PROPOSED REDEVELOPMENT OF DERELICT GASWORKS SITE, DOCKLANDS, LIMERICK

Bat survey

Report prepared for

Bord Gáis

by

Conor Kelleher AIEEM, AMCQI

23rd September 2009

Aardwolf Wildlife Surveys

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TABLE OF CONTENTS

Page no.

1. Introduction

Due to new development proposals at the site of the former gasworks on the Docklands Road, Limerick City, *Aardwolf Wildlife Surveys* was requested to provide a current bat survey and assessment of the on site structures. This present survey was requested by *Bord Gáis*, of Gasworks Road, Cork.

A previous fauna survey confirmed the presence of one bat species on site; the common pipistrelle *Pipistrellus pipistrellus*. Other bat species are also known to be present in the local area and these may occur on site occasionally including the soprano pipistrelle *P. pygmaeus*, Leisler's *Nyctalus leisleri* and brown long-eared *Plecotus auritus* bats.

1.1 Site location and access

The site is located at National Grid Reference R569 567 (Discovery Series Sheet no. 65) and is accessible from a local street off the N69 road.

2. Bat survey

This report presents the results of a site visit by Conor Kelleher on 7th September 2009. The bat fauna occurring on the site are described along with other species likely to occur.

2.1 Survey methodology

Field survey was undertaken in good weather conditions with light winds, mild temperatures and no rainfall.

Survey of bat fauna was carried out by means of a thorough search within the site. All structures were inspected externally and, where deemed necessary, internally for evidence of bat use using a powerful torch – 6-cell Maglite. Presence of bats is indicated principally by their signs, such as staining, lack of spider webs, feeding signs, urine marks or droppings - though direct observations are also occasionally made. The nature and type of habitats present are also indicative of the species likely to be present. The field survey was supplemented by evaluation of relevant literature and existing information.

2.1.1 Survey constraints

There were no seasonal or climatic constraints in regard to bat survey. Early September is within the active bat period (March to end of September).

3. Brief description of site from the perspective of bat habitat

The grounds of the former Limerick Dockland's Gasworks are situated on low-lying ground at c20m asl and consist of several derelict and disused buildings of various ages set within an area of recolonising bare ground.

The on site structures are favourable for bats as the older, stone-built buildings have open access for these animals and offer roosting potential within crevices between stonework or behind heavy ivy *Hedera helix* cover. The two modern buildings on site are disused and so are undisturbed and offer dark interiors or roof spaces that are favourable for roosting bats.

The overall site lacks tall vegetation and is very open as a result and such would not entice bats onto the site.

4. Results of bat survey

Four structures are present on site. These consist of a disused office building (Plate 1), the remains of roofless high stone walls (Plate 2), a modern 'lean-to' shed (Plate 3) and a roofless, stone-built building (Plate 4). All of these structures show features that may be used by bats as access points or roosting sites.

The office building has an expanse of roof with gaps beneath slating, soffit and barge boards which allow access for these animals and bat access to the 'lean-to' shed is available through its open door or via gaps beneath its roofing. The older site structures offer bat access opportunities through decaying stonework, loose plaster, holes in walls, crevices between stonework, disused chimneys, ivy cover and roots in walls etc. As such, these buildings show good potential for bat use both in summer and winter as roosting sites within the structures are limitless.

The office building, including its roof space, was examined internally as well as externally and a search for bat signs and bat corpses was made but none were found. Similarly, the 'lean-to' shed showed no evidence of bat presence. The high stone walls and derelict stone building were carefully inspected for signs of bat presence but again none were found.

During a previous fauna survey of the site, an on-the-wing specimen of common pipistrelle was recorded and, though not observed on site to date, soprano pipistrelle, Leisler's and brown long-eared bats are expected to occur occasionally as they have been recorded in the local area (pers. obs.). However, there is no evidence that any of these bat species is currently roosting within the on site structures.

A list of the known Irish bat species is given in Table 1 below with their adjudged status on site. Further details of bat species known or expected on site are given in Appendix 1 and 2.

