

Bat Risk Assessment Survey

Boldon Colliery Risk Assessment

May 2014

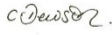

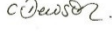


**Durham Wildlife Services
Rainton Meadows
Chilton Moor
Houghton-le-Spring
Tyne & Wear
DH4 6PU**

info@dwsecology.co.uk

Quality Control

Report Status: Draft

	Name	Qualifications	Natural England Licence No.	Signature	Date	Version
Prepared by	Claire Dewson (Senior Ecologist)	MSc MCIEEM	CLS 01855		20.06.14	1
Reviewed by	Ian Craft (Principal Ecologist)	MSc MCIEEM	CLS01736		20.06.14	1
Issued by	Claire Dewson (Senior Ecologist)	MSc MCIEEM	CLS 01855		20.06.14	1

BAT RISK ASSESSMENT SURVEY

Boldon Colliery WMC, Boldon Colliery, South Tyneside

CONTENTS

		PAGE No.
1.0	EXECUTIVE SUMMARY	1
2.0	INTRODUCTION	2
2.1	Background	2
2.2	Site Description	2
2.3	Survey Objectives	2
3.0	METHODOLOGY	3
3.1	Desk Study	3
3.2	Survey Approach	3
3.3	Buildings	3
3.4	Surveyor Experience	3
4.0	SURVEY RESULTS	5
4.1	Desk Study and Consultation Response	5
4.2	Habitat Description	5
4.3	Internal/ External Surveys	5
5.0	ASSESSMENT	9
5.1	Constraints to Survey	9
5.2	Potential Impacts of Development	9
5.3	Legislation	9
5.4	National Planning Policy Framework	10
5.5	UK and Local Biodiversity Action Plans (BAP)	10
5.6	Legal Implications of Proposed Development	11
6.0	RECOMMENDATIONS AND MITIGATION	12
6.1	Survey Conclusions	12
6.2	Enhancement Measures	12
7.0	REFERENCES	13

Appendices

Appendix A Figures

Figure 1: Site Location

Figure 2: Aerial showing surrounding habitat

Figure 3: Building Reference Plan

Appendix B Site Photographs

Appendix C Report Conditions

1.0 EXECUTIVE SUMMARY

- 1.0.1 Durham Wildlife Services was commissioned by Mr Andrew Davison, April 2014 to undertake a building risk assessment for bats at Boldon Colliery WMC, South Tyneside. The approximate National Grid Reference for the centre of the site is NZ 343 623.
- 1.0.2 The survey is required to accompany a planning permission application to demolish the working men's club and build seven residential properties. The building risk assessment survey took place on 25th April 2014 and was undertaken by Claire Dewson (licensed bat worker no CLS01855) and Paul McGinn.
- 1.0.3 Based upon the building features recorded during the external and internal assessment, the habitats present within the local area and the usage of the area by bats evidenced by the consultation with Durham Bat Group, the property as a whole was assessed as having medium potential to contain roosting bats.
- 1.0.4 As such, two nocturnal surveys were recommended during the bat activity season (May to September), in order to gain a satisfactory understanding of how the building is utilised by bats, and its importance to local bat populations.
- 1.0.5 As further surveys are considered necessary, further recommendations are outside of the scope of this report and will be provided following the completion of the nocturnal surveys.

2.0 INTRODUCTION

2.1 Background

2.1.1 Durham Wildlife Services was commissioned by Mr Andrew Davison in April 2014 to undertake a building risk assessment for bats at Boldon Colliery WMC, South Tyneside. The approximate National Grid Reference for the centre of the site is NZ 343 623.

2.1.2 The survey is required to accompany a planning permission application to demolish the working men's club and build residential properties. The building risk assessment survey took place on 25th April 2014 and was undertaken by Claire Dewson (licensed bat worker no CLS01855) and Paul McGinn.

2.2 Site Description

2.2.1 The site is situated in Boldon Colliery, which lies approximately 5km south west of South Shields town centre in South Tyneside (Figure 1, Appendix A). The survey area comprises a two storey semi - detached brick built building in a residential estate situated in the centre of the village of Boldon Colliery. The building is located in a relatively urbanised landscape but appears to be well connected to Station Burn Local Wildlife Site which is approximately 300metres north of the site which consists of a river, grasslands and plantations, allotments are located in the next street as well as plantations 150m to the south west of the site (Figure 2, Appendix A).

