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OVERTON WEIR
ERBISTOCK
WREXHAM
LL13 0DR

BUILDING DEVELOPMENT

POTENTIAL ROOST FEATURE ASSESSMENT OF TREES



Ash and Alder trees, Overton Weir, Erbistock.

Client	**Natural Resources Wales (River Restoration)**
Planning Authority	**Wrexham County Borough Council**
Grid Reference	**SJ35554221**
Dates of Surveys	**08 April 2024**
Reference	**042024/PRF/GM**

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1.0 SUMMARY

The proposed work is to partially dismantle the Overton weir, as part of a river restoration scheme (LIFEDeeRiver). The weir is causing significant turbulence of the water, which is inhibiting/restricting the movement of fish species upstream. To facilitate the proposed scheme, several semi-mature – mature trees on the Eastern bank of the River Dee will need to be felled, pollarded or coppiced, to enable an access ramp to be constructed, to provide working access to the river.

No obvious PRFs were observed in the Ash (T37) or Alder (T38). The Alder (T38) has light Ivy growth on the trunk. Whilst Ivy is often thought of having potential for roosting bats during the summer months, often as a temporary night-time resting place, between feeding/foraging sessions, there are actually very few records of confirmed bat roosts in Ivy. The few records of bat roosts in Ivy are on large diameter veteran trees, where the Ivy is fully exposed to the sun. The Ivy on the mature Alder tree (T38) was therefore assessed as having negligible potential for hibernating bats and low potential for a summer night-time resting place.

The jagged branch stub observed on the Alder (T39) was assessed as having negligible potential for hibernating bats and a low potential as a night-time summer resting place.

The small cavities in the trunk of the dead semi-mature Oak (T7) dead-ended after 4-5cm depth and were assessed as having negligible potential for roosting bats.

No evidence of recent bat activity was observed, in the form of droppings, polishing of wood, staining from urine/droppings, odour etc. Only the Ivy on the mature Alder (T38) and the jagged branch stub on the mature Alder (T39) were assessed as having a low potential for roosting bats (during the summer months). If these features have previously been used by bats, it is likely to be a single (or low numbers of bats), during the summer months.

The conclusion is the trees inspected have negligible – low potential for roosting bats and no evidence of recent bat activity was observed.

There is no foreseen long-term impact from loss of roosts and no impact on bat flightlines and foraging habitat so no foreseen long-term impact from fragmentation and isolation.

If appropriate mitigation is provided, Reasonable Avoidance Measures are implemented and followed, and bat-friendly features are provided as wildlife enhancements, the predicted impact on the favourable conservation status of locally recorded bats is low.

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2.0 INTRODUCTION

Stephen Cutmore, a licensed bat worker (NRW[S091618/1]), was instructed by Gethin Morris, Senior Officer (River Restoration), Natural Resources Wales, to carry out an assessment of the trees (identified with orange paint spots and a numbered metal tree tag), located on the East bank of the River Dee, adjacent to Overton Weir, Erbistock, Wrexham, LL13 0DR. I was requested to primarily inspect a mature Ash tree (T37) and a mature Alder tree (T38), then afterwards check the other marked trees. The purpose of the survey was to identify Potential Roost Features (PRF) in the trees, assess their potential for roosting bats and to inspect the features to see if there is any evidence of recent bat activity.

2.1 Site Location

The site is located at Grid Reference SJ35554221. The trees are located on the East bank of the River Dee, adjacent to the Overton Weir at Erbistock.

2.2 Proposed work

The proposed work is to partially dismantle the Overton weir, as part of a river restoration scheme (LIFEDeeRiver). The weir is causing significant turbulence of the water, which is inhibiting/restricting the movement of fish species upstream. To facilitate the proposed scheme, several semi-mature – mature trees on the Eastern bank of the River Dee will need to be felled, pollarded or coppiced, to enable an access ramp to be constructed, to provide working access to the river.