Table 1: Adjudged status of Irish bat species within the study area

Common name	**Scientific name**	**Adjudged status on site**
Common pipistrelle	*Pipistrellus pipistrellus*	Present
Soprano pipistrelle	*Pipistrellus pygmaeus*	Potential
Nathusius' pipistrelle	*Pipistrellus nathusii*	Absent
Leisler's bat	*Nyctalus leisleri*	Potential
Brown long-eared bat	*Plecotus auritus*	Potential
Lesser horseshoe bat	*Rhinolophus hipposideros*	Absent
Daubenton's bat	*Myotis daubentonii*	Absent
Natterer's bat	*Myotis nattereri*	Absent
Whiskered bat	*Myotis mystacinus*	Absent
Brandt's bat	*Myotis brandtii*	Absent

5. Legal status and conservation issues - bats

All Irish bat species are protected under the Wildlife Act (1976) and Wildlife Amendment Act (2000). Also, the EC Directive on The Conservation of Natural habitats and of Wild Fauna and Flora (Habitats Directive 1992), seeks to protect rare species, including bats, and their habitats and requires that appropriate monitoring of populations be undertaken. Across Europe, they are further protected under the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1982), which, in relation to bats, exists to conserve all species and their habitats. The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention 1979, enacted 1983) was instigated to protect migrant species across all European boundaries. The Irish government has ratified both these conventions.

All Irish bats are listed in Annex IV of the Habitats Directive and the lesser horseshoe bat *Rhinolophus hipposideros* is further listed under Annex II.

The current status and legal protection of the known bat species occurring in Ireland is given in Table 2 below.

NB: Destruction, alteration or evacuation of a known bat roost is a notifiable action under current legislation and a derogation licence **has** *to be obtained from the* National Parks and Wildlife Service **before** *works can commence.*

Furthermore, it should be noted that any works interfering with bats and especially their roosts, including for instance, the installation of lighting in the vicinity of the latter, may only be carried out under a licence to derogate from Regulation 23 of the Habitats Regulations 1997, (which transposed the EU Habitats Directive into Irish law) issued by NPWS. The details with regards to appropriate assessments, the strict parameters within which derogation licences may be issued and the procedures by which and the order in relation to the planning and development regulations such licences should be obtained, are set out in Circular Letter NPWS 2/07 "*Guidance on Compliance with Regulation 23 of the Habitats Regulations 1997 - strict protection of certain species/applications for derogation licences*" issued on behalf of the Minister of the Environment, Heritage and Local Government on the 16th of May 2007 which is reproduced in the Appendices.

Table 2: Legal status and protection of the Irish bat fauna

Common and scientific name	Wildlife Act 1976 & Wildlife (Amendment) Act 2000	Irish Red Data Book status	Habitats Directive	Bern & Bonn Conventions
Common pipistrelle *Pipistrellus pipistrellus*	Yes	Internationally Important	Annex IV	Appendix II
Soprano pipistrelle *P. pygmaeus*	Yes	Internationally Important	Annex IV	Appendix II
Nathusius pipistrelle *P. nathusii*	Yes	Not referenced	Annex IV	Appendix II
Leisler's bat *Nyctalus leisleri*	Yes	Internationally Important	Annex IV	Appendix II
Brown long-eared bat *Plecotus auritus*	Yes	Internationally Important	Annex IV	Appendix II
Lesser horseshoe bat *Rhinolophus hipposideros*	Yes	Internationally Important	Annex II Annex IV	Appendix II
Daubenton's bat *Myotis daubentonii*	Yes	Internationally Important	Annex IV	Appendix II
Natterer's bat *M. nattereri*	Yes	Indeterminate	Annex IV	Appendix II
Whiskered bat *M. mystacinus*	Yes	Indeterminate	Annex IV	Appendix II
Brandt's bat *M. brandtii*	Yes	Not referenced	Annex IV	Appendix II

6. Overall assessment of scientific interest of site in relation to bats

The structures of the former Limerick Dockland's Gasworks site would, on general appearance, appear to offer very favourable features for bat use being extensive, undisturbed and sheltered. However, despite the buildings' apparent favourability for bats, no bats are presently using the structures as major roosting areas. This poor finding is certainly as a result of the site being located within a built-up urban area which is consequently very bright at night. Also, as there is no on site water course or water body and no mature tree lines or hedgerows which might act as commuting corridors for bats off site to reach the area or as habitats in which insects might occur and act as prey for bats, numbers of bats on site are limited as a result. This lack of vegetation on site is not conducive to supporting foraging bats.

7. Potential impacts of proposed development on bat fauna

Due to the very limited use of the site by bats the proposed development is not expected to have any adverse impact on these animals and mitigation measures in relation to bats are deemed unnecessary.

As no bat roost was found in any of the impacted buildings, a derogation licence is not required for the proposed development to proceed.

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9. Appendices

9.1 Bat ecology – general

Introduction

The bat is the only mammal that is capable of true flight using modified hands and arms which are covered by a supple membrane of skin. This ability has allowed bats to exploit aerial insect prey and avoid predation. As the largest mammalian group after the rodents (to which they are not related), bats are very successful and have diversified into over 1,100 species worldwide, representing almost a quarter of all mammal species. Within such diversification, they have evolved a range of hunting strategies, means of reproduction, roosting behaviours and social interactions (Kunz, 1982). They are found throughout the world and in every continent apart from Antarctica.