2.3 Survey Objectives

2.3.1 The objectives of the survey were to assess the building in terms of its potential to support, or actual evidence of, roosting bats. This assessment will form the basis of recommendations for further survey work and/or mitigation and compensation for bat species, where appropriate.

3.0 METHODOLOGY

3.1 Desk Study

A request was issued to Durham Bat Group for any information regarding protected/controlled species on, or in the direct vicinity of the site. The Magic website was searched for the details of Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Nature Reserves (LNR) within 2km of the site.

3.2 Survey Approach

The survey for bats involved external and internal examination of the property following the methodology outlined in the Bat Worker's Manual (Mitchell-Jones and Mcleish 2004). The survey was undertaken by Claire Dewson (licensed bat worker No CLS01855) and Paul McGinn on 25th April 2014.

3.3 Buildings

3.3.1 The building exterior was visually assessed for potential access points and evidence of bat activity in April 2014. Features which have potential as access points were sought, such as small gaps in barge/soffit/fascia boards, raised or missing ridge tiles or flashing and gaps at gable ends. Evidence that potential access points were actively used by bats including staining within gaps and bat droppings or urine staining under gaps was recorded. Indicators that potential access points were likely to be inactive included the presence of cobwebs and general detritus within the access.

3.3.2 The interior of the building was also visually assessed where possible for evidence of bat activity and/or for the potential to be used by bats. Evidence of a roost can be determined by the presence of a dead or live bat, concentrated piles or scattered droppings, food remains such as insect wing fragments as well as scratch marks and/or staining.

3.4 Surveyor Experience

3.4.1 Claire Dewson (Licence number CLS01855)

Claire has been an active member of Durham Bat Group for over ten years where she gained her scientific and conservation bat licences in 2003 (Class Licence number CLS01855). Claire has co-ordinated and undertaken a range of commercial surveys ranging from barns, individual properties to large complex buildings such as schools and housing estates. The surveys have included a range

of techniques such as risk assessments through to dusk/ dawn surveys and transects. She has also been involved in preparing and submitting EPSM bat licences for a range of developments.

3.4.2 **Paul McGinn**

Paul is an Assistant Ecologist and has been carrying out bat surveys for 4 years. He continues to work towards obtaining his Natural England licence through taking part in bat activity surveys, training events and by carrying out voluntary bat monitoring projects at The National Trust's Gibside Estate, where radio tracking equipment is used. In a professional capacity, Paul has carried out bat risk assessments and nocturnal surveys on a number of projects from individual trees and properties to large scale housing developments and complex buildings such as schools.

4.0 SURVEY RESULTS

4.1 Desk Study and Consultation Response

4.1.1 The results obtained from the MAGIC search of designated areas show that there are no National Nature Reserves (NNRs), Sites of Special Scientific Interest (SSSIs) or Local Nature Reserves (LNRs) within 2km of the site.

4.1.2 A request was sent to Durham Bat Group seeking any information regarding bat species on, or within 2km of the site. The results show two recorded roosts within 2km of the site and four roost outside 2km of the site.

4.2 Habitat Description

Station Burn situated 300m north of the site is made up of an ancient river valley landscape, emerging woodland and meadows and is approximately 12 hectares in size. Residential gardens and plantations provide links to Station Burn Local Nature Reserve and to reclaimed area of land known as Colliery Wood 0.45km to the east, thus forming a corridor of very good quality foraging habitat for bats. Beyond these areas, land use is a mix of arable, residential and amenity greenspace providing less suitable bat foraging habitat. (Figure 2, Appendix A).

