# BAT SURVEY REPORT

## PENDERYN SURFACE Mine

CLIENT

cology



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**Bat Report** 

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## 1 INTRODUCTION

### Background

1.1 Sylvan Ecology were commissioned to complete an emergence survey and, where necessary, additional works to detail mitigation in relation to bats, for the extension of the current mining operations at Penderyn surface mine.

#### Aims of the study

1.2 The aims of the study are to:

- estimate the size and status of any existing bat roost;
- determine the potential impact on any bat roosts from the proposed works; and
- outline the mitigation strategy which will be required to minimise impact on bats within the site and to comply with any legal requirements.



## 2 LEGISLATION AND PLANNING POLICY

#### Legislation pertaining to bats

2.1 All species of British bat are European Protected Species protected under *The Conservation of Habitats, & Species Regulations 2010.* 

#### 2.2 It is therefore an offence to:

- recklessly, intentionally or deliberately kill, injure or capture (take) bats;
- deliberately disturb bats (whether in a roost or not);
- damage, destroy or obstruct access to bat roosts;
- possess or transport a bat or any part of a bat, unless acquired legally; and
- sell, barter or exchange bats, or parts of a bat.
- 2.3 Developments that compromise the protection afforded to bats or roosts under the provisions of the *Conservation of Habitats, & Species Regulations 2010* will require a European Protected Species (EPS) licence from the Countryside Council for Wales (NRW). Three tests must be satisfied before this licence (to permit otherwise prohibited acts) can be issued:
- 2.4 Regulation 44(2)(e) states that licences may be granted to "*preserve* public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment."
- 2.5 Regulation 44(3)(a) states that a licence may not be granted unless "*there is no satisfactory alternative*".
- 2.6 Regulation 44(3)(b) states that a licence cannot be issued unless the action proposed "*will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range*".



## 3 FIELD SURVEY

#### External inspection

- 3.1 The quarry face was subject to an external inspection for its suitability to support roosting bats on the 16th June 2016. The survey was conducted under optimal condition by a suitably experienced ecologist. The site was inspected by licenced bat worker David Price MCIEEM (55145:OTH:CSAB:2014). Mr Price has 11 yrs professional consultancy experience and has worked on a large variety of bat related projects throughout the UK.
- 3.2 High powered binoculars were used to assess the quarry face for its suitability to support roosting bats; taking into account the following general criteria:
  - surrounding habitat;
  - temperature regime;
  - light levels;
  - protection from the elements;
  - potential roosting locations; and

#### Emergence survey

- 3.3 Considering the height of the caves from the quarry floor, the visual observations required in traditional emergence surveys are likely to be unreliable. Thus, the decision was made to undertake long term static monitoring at the quarry face to inform future surveys. The results of the monitoring will be used to determine whether additional emergence surveys to count bat numbers are required.
- 3.4 An Anabat express detector was secured above the quarry and a 30m extension cable was lowered over the edge so that the microphone was positioned outside potential roosting space.
- 3.5 Monitoring was started on the 17<sup>th</sup> Aug 2016 and proceeded for five consecutive nights. The survey was to assess if features identified during the initial survey were being used by roosting bats.



## 4 RESULTS

#### External inspection

- 4.1 The quarry face has what appears to be two cracks that could be two small caves.
- 4.2 An inspection with high power binoculars suggests that the higher cave may go into the quarry wall, a more precise estimate of the extent of the cave was not possible due to access limitations (i.e. height above ground). A closer examination of the lower cave suggests the cave does not go into the wall and is not suitable for roosting bats.

Photograph of the higher cave



#### **Detector Survey Results**

Monitoring was started on the 17th Aug 2016 and proceeded for five consecutive nights. The data logs from the Anabat showed that the detector worked correctly, however no bats were recorded over the five nights.

4.3



## 5 INTERPRETATION AND RECOMMENDATIONS

- 5.1 Considering the zero result from the static monitor, it's very likely that the cave is not suitable for roosting bats. It's likely the cave is shallow and exposed to external elements, or potentially allows rainwater to pass through internal cracks.
- 5.2 Given the results of the survey, it is considered that the quarry extension is unlikely to result in any impacts on bats and it is considered that an EPS Licence will not be required for the development.

## 6 **REFERENCES**

Altringham, J.D. (2003) British Bats. Harper Collins, London.

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