Bats are classified within the Order Chiroptera (meaning 'Hand-wing') and this is further divided into two Superfamilies: the Megachiroptera and Microchiroptera. The former are mainly fruit-eaters while the latter are predominantly insectivorous. Of these, 47 bat species are currently known in Europe.

Irish bat species

In Ireland, ten species of bat are currently known to be resident. These are classified into two Families: the Rhinolophidae (Horseshoe bats) and the Vespertilionidae (Common bats). The lesser horseshoe bat *Rhinolophus hipposideros* is the only representative of the former Family in Ireland. All the other Irish bat species are of the latter Family and these include three pipistrelle species: common *Pipistrellus pipistrellus*, soprano *P. pygmaeus* and Nathusius' *P. nathusii*, four *Myotids*: Natterer's *Myotis nattereri*, Daubenton's *M. daubentonii*, whiskered *M. mystacinus*, Brandt's *M. brandtii*, the brown long-eared *Plecotus auritus* and Leisler's *Nyctalus leisleri* bats.

Individual species accounts with distribution maps are given in Appendix 2 below.

Hunting with sound

The microbats are unique as they use a type of sonar, called echolocation, by which they hunt their prey. This is a stream of sound produced at high frequencies which allows the animal to build-up a complete 'sound picture' of their surroundings. These sounds are produced well beyond the range of human hearing. Using these sounds, the bats are able to detect the clutter of nearby leaves, hear an insect, know how fast it is travelling, how fast its wings are beating, whether it is hard or soft bodied etc. before closing in for the catch. Although bats use this method to find their way around, they also use their eyes to see in low light levels.

All the European bat species feed exclusively on insects and/or spiders and a pipistrelle, weighing only 4 to 8 grams, will eat up to 3,500 insects every night. This allows the bat to increase its body weight by 50% each night but this is immediately burned off through calorie consumption while flying. Such feeding ensures a build up of fat in the form of brown adipose tissue between the shoulder blades of the bat which acts as a winter fuel store to keep the animal alive while in hibernation.

Roosting behaviour

Bats naturally roost in caves and trees but some species have recently adapted to using man-made structures for roosting. Being social animals, these roosts can reach substantial numbers in the peak period of bat activity in mid-summer and especially if the roost has been selected as a maternity site. These nursery roosts are mainly composed of breeding females but often they include some non-breeding females and males that may be the previous season's young still with their mother. Males are more solitary and form smaller roosts apart from the females.

For summer roosts, bats seek warm temperatures but, for hibernation in winter, they require constant temperatures of only 5° or 6°C and humid surroundings to keep from dehydrating. In mild winters, bats will emerge from such sites to hunt should insects be on the wing.

Breeding and longevity

In autumn, male bats attract females by song flights and form harems with up to 20 females being defended by a male. After mating, the males take no further part in the rearing of the young.

Irish bats can produce one young per year but, more usually, only one young is born in spring every two years (Boyd & Stebbings, 1989). There is no fixed pregnancy period and gestation is governed by ambient temperature. The slow rate of reproduction by bats inhibits repopulation in areas of rapid decline. Although bats have been known to live for twenty or more years, this is rare as most die in their first and the average lifespan, in the wild, is four years. The survival of the young is closely linked to climate and poor weather in spring and summer can result in high infant mortality.