3.0 METHODOLOGY

3.1 Potential Roost Feature Assessment

The trees were surveyed on the morning of 8 April 2024. The trees were visually inspected from the ground, (using binoculars as required), to identify any Potential Roost Features (PRFs) [cavities, cracks/splits in trunks/branches, etc.]. *If* any PRFs with moderate/high potential for bats were identified, a climbing inspection would then be carried out, in order to carry out a close visual inspection of the PRFs, utilising a high power torch [Cluson Clulite CB2 Clubman Deluxe] and an endoscope [Ridgid Micro CA-350] to determine if there was any evidence of recent bat activity. A visual survey was also carried out to see if there was any evidence of active bird nesting.

4.0 SURVEY LIMITATIONS

This is solely an ecological survey report and cannot comment on topics outside this discipline. If additional advice is required, it is strongly recommended that other professionals are consulted.

1) information contained in this report covers only the trees that were examined:

2) the inspection is limited to visual examination of the trees.

3) there is no warranty or guarantee, expressed or implied, that Protected Species may not utilise the site after the surveys have been completed, that are not discovered utilising the sites during the inspection. This report gives an assessment of the suitability of the habitats on the site to support Protected Species, to determine if there is a need for further surveys.

4) this report has been prepared for the sole use and benefit of the client. Any liability of Stephen Cutmore Arboricultural & Ecological Services shall not be extended to any third party.

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5.0 SURVEY RESULTS

5.1 Potential Roosting Features

Mature Ash (T37 Tag No.0495)
No obvious PRFs were observed.

Mature Alder (T38 Tag No.0496)
The top of the main stem was dead, but no cavities or other obvious PRFs were observed.

The trunk has some light Ivy covering on the trunk. The Ivy was assessed as having a low potential for roosting bats. During the summer months, Ivy may provide cover for single bats, often as a temporary night-time resting place, between feeding/foraging sessions. During winter months, the Ivy does not provide sufficient shelter or protection from the weather and low temperatures, so has a negligible potential for hibernating bats.

Mature Alder (T39 Tag No.0497)
Only one PRF was observed in the form of a jagged branch stub, at circa 3.5 - 4m height on the North side of the trunk. No cavity was observed extending into the trunk. A longitudinal split along the branch stub provided some cover, but the feature was open at the sides and as well as being exposed to high natural light, it is also exposed to the weather, rendering it liable to becoming wet during rainy weather. This PRF was assessed as having negligible potential for hibernating bats and a low potential as a night-time summer resting place.

Dead Semi-mature Oak (T7)
PRFs were observed in the form of small cavities developing in the trunk at circa 3m and 4m height. The cavities dead-ended after 4-5cm depth. The PRFs were assessed as having a negligible potential for roosting bats.

5.2 Nesting birds

No active bird nests were observed in the trees marked with orange spray paint (indicating proposed tree work - removal/pollarding/coppicing).

6.0 CONCLUSIONS

No obvious PRFs were observed in the Ash (T37) or Alder (T38). The Alder (T38) has light Ivy growth on the trunk. Whilst Ivy is often thought of having potential for roosting bats during the summer months, often as a temporary night-time resting place, between feeding/foraging sessions, there are actually very few records of confirmed bat roosts in Ivy. The few records of bat roosts in Ivy are on large diameter veteran trees, where the Ivy is fully exposed to the sun. The Ivy on the mature Alder tree (T38) was therefore assessed as having negligible potential for hibernating bats and low potential for a summer night-time resting place.

The jagged branch stub observed on the Alder (T39) was assessed as having negligible potential for hibernating bats and a low potential as a night-time summer resting place.

The small cavities in the trunk of the dead semi-mature Oak (T7) dead-ended after 4-5cm depth and were assessed as having negligible potential for roosting bats.

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6.0 CONCLUSIONS (continued)

No evidence of recent bat activity was observed, in the form of droppings, polishing of wood, staining from urine/droppings, odour etc. Only the Ivy on the mature Alder (T38) and the jagged branch stub on the mature Alder (T39) were assessed as having a low potential for roosting bats (during the summer months). If these features have previously been used by bats, it is likely to be a single (or low numbers of bats), during the summer months.