4.3 Internal/ External Surveys

4.3.1 Full details of the findings of the building assessment can be found in Table 2 overleaf with photographs in Appendix B and building plan shown in Figure 3, Appendix A. In summary, no evidence of bats was found (please note section 5.1.1). Externally the brickwork, window frames and soffits were in good condition with no visible gaps or mortar crevices noted. However, gaps were noted along the edge of hanging tiles located on the south-east facing wall (Photograph 3, Appendix B) and around the base of a north-west facing extraction pipe, between the roof tiles and membrane, where the pipe emerges through the roof (Photograph 4, Appendix B). An endoscope was used to view behind the hanging tiles of the bay window to the front of the property during the risk assessment survey in March. No evidence of bats, such as old bat droppings, was noted behind the edge hanging tiles where access for bats was possible. The central area of the bay window hanging tiles and the hanging tiles at the top of the gable wall could not be searched using endoscopy as they could not be reached. However, these areas would not be affected by the proposed development which relates only to the rear of the property. From the proposed plans, it can be seen that the roof of the new two-storey extension will meet the existing roof below the location of the extraction pipe. However, a roost entrance can be many metres from where the bats actually

roost and the lifting of any roof tiles has the potential to cause destruction/disturbance to a bat roost, should bats be present.

4.3.2 Overall the building was assessed as having low to medium potential to contain roosting bats due to the proximity to good foraging habitat and the presence of wooden cladding as well as lots of gaps under the cladding, around wooden windows and under tiles, flashing on all elevations of the building. Table 1 below shows the features considered when attributing a level of potential to a building.

4.3.3 **Table 1** Features typical of buildings within the different risk categories (BCT 2012).

Likelihood of bats being present	Feature of the building or built structure and its location
Higher	Pre-20th century or early 20th century construction. Agricultural buildings of traditional brick, stone or timber construction. Large and complicated roof void with unobstructed flying spaces. Large (>20 cm) roof timbers with mortise joints, cracks and holes. Entrances for bats to fly through. Poorly maintained fabric providing ready access points for bats into roofs, walls, bridges, but at the same time not too draughty and cool. Roof warmed by the sun, in particular south facing roofs. Weatherboarding and/or hanging tiles with gaps. Low level of disturbance by humans. Bridge structures, follies, aqueducts and viaducts over water and/or wet ground. For rarer species, buildings or built structures in the core area of their distribution. Buildings and built structures in proximity to each other providing a variety of roosting opportunities throughout the year. Buildings or built structures close to good foraging habitat, in particular mature trees, parkland, woodland or wetland, especially in a rural setting
Lower	Modern, well-maintained buildings or built structures that provide few opportunities for access by bats. Small, cluttered roof space. Buildings and built structures comprised primarily of prefabricated steel and sheet materials. Cool, shaded, light or draughty roof voids. Roof voids with a dense cover of cobwebs and no sections of clean ridge board. High level of regular disturbance. Highly urbanised location with few or no mature trees, parkland, woodland or wetland. High levels of external lighting.

4.3.4 **Table 2** Building Structural Features.

Building Code (Figure 3, Appendix A)	Building construction details	Structural features present						Other structural features of note	Potential bat access and roosting points	Internal features	Evidence
		Gables	Barge boards	Soffit Boards	Fascia Boards	Flashing	Roof void				
A Photos 1 Appendix B	Two storey working men's club with a combination of roof styles flat and pitched with slate tiles resulting in a gable end. Externally the building is rendered.	✓		✓	✓	✓	✓		Southern Aspect Loose slates on roof with gaps around flashing. Vertical crack in wall on the gable end and gaps around the roof joints. Eastern Aspect Gaps around the chimney and under flashing. Gaps in plaster work and under wooden cladding (photograph 4, appendix b), gaps under the soffits around wooden beams.	Unable to access roof void.	None.
B	Double storey brick built residential property that is integral to the working men's club. Pitched slate roof, with ridge tiles and a combination of wood and PVC windows.	✓	✓		✓	✓	✓		Southern Aspect Gaps between roof and brick work under barge boards. Ground floor stone lintels gaps leading into the wall and around window (photograph 3, appendix b). Western Aspect Complex roof structure; gaps in and around windows. Northern Aspect Slates loose and missing with gaps around barge boards and guttering.	No roofing membrane, 4 small holes in roof and 1 larger hole. Feral pigeon nesting with 1 egg. Dormer windows and sky lights also present.	None

C	Flat roof double storey 1970's extension in brick with sections rendered.		✓						<p>Western Aspect A few gaps in plaster work with few gaps under cladding.</p> <p>Northern Aspect Gaps under flashing but wooden cladding well sealed.</p>	No roof void.	None
---	---	--	---	--	--	--	--	--	--	---------------	------

5.0 ASSESSMENT

5.1 Constraints to Survey

5.1.1 The bat risk assessment survey was conducted in April, when bat species may be hibernating or may not yet have moved to their summer roosts, and visible evidence of their presence is less likely to be encountered. A lack of evidence should not therefore be considered proof of a lack of bat roost, as roosts remain protected throughout the year, including periods during which they are not occupied.