Threats

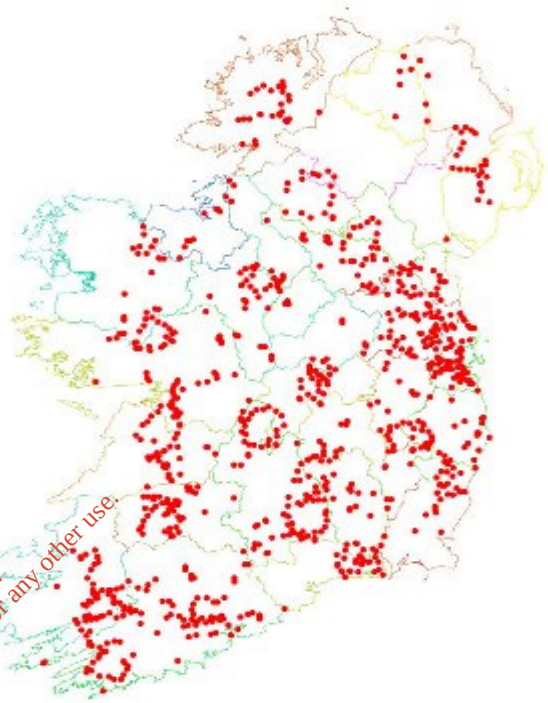
All bat species are in decline as they face many threats to their highly developed and specialised lifestyles. Many bats succumb to poisons used as woodworm treatments within their roosting sites (Racey, P. A. & Swift, S. 1986). Agricultural intensification, with the loss of hedgerows, treelines, woodlands and species-rich grasslands have impacted bat species also. Habitual roosting or hibernation sites in caves, mines, trees and disused buildings are also often lost to development. Summer roosts are prone to disturbance from vandals. Agricultural pesticides accumulate in their prey, reaching lethal doses (Jefferies, D. J. 1972). Chemical treatments in cattle production sterilise dung thus ensuring that no insects can breed within it to be fed upon by bats. Likewise, river pollution, from agricultural runoff, reduces the abundance of aquatic insects. Road building, with the resultant loss of foraging and roosting sites is a significant cause in the reduction of bat populations across Europe.

Extinction

As recently as 1992, the greater mouse-eared bat *Myotis myotis* became the first mammal to become extinct in Britain since the wolf in the 18th century.

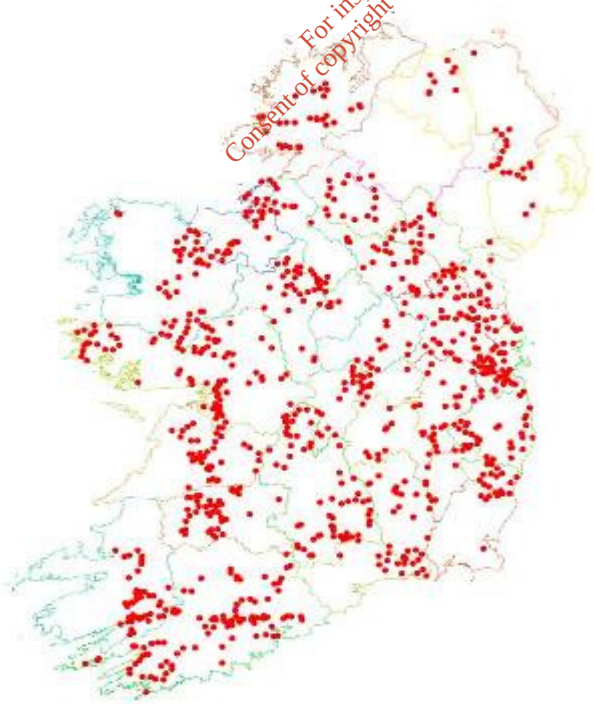
9.2 Description of bat species known or expected on site

Brief species accounts and current known distribution (maps from *Bat Conservation Ireland*)



Common pipistrelle *Pipistrellus pipistrellus*

This species was only recently separated from its sibling, the soprano or brown pipistrelle *Pipistrellus pygmaeus*, which is detailed below (Barratt, E. M. et al, 1997). The common pipistrelle's echolocation calls peak at 45 kHz. The species forages along linear landscape features such as hedgerows and treelines as well as within woodland.