The conclusion is the trees inspected have negligible – low potential for roosting bats and no evidence of recent bat activity was observed.

7.0 IMPACT ASSESSMENT

7.1 Short-term impact

If bats were present in the trees to be removed, they could be disturbed/injured/killed if works start when present between spring and summer. Timing of operation will minimise disturbance.

7.2 Long-term impact – roost losses

The jagged branch stub feature observed in the mature Alder (T39) and the light Ivy growth on Alder (T38) were both assessed as having a negligible potential for hibernating bats and a low potential as a night-time summer resting place. No evidence of recent bat activity were observed in any of the trees inspected, in the form of droppings, feeding remains, staining from urine/droppings, polishing of wood near the entrance due to oils in the bat's fur, odour etc. Mitigation will be provided in the form of tree-hollow type woodcrete bat boxes and bird nesting boxes, which will be installed on the mature trees to be retained on the site, to provide compensation for loss of potential roost habitat and to provide a biodiversity enhancement. There is no foreseen long-term impact from loss of roosts.

7.3 Long-term impact – fragmentation and isolation

The proposed tree felling and pollarding & coppicing work is to facilitate the construction of an access ramp, in order for plant & machinery to enter the river to remove the weir structure. New trees will be planted on site as part of the post-development landscaping works, which will compensate for any loss of habitat. The pollarded & coppiced trees will likely produce an abundance of new growth, to regenerate a new crown. There are other existing trees and hedges within close vicinity to the work site, so there will be no impact on bat flightlines and foraging habitat and no foreseen long-term impact from fragmentation and isolation.

7.4 Predicted scale of impact

If appropriate mitigation is provided, Reasonable Avoidance Measures are implemented and followed, and bat-friendly features are provided as wildlife enhancements, the predicted impact on the favourable conservation status of locally recorded bats is low.

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8.0 MITIGATION

8.1 Tree Felling

The Industry Best Practice guidelines are that where possible, to minimise the risk from working at height (e.g. using rope and harness), the trees should be accessed using a Mobile Elevated Work Platform (MEWP), if site access and conditions are suitable. Where it is not practical for a MEWP to be used, the recommendation is the tree be dismantled using an excavator with a safety cab and fitted with a 'tree shear' attachment. If there are no suitable/practical alternatives, then a climbing arborist (using at least two separate anchor ropes) should section-dismantle the tree, or the tree be felled near the base from the ground.

The tree work should be carried out by a suitably qualified and experienced arborist, and the work should conform to B.S.3998 'Recommendations for Tree Work', (2010).

If the trees are subject to legal protection (e.g. Tree Preservation Order/Conservation Area), written permission **must** be obtained from the Local Planning Authority (LPA), before carrying out any tree work. Failure to obtain the required permission could result in prosecution of both the tree owner and the contractor carrying out the work. Certain works (e.g. removing dead branches, felling dead or decayed trees) are classed as exempt, but it is advised that the LPA are given 5 days' notice before carrying out such works.

The contractor should carefully check the branch or trunk sections for defects (cracks, splits, cavities etc.). If the trees are being dismantled in sections, then any branch/trunk sections without any defects can be cut and 'free dropped' to the ground (if safe to do so), or lowered down on ropes, or lowered down by a tree shear etc.

If there are any defects present with bat potential, the branch/trunk section should first be checked for bats by a licenced ecologist, using a torch and endoscope (as appropriate).
If bats are discovered, then work to that tree must cease and Natural Resources Wales be consulted and informed of what species and number of bats encountered. A derogation licence will likely need to be obtained to avoid an offence being committed and mitigation provided, before work could continue on that tree.

If no bats are observed, the branch/trunk should be sectioned in 600mm lengths and the sections lowered to the ground, using a rigging rope and soft slings, or lowered down in the MEWP, or lowered by the tree shear etc. Once safely on the ground, each length should again be examined from the top for the presence of roosting bats. This operation should be continued until all potential areas are removed from the tree.

