covered with hardstanding material, thus locally important habitats could be impacted. However, due to the poor condition of the existing sites and the fact that the habitats contained within the site are not significantly important the impacts of the proposed development will be negligible.

Proposed Site Area

- 7.5.2 The grassed area will be developed upon in its entirety leading to the destruction of existing vegetation and loss of habitat for fauna.

Surrounding Area

- 7.5.3 The main impacts on the flora and fauna in surrounding lands from the development of the facility may come from the potential contamination of the surface water (Galback Stream or Grand Canal) rather than potential effects on bordering vegetation.

7.6 Mitigation Measures

- 7.6.1 The main impact from the development of the area will be the construction of a hardstanding yard area over the majority of the site with some dust being created by movement of traffic, excavation vehicles and transport of materials from the site during construction. In the context of impacts on flora and fauna, the contributors to reduced species diversity and abundance in the surrounding environment will be: (a) related to dust levels from the movement of cars and trucks within the site and (b) the release of contaminants to surface or groundwater which may effect water quality downstream on the Camac River.
- 7.6.2 The surface quality of the site will be hardstanding which will reduce the production of dust problems and will make the control of dust easier and thus reduce impacts on vegetation in the surrounding area, i.e. along the Grand Canal bank.
- 7.6.3 The southern boundary will not encroach on the Grand Canal bank and thus will not interfere with floral or faunal life in the Canal itself or along the Canal bank.
- 7.6.4 All tanks on the site will be bunded or double skinned to prevent contamination of the local aquifer should a tank fail or leak. Furthermore, all oil drums will be stored under cover and be located on drip trays in order to prevent groundwater contamination.
- 7.6.5 Foul water drainage, from the proposed site offices, will be discharged to an existing public foul sewer in the area. This will not impact on the ecological environment.

7.7 Likely Effects of this Proposal

- 7.7.1 If the proposed mitigation measures outlined in section 7.6 are applied, then the impacts of the new Civic Amenity Facility operation on surrounding flora and fauna are unlikely to be significant.

7.8 Monitoring

- 7.8.1 Monitoring of the effects of the new facility on flora and fauna will not be necessary if all mitigation measures are in place at time of commencement of operations.

7.9 Forecasting Methods

- 7.9.1 A qualitative baseline study of the site was carried out during October 2004. During site visits, a detailed account of the floral and faunal composition was recorded. Further to field studies, a desk study was completed.

Field Surveys

- 7.9.2 The field surveys conducted were qualitative, involving pedestrian investigations of the site. Identification of the vegetation was largely dependent on the presence of flower heads which were in decline due to the time of year sampling took place (October 2004). It was anticipated that any plants that appear on a seasonal basis flowered during the summer growth period and were identifiable during the survey.

Desk Survey/Consultation with Concerned Groups

- 7.9.3 Desktop and personal consultations of the following resources were also used to compile the findings and recommendations of this report.

- Ordinance Survey maps for Ballyfermot, Dublin 12
- Dublin County Development Plan 1999
- Dúchas – The Heritage Service
- The Irish Wildlife Trust
- The Bat Conservation Group, Dublin

- 7.9.4 A literature survey of those mammals and birds recorded in Ireland was completed (Hayden & Harrington (2000) and Cleave (1995)), focusing on the Dublin area. This desk study was completed in order that those fauna not observed but likely to be present were identified.

7.10 Difficulties In Compiling Specified Information

- 7.10.1 No difficulties were encountered in compiling this section

7.11 References

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- Hayden, T. and Harrington, R. (2000). Exploring Irish Mammals. Town House and Country House Ltd., Dublin.
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