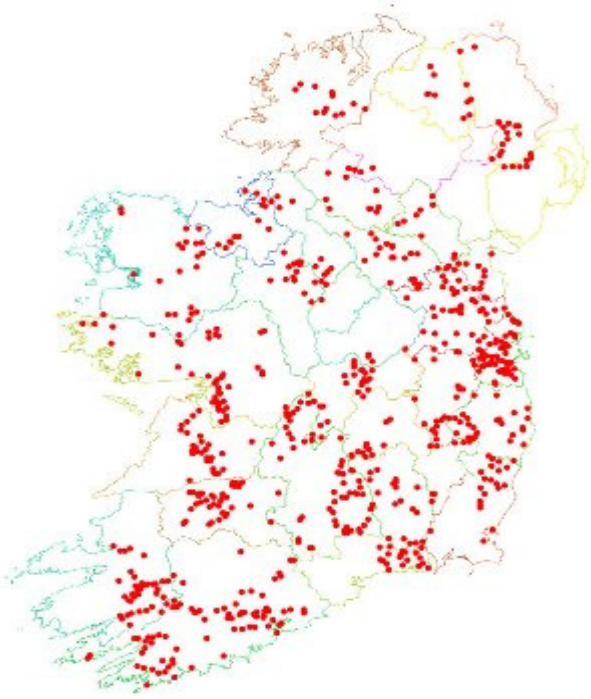


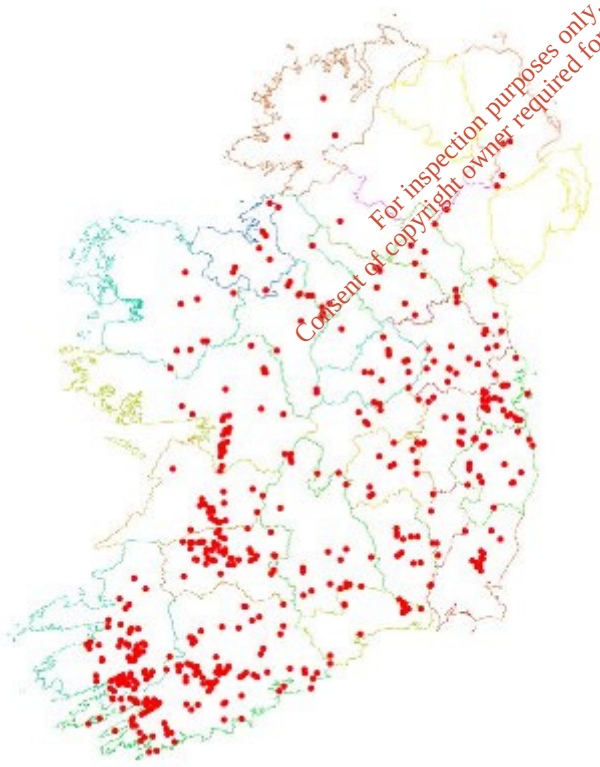
Soprano pipistrelle *Pipistrellus pygmaeus*

The soprano pipistrelle's echolocation calls peak at 55 kHz, which distinguishes it readily from the common pipistrelle. The pipistrelles are the smallest and most often seen of our bats, flying at head height and taking small prey such as midges and small moths. Summer roost sites are usually in buildings but tree holes and heavy ivy are also used. Roost numbers can exceed 1500 animals in mid-summer.

Leisler's bat *Nyctalus leisleri*

This species is Ireland's largest bat, with a wingspan of up to 320mm; it is also the third most common bat, preferring to roost in buildings, although it is sometimes found in trees and bat boxes. It is the earliest bat to emerge in the evening, flying fast and high with occasional steep dives to ground level, feeding on moths, caddis-flies, and beetles. The echolocation calls are sometimes audible to the human ear being around 15 kHz at their lowest. The audible chatter from their roost on hot summer days is sometimes an aid to location. This species is uncommon in Europe and Ireland holds the largest national population. The species is considered as *Internationally Important*.





Brown long-eared bat *Plecotus auritus*

This species of bat is a 'gleaner', hunting amongst the foliage of trees and shrubs, and hovering briefly to pick a moth or spider off a leaf, which it then takes to a sheltered perch to consume. They often land on the ground to capture their prey. Using its nose to emit its echolocation, the long-eared bat 'whispers' its calls so that the insects, upon which it preys, cannot hear its approach (and hence, it needs oversize ears to hear the returning echoes). As this is a whispering species, it is extremely difficult to monitor in the field as it is seldom heard on a bat detector. Furthermore, keeping within the foliage, as it does, it is easily overlooked.

10. Photographic record

Plate 1: Former office building at southern site boundary

Plate 2: High stone walls of roofless structure at the centre of the site

Plate 3: Modern 'lean-to' shed adjoining older walls at north of site

Plate 4: Roofless, stone structure at eastern boundary of site

HABITAT ASSESSMENT

OF THE LIMERICK GASWORKS SITE

Prepared By
Moore Group
Environmental Services

For
Bord Gáis Éireann

September 2009

Job No. 09LK02

TABLE OF CONTENTS **PAGE:**

1. INTRODUCTION

1.1. Background and scope

Moore Group was commissioned by Bord Gáis Éireann to produce carry out a habitat assessment at the Limerick Gasworks site in order to establish the baseline flora and fauna on the site. The Limerick Gasworks site is located on the Dock Road, Limerick, see Figure 1.