5.1.2 Due to the cluttered nature and inaccessibility of some of the roof void, it was not possible to thoroughly search all areas of the loft space for bat droppings or other evidence of bats.

5.2 Potential Impacts of Development

5.2.1 It is not possible to determine the potential short and long term impacts of the development on bats, as there has been no nocturnal survey work conducted on the buildings, and therefore it is not known if bats are roosting within the structures. Should the development continue without further survey work, it is possible that a roost may be present within the building and any works to this area may result in the disturbance and/or destruction of a bat roost and/or the killing/injuring of individual bats during the works.

5.3 Legislation

5.3.1 All bat species and their roosts in Britain are protected under the Wildlife and Countryside Act 1981 (as amended) (WCA) through their inclusion on Schedule 5. The implementation of the Countryside and Rights of Way Act 2000 (CRoW 2000) has amended the WCA 1981 to include 'reckless' damage to, or destruction of a roost, and disturbance of bats whilst in a roost.

5.3.2 Bats are also included on Annex IV of Council Directive 92/43/EEC of 21st May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (known as the Habitats Directive). As a result of the United Kingdom ratifying this directive, all British bats are protected under The Conservation of Habitats and Species Regulations 2010. Combined, these make it an offence to kill, injure, capture or disturb bats or obstruct access to, damage or destroy roosts.

5.3.3 Paragraph 41(1) (b) of the Regulations states: A person who deliberately disturbs wild animals of any such (European Protected) species, is guilty of an offence. For

the purposes of this paragraph, the disturbance of animals includes in particular any disturbance which is likely: -

- a. to impair their ability-
 - i. To survive, to breed or reproduce, or to rear or nurture their young, or
 - ii. In the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- b. to affect significantly the local distribution or abundance of the species to which they belong.

5.3.4 Under the law, a bat roost is any structure or place used for shelter or protection e.g. a building, bridge or tree. Bats use many roost sites and feeding areas throughout the year and they tend to re-use the same roosts for generations.

5.4 National Planning Policy Framework

5.4.1 The NPPF outlines government planning policies and how they should be applied within local authorities. The framework places an emphasis on sustainable development, encouraging the re-use of land that has previously been developed over using land that has a higher environmental value and by minimising impacts on biodiversity. The NPPF states that developments should aim to conserve or enhance biodiversity and encourages opportunities to incorporate biodiversity in and around developments.

5.5 UK and Local Biodiversity Action Plans (BAP)

5.5.1 Several species of bat are listed as UK priority species (UKBAP, 2007). The common pipistrelle was listed as priority species on the UK Biodiversity Action Plan in 1998 owing to a 70% decline in their population between 1978 and 1993 (UKBAP, 1998). However, they are not listed under the 2007 UK Priority Species list.

5.5.2 There are eleven species of bat known to occur in County Durham, of which eight are known to breed. The distribution of bats is concentrated along the woodland of the three main river corridors; the Derwent, the Wear and the Tees, and the movement of bats from one valley to another is somewhat restricted by topography as well as intensive agriculture and industry. This makes known habitat corridors between river valleys particularly important. Durham has a generic local BAP which aims to cover all species of bats recorded within Durham as species of conservation concern (DBAP, 2006).

5.6 Legal Implications of Proposed Development

- 5.6.1 It is not currently known whether the proposed works will contravene legislation relating to bats and their roosts as nocturnal surveys have not been undertaken and therefore the presence or absence of roosting bats has not been determined.

6.0 RECOMMENDATIONS AND MITIGATION

6.1 Survey Conclusions

6.1.1 In summary, the area to be affected by the works have low - medium potential to contain roosting bats, and as such two nocturnal surveys have been recommended.

6.1.2 Based upon the building features recorded during the external and internal assessment, the habitats present within the local area and the usage of the area by bats evidenced by the consultation with Durham Bat Group, the property as a whole was assessed as having low to medium potential to contain roosting bats. It is therefore recommended that two nocturnal surveys are conducted during the bat activity season (May to September), in order to gain a satisfactory understanding of how the demolition of the building is utilised by bats, and its importance to local bat populations.

