
Project:	Preston and South Ribble Flood Risk Management Scheme (FRMS)		
Our reference:	401729	BIM reference:	ENV0000009C-ZZ-XX-TN-EN-03010068
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Subject:	Bat Emergence and Re-entry Survey, Tree 5		

1 Introduction

1.1 Background

Mott MacDonald Limited has been commissioned by the Environment Agency (EA) to undertake an Outline Business Case (OBC) for a proposed flood risk management scheme (FRMS) in Preston. In support of this, an initial Preliminary Roost Assessment (PRA) (Ref: ENV0000009C-MMD-ZZ-ZZ-RP-EN-03010035) was undertaken on 22nd May 2019 which follows the River Ribble through Preston (See appendix A).

The scheme aims to improve the Standard of Protection (SoP) afforded to the areas of Preston and South Ribble to reduce flood risk to approximately 2000 households and 450 businesses. This is envisaged by renewing, raising and installing new flood defence walls and embankments along the River Ribble and the River Darwen.

The PRA report from 22nd May 2019 recommended that emergence/re-entry surveys should be undertaken on trees 5, 7 and 8 if they are scheduled to be removed or obstructed by proposed structures or lighting. This is in line with the BCT guidelines (Collins J, 2016), to establish the risk to roosting bats that are present along the scheme. Currently, there are only plans for potential removal of T5 from the scheme and therefore this document reports the finding from those surveys.

1.2 Objective

The objective of this report is to identify any bat roosts within T5 which may be affected by the scheme works. This technical note provides details of any bats found to be using the tree and bat activity within the surrounding area along with details of any recommendations where appropriate.

1.3 Legislation

Bats and their roosts are protected by the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitat and Species Regulations 2017 (as amended). In summary, it is an offence to intentionally or deliberately kill, injure, disturb or capture any bats or damage, destroy, or obstruct access to any structure used for breeding or resting by them. Seven species are also listed on Section 41 of the National Environment and Rural Communities (NERC) Act 2006.

This document is issued for the party which commissioned it and for specific purposes connected with the above-captioned project only. It should not be relied upon by any other party or used for any other purpose.

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2 Methodology

Bat Conservation Trust (BCT) Guidelines (Collins et al. 2016) recommends that for trees deemed to be of moderate potential for roosting bats, one dusk and one dawn survey are to be undertaken non-consecutively, with at least one survey being carried out between May to August and the last survey to be carried out no later than September. Owing to time constraints and adverse weather conditions, surveys were unable to be undertaken in line with BCT guidelines with the first survey not being done until September and the second being carried out outside the recommended survey season, in October. However, weather conditions during the surveys that were conducted were deemed to be adequate by the relevant ecologists. Emergence surveys started 30 minutes prior to sunset until 90 minutes after sunset. Dawn re-entry surveys started 90 minutes prior to sunrise until sunrise. All surveyors were equipped with Elekon Batlogger M detectors. Two surveyors were present on each survey. Dates and any limitations associated with each location are detailed within Table 1 below.

Table 1: Roost Surveys

Location	Date	Survey Type	Limitations
Tree 5	6 th September 2019	Dusk	Owing to time and weather constraints it was not possible to conduct first survey before September
Tree 5	2 nd October 2019	Dawn	Sub-optimal survey outside of guideline timeframe owing to time and weather constraints

Source: Mott MacDonald, 2019

3 Results

Two surveyors were present on each survey either side of the crack willow tree, one on the west aspect to survey the split in the trunk directly and one on the east, so all aspects of the tree could be seen. No bats were seen to emerge or re-enter the willow tree at any point during the surveys, although foraging behaviour was recorded in the surrounding area. A summary of the results from the surveys can be found below in Table 2.

Table 2: Tree 5

Date	Temperature	Wind	Cloud Cover	Sunrise/Sunset	Species Recorded	Time Recorded	Number of Passes	Comments
2 nd September 2019	19	2	30%	19:42	Common pipistrelle	20:30	2	Not seen but most likely foraging along the river banks
2 nd October 2019	6	1	0%	07:19	Common pipistrelle	05:52	3	Seen heading west along river and foraging

Source: Mott MacDonald, 2019

4 Conclusions and Recommendations

4.1 Conclusions

Surveys undertaken during September and October 2019 did not record any bats using Tree 5 for roosting purposes. In addition, minimal foraging activity was recorded within the surrounding area.

4.2 Recommendations

Due to the surveys not following the BCT guidelines, it is not possible to classify this tree as not containing a bat roost. However, taking into consideration the limited bat activity recorded during the surveys, and that no bats were seen to emerge or re-enter the tree, this can be downgraded to having low bat roosting potential and therefore, it is recommended that further precaution is taken by soft-felling Tree 5 should this be necessary for the Scheme. This should involve the sectional removal of the Potential Roosting Feature highlighted in the Preliminary Roosting Assessment (Appendix B) and left on the ground for 48 hours before further cutting or chipping.

5 References

Collins, J. (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines*, 3rd Edition, Bat Conservation Trust, London.

Mott MacDonald, (2019). Preston and South Ribble Flood Risk Management Scheme, Bat Preliminary Roost Assessment (Ref: ENV0000009C-MMD-ZZ-ZZ-RP-EN-03010035)

Appendices

A. Bat Tree Location Plan




Key to Symbols

- High Roosting Potential Tree
- Moderate Roosting Potential Tree
- Moderate Roosting Potential Structure
- Low Roosting Potential Tree
- Group 1 (G1)
- Group 2 (G2)
- Phase 1 Survey Area
- Phase 2 Survey Area

Source

Preliminary Roost Assessment: Mott MacDonald, September 2019.
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Contains OS data © Crown Copyright and database right 2019
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P01	02/10/2019	IB	For Information	AW	NS
Rev	Date	Drawn	Description	Ch'k'd	App'd



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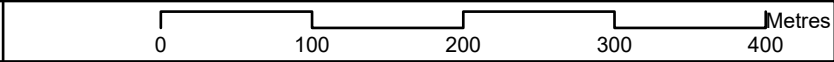
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Agency**

Title

Preston and South Ribble FRMS
Bat Preliminary Roost Assessment
Tree Location Plan

Designed	A Weston	Check	A Weston	
Drawn	I Biskup	Coordination	S Cottell	
GIS Check	S Glover	Approved	N Soames	
Scale at A3	Status	Rev	Security	
1:5,000	INF	P01	STD	

Drawing Number
ENV0000009C-ZZ-ZZ-DR-EN-030100067



B. Potential Roosting Feature

Description

A crack willow with a large split on the western aspect of the tree. The potential roosting feature as highlighted, should be removed as one complete section during felling and left on the ground for 48 hours, before further cutting or chipping.

Photo