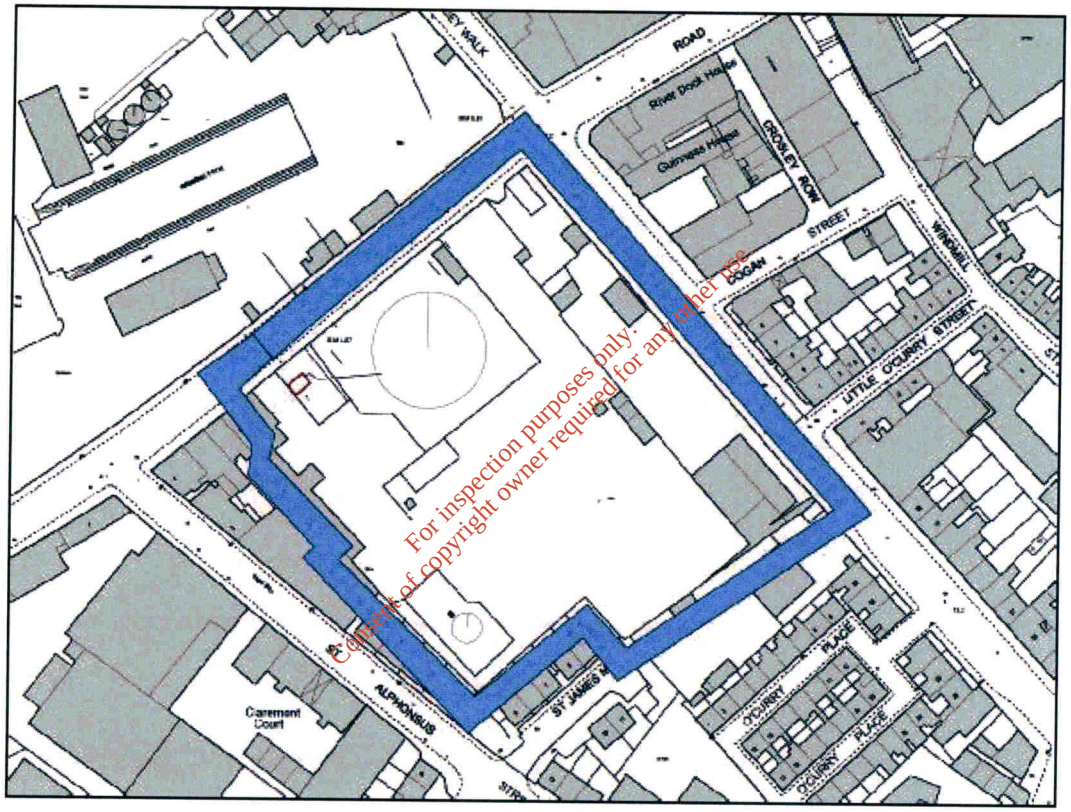


Figure 1. Site location in red on the Dock Road, Limerick.

(Ordnance Survey Ireland License No EN 0020009 © Ordnance Survey Ireland & Government of Ireland)

1.2. Approach

This assessment concentrates on ecological features within the proposed development area of particular significance, any primarily designated habitats and species. This may include habitats/species listed in Annex I, II and IV of the EU Habitats Directive, rare plants listed in the Flora Protection Order and other semi-natural habitats of conservational value. There are no designated areas of conservation within the boundary of the site. However, the River

Shannon which is a designated Special Area of Conservation (SAC) is located in close proximity to the subject site, see Section 2.2 below.

1.2.1. Desk study

Information relating to the ecology of the development area was collated by carrying out a desktop study. Literature was sourced for information on the distribution of rare or protected fauna species and the rare plants database link at www.npws.ie was consulted. Coordinates of potential rare plant records were checked using Ordinance Survey maps and linked to the development using aerial photographs.

1.2.2. Field survey

The site was visited in on 13th August 2009 with the aim of gathering information on the habitats present in the development area. Areas which were targeted during desktop assessment were investigated in closer detail. Habitats in the proposed development site were classified according to the Heritage Council publication "A guide to habitats in Ireland" (Fossitt 2000). This publication sets out a standard scheme for identifying, describing and classifying wildlife habitats in Ireland. This form of classification uses codes to classify different habitats based on the plant species present. Species recorded in this report are given in both their English and Latin names. Latin names for plant species follow the nomenclature of "An Irish Flora" (Webb, Parnell & Doogue 1996).

Birds and any mammal signs were surveyed while walking the various habitats which lie within the area.

A preliminary bat detector survey was carried out to determine the potential usage of the site by bats and to establish the potential locations of bat roosts.

2. EXISTING ENVIRONMENT

2.1. Description of Existing Environment

The Limerick Gasworks site is located on the Dock Road, Limerick. The predominant habitat when investigated on the 13th August 2009 was Recolonising bare ground and artificial buildings. The site is typically urban in character and in general, is of low ecological value in terms of flora present.

2.2. Designations

The site has no formal conservational designations. There are no rare plants indicated for the proposed development area. The closest designated habitat to the site is the Lower River Shannon SAC (Site Code 002165), see Figure 2.