6.1.3 The nocturnal survey requirement is determined through reference to the recommended bat survey guidance (BCT, 2012) and based upon the assessed potential of the surveyed buildings to contain roosting bats.

6.2 Enhancement Measures

6.2.1 As further surveys are considered necessary, further recommendations are outside of the scope of this report and will be provided following the completion of the nocturnal surveys.

7.0 REFERENCES

Bat Conservation Trust (2012) *Bat Surveys Good Practice Guidelines*.

Conservation of Habitats and Species Regulations (2010)

<http://jncc.defra.gov.uk/page-1379>

Mitchell-Jones, J. (2004) Bat Mitigation Guidelines. English Nature.

Mitchell- Jones, A. J & Mcleish, A. P. (2004) *3rd Edition Bat Workers' Manual*.
Joint Nature Conservation Committee, Peterborough.

<http://magic.defra.gov.uk/> (viewed on 28/03/2014)

Northumberland Biodiversity Partnership (2008) Bats Species Action Plan.

<http://www.nwt.org.uk/sites/default/files/files/Bats.pdf>

UK BAP Priority Species (2007) <http://jncc.defra.gov.uk/page-5170>

UK Biodiversity Group (UKBAP) (1998) Tranche 2 Action Plans. In: *Vol 1 – Vertebrates and Vascular Plants*. English Nature, Peterborough.

APPENDIX A

Figures



Legend

2km



site



Known Bat Roosts



Contains Ordnance Survey data © Crown copyright and database right 2014



Rainton Meadows
 Chilton Moor
 Houghton-le-Spring
 Tyne and Wear
 DH4 6PU

info@durhamwildlifeservices.com
 www.durhamwildlifeservices.com

Project	Boldon Colliery Working Mens Club
Title	Location Plan
Client	Andrew Davdson
Date	16th May 2014
Ref	Figure 1



Legend

A	Building Reference Code
	Site Boundry



Rainton Meadows,
Chilton Moor,
Houghton-le-Spring,
Tyne & Wear
DH4 6PU

info@dwsecology.co.uk
www.dwsecology.co.uk

Project	Boldon Colliery WMC
Title	Building Reference Plan
Client	Andrew Davison
Date	12/05/2014
Ref	Figure 2

APPENDIX B
Selected Photographs



Photograph 1 Property exterior (eastern elevation)



Photograph 2 Gaps under slates



Photograph 3 Gap around windows



Photograph 4 Gaps under flashing



Photograph 5 Gaps under wooden cladding

APPENDIX C
Report Conditions

DURHAM WILDLIFE SERVICES

REPORT CONDITIONS Boldon Colliery Working Mens Club, South Tyneside

This report is produced solely for the benefit of Mr. Andrew Davison and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

Unless otherwise instructed any records collected will be submitted to the body holding environmental records for the area.

This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to Durham Wildlife Services. In time improved practices, fresh information or amended legislation may necessitate a re-assessment. Opinions and information provided in this report are on the basis of Durham Wildlife Services using due skill and care in the preparation of the report.

This report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times.

This report is limited to those aspects reported on, within the scope and limits agreed with the client under our appointment. It is necessarily restricted and no liability is accepted for any other aspect. It is based on the information sources indicated in the report. Some of the opinions are based on unconfirmed data and information and are presented as the best obtained within the scope for this report.

Reliance has been placed on the documents and information supplied to Durham Wildlife Services by others but no independent verification of these has been made and no warranty is given on them. No liability is accepted or warranty given in relation to the performance, reliability, standing etc. of any products, services, organisations or companies referred to in this report.

Whilst skill and care have been used, no investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather related conditions.

Although care is taken to select monitoring and survey periods that are typical of the environmental conditions being measured, within the overall reporting programme constraints, measured conditions may not be fully representative of the actual conditions. Any predictive or modelling work, undertaken as part of the commission will be subject to limitations including the representativeness of data used by the model and the assumptions inherent within the approach used. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions.

The potential influence of our assessment and report on other aspects of any development or future planning requires evaluation by other involved parties.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. Durham Wildlife Services accept no liability for issues with performance arising from such factors

February 2008