Figure 2. Location of the site (red) in relation to the Lower River Shannon SAC.

2.3. Habitat and ecological site descriptions

There were three main habitats identified during fieldwork on the 13th of August 2009 within the study area. These habitats and their classification codes are listed in Table 2 below. Representative photographs of the plan area are presented in Appendix I.

Habitat	Habitat Category	Habitat Type
Exposed Rock and Disturbed Ground	**(ER)** Exposed Rock	**(ER2)** Exposed calcareous rock
	(ED) Disturbed Ground	**(ED3)** Recolonising bare ground
(B) Cultivated and built land	**(BL)** Built land	**(BL3)** Buildings and artificial surfaces

Table 2. Habitat categories and codes in the proposed development area (Fossitt 2000).

2.3.1. Exposed calcareous rock (ER2)

This habitat was recorded to the south-eastern boundary of the site and consists of an area of exposed bedrock that forms the foundations of St. James Mall, see Photos 1 & 2. The rock was covered densely with Ivy (*Hedera helix*) in places and occasional Shining cranesbill (*Geranium lucidium*).

2.3.2. Recolonising bare ground (ED3)

This is the predominant habitat within the study area covering areas of open space, see Appendix I. Typical species of recolonising bare ground included; Ragwort (*Senecio jacobea*), Dandelion (*Taraxacum officinale*), Wildflower trefoil (*Trifolium campestre*), Dock (*Rumex* spp.), Plantain (*Plantago* spp.), Smooth hawksbeard (*Crepis capillaris*), Butterfly bush (*Buddleia davidii*), Thistle (*Cirsium* spp.) and Red valerian (*Centranthus ruber*).

Other species recorded throughout the site included Sycamore saplings (*Acer pseudoplatanus*) and Willow saplings (*Salix* spp.). Nettle (*Urtica dioica*) and Bramble (*Rubus fructicosus)* were also common.

2.3.3. Wet grassland (GS4)

This habitat is associated with low lying land to the north-eastern end of the site, see Photo 4. The area is relatively small and species include Nettles (*Urtica dioica*), Silver weed (*Potentilla anserina*), Creeping cinquefoil (*Potentilla reptans*) and soft rush (*Juncus effuses*).

2.3.4. Buildings and artificial surfaces (BL3)

This habitat was associated with various old buildings on site, the bases of gasworks reservoirs and recently vacated offices.

2.4. Description of Fauna

2.4.1. Mammals

A preliminary bat detector survey was undertaken using a Pettersson D230 bat detector on the night of the 13th of August 2009. Weather conditions were ideal with night time temperatures at 16°C, calm conditions and a cloudless sky. The survey commenced at 20:00 and ranged throughout the site where accessible and the first bat was recorded at 21:32. A common pipistrelle (*Pipistrellus pipistrellus*), was recorded feeding within the central redbrick ruin and along the adjoining wall to the east, see Photos 4 & 5. It was joined by a second Common pipistrelle at 21:40 and these were the only bats recorded on site.

Both bats foraged consistently until the end of the survey at 22:30 in this building ruin. It was not possible to determine whether the bats entered the site from the outside or are roosting in the walls of the building. There are numerous potential bat roosts in the various buildings on site.

A more comprehensive bat survey has been recommended in order to determine the full potential of the site for bats.

2.4.2. Birds

Only Wood pigeon *(Columba palumbus)* were recorded using the site. These birds are listed as green on the BirdWatch Ireland Birds of Conservation Concern website and thus have a favourable conservation status. All birds are legally protected under the Wildlife Act 1976/Wildlife Amendment Act 2000.

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Legislation Sources

Birds Directive (79/409/EEC) Council Directive of 2 April 1979 on the conservation of wild birds.

Habitats Directive (92/43/EEC) Council Directive of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

Government of Ireland, 2000, Wildlife (Amendment) Act, 2000, Stationery Office, Dublin.

APPENDIX I

Field Photographs

Photo 1. Showing the exposed calcareous rock on the south eastern boundary of the site.

Photo 2. Showing exposed calcareous rock on the south eastern boundary of the site

Photo 3 Disturbed ground and the recently vacated offices.

Photo 4. Location of the recorded bat activity on site.

Photo 5. Location of bat activity on site.

PEST PREVENTION PROGRAMME
BORD GÁIS SITE, DOCK ROAD, LIMERICK

1. **Purpose**
   So that rodents are monitored and controlled on the site in a safe and effective manner.

2. **Scope**
   Pest prevention programme for rats and mice on the entire complex including the surrounds of same.

3. **Specification**
   - 8 routine rat/mice treatments per annum by a trained technician including call out as necessary.
   - Internal plastic tamper resistant bait boxes placed at strategic points throughout the office building.
   - 30 no. external heavy duty tamper resistant bait boxes throughout the site surrounds.

4. **Schedule of Work**
   - Eight routine visits per annum with a free call out service

5. **Responsibility**
   - Work carried out by Dave Haugh
   - Assessor John Fitzgerald

6. **Records**
   Record book and checklist and held on site

7. **Procedure**
   Tamper resistant bait boxes are installed at specified locations around the office building and site.

   At each follow up visit the bait boxes are opened and examined for evidence of rodent activity. Spoiled baits are replaced and unspoiled baits, which have rodent incisor marks, are rotated in order to expose an intact edge for further monitoring.

   Carcasses of dead rodents are removed from site for burial or incineration. All findings are recorded. All work is carried out in accordance with the attached method statement.

METHOD STATEMENT
SAFE SYSTEM OF WORK
BORD GÁIS, DOCK ROAD, LIMERICK

INTRODUCTION

Preparation of a Method Statement is used to identify:

1. Potential hazards and risks which Rentokil, the employer or neighbouring landowners or the public may be exposed to whilst works are being carried out.

2. Risks of damage to the employer's or neighbouring landowner's plant, structures or infrastructure.

3. Difficulties that may be encountered in carrying out the work.

4. Possible contravention of employer's procedures, rules *etc* and the need for any necessary permits and licences.

5. How the work is to be carried out in order to remove or minimise hazards, risks and difficulties.

6. Hazards and risks associated with special plant and procedural needs of the site and assess the way the work is to be carried out in liaison with other employers' external bodies as appropriate.

7. How the Rentokil Supervisors will ensure works are carried out as intended and the extent of supervision required.

PROCEDURE

General

This Method Statement is not intended to be a working document for the operators. Each of the following items indicates how the contract and works will be completed.

Scope of Works

Rentokil will be setting up a pest prevention programme on site. This programme would be in place throughout the term giving all round cover against possible rodent infestation on site.

Work to commence after the approval from Bord Gais Dock Road Limerick.

Check operation of systems and note any defects prior to commencement of work.

Labour Force
The number of Service Technicians will be allocated in accordance with the specific site requirements and relate to the size of the job and the time allocated by the Sales Manager.

All Service Teams report to an allocated Service Manager who monitors the progress of the quality of the service provided performance and Health & Safety. The Service Manager for this work will be Mick Fitzgerald Mobile No. 087-2610227

Training
Rentokil Initial is proactive in its approach to training at branch, area and divisional level. Additional service meetings are held to inform staff of new methods and relevant safety issues.

Tools to be used
- PPE
- Hilti
- Hammer

Transportation
Secure parking facilities are in place for the Rentokil Pest Control van.

Emergency Procedures
In the case of a Health & Safety emergency there is direct contact with Rentokil Initial via the Emergency Contact Number (061 217700), which is manned 24 hours a day. This deals with any Health & Safety emergency.

Storage
Storage of items required will be in Rentokil Pest Control vans.

First Aid
The Rentokil Service Technicians are provided and maintain proper and sufficient First Aid facilities in accordance with the Health and Safety (First Aid) Regulations. These facilities are readily available for use at all times.

Accident Reports
Accidents are reported immediately by phone to the Branch Manager. Report forms are completed and sent to the Group Health & Safety Manager at Rentokil Initial Head Office and the Divisional Health & Safety Manager. The branch investigates the incident/accident and reports in line with Reporting of Injuries, Disease and Dangerous Occurrence Regulations (RIDDOR).

Equipment and Personal Protective Equipment (PPE)
All tools, equipment and PPE are maintained by the Service Staff. The equipment is checked quarterly by the Service Supervisor using the equipment checklist to ensure that it is maintained properly and is safe to use. Technicians also check the equipment in their van on a monthly basis.

Personal Protective Equipment
- Safety boots
- Hard Hat
- Gloves
- Vis-Jackets
- Overalls
- Safety glasses
- Torch

Non-conformance

Any non-conformance is documented on the Defect Report and Work Programme Card by the Service Technicians on site. The Service Manager will also document any non-conformance as part of the assessment carried out during any site visit. These reports are copied to the Branch Manager for discussion and action when required.

Fire Precautions

The service staff is made aware of the site-specific fire precautions. The client will provide this information and point out where the local Fire Instruction Notices are prior to commencing installation.

Evacuation - assemble at contractor assembly point in main car park. Exit via nearest safe exit.

Signed: John Fitzgerald
Rentokil Pest Control
2nd March 2012

Signed:
Client Representative