The tree work should be carried out by a suitably qualified and experienced arborist, and the work should conform to B.S.3998 'Recommendations for Tree Work', (2010).

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8.0 MITIGATION (continued)

8.1 Tree Felling

If bats are discovered during the tree work

The amendments to the European Habitat Regulations came into force in August 2007, which means that the 'incidental result defence', which previously covered acts that were the incidental result of an otherwise lawful operation, such as a planning permission, has now been removed. Therefore, if any bats are encountered, work should stop immediately and not resume until advised by an ecologist. If any bats are discovered that do not fly, they will be carefully taken by hand by the ecologist and released immediately at the site into a bat box installed in a suitable tree. If this is not possible they will be rehabilitated at a suitable centre with later release at the site. In the event of bats being discovered, Natural Resources Wales must be informed as to what species, numbers and what action was taken.

Nesting birds

It is recommended that the tree work is carried out outside of bird nesting season (1 March – 30 September). If the tree work has to be carried out during bird nesting season, the day before the work is due to commence, the trees should be re-inspected to check for active bird nests.

If active bird nests are discovered (eggs or chicks in nest), the tree work will have to be suspended until the chicks have hatched and the fledglings flown the nest.

8.2 Mitigation and wildlife enhancement

To mitigate for any loss of habitat, it is recommended that 3 No. tree hollow-type woodcrete bat boxes are installed in suitable mature trees on the site, or in the near vicinity. The bat boxes should be orientated to face between South and West, to maximise solar radiation for warmth and fixed high enough (3m+) to avoid predation by cats and other predators. Suitable boxes include Harlech Woodstone bat box, or Schwegler [or equivalent] (e.g. 2FDFP bat box 45 or 2FN bat box 55).

It is recommended that a range of woodcrete bird nesting boxes [26mm diam. hole and 32mm diam. hole bird boxes, robin/wren and open-fronted Blackbird nesting boxes] be installed in suitable mature trees on the site, or in the near vicinity, to benefit the local bird population.

It is recommended that new tree and hedge planting are carried out on the site, to mitigate for the loss of habitat and to provide a biodiversity enhancement. There is sufficient available space to plant trees that would have a medium - large mature size (e.g. Beech, Cedar, Corsican Pine, Crack Willow, Hornbeam, Horse Chestnut, Hybrid Poplar, Lime, Lombardy Polar, London Plane, Common Oak, Scarlet Oak, Scots Pine, Sessile Oak, Sweet Chestnut, Sycamore, Tulip Tree, Walnut, White Willow), which would provide more climate adaption benefits with regards Climate Change, than trees with a small mature size.

Some suitable small-medium mature size trees include Alder, Amelanchier, Aspen, Birch, Black Tupelo, Cercis, Cherry, Crab Apple, Field Maple, Gingko, Goat Willow, Katsura, Maples (Japanese, Paperbark and Snakebark varieties), Mulberry, Sorbus, Strawberry Tree, Sweet Gum, Wild Service Tree, which have attractive leaves/bark and good Autumn colour.

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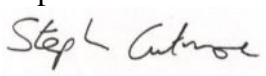
8.0 MITIGATION (continued)

8.2 Mitigation and wildlife enhancement

Suitable hedge species to provide habitat for nesting birds include Beech, Blackthorn, Hawthorn, Hazel, Hornbeam, Holly, Privet, Raoul. [Note: Common Yew will not be suitable, as the berries and foliage can be toxic to horses and livestock].

The tree planting work should be carried out by a suitably qualified and experienced arborist/horticulturist, and the work should conform to B.S.8545 'Trees: from nursery to independence in the landscape – Recommendations' (2014). A post-planting maintenance programme should be implemented, to ensure the trees successfully establish (watering, weeding, checking tree ties, formative pruning etc.).

Report written and compiled by



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9.0 REFERENCES

The following publications were referred to in preparing this report.

Bat Conservation Trust (version 3, 2009). *Bats and Lighting in the UK: Bats and the Built Environment Series*. The Bat Conservation Trust, London.

British Standards Institution (2013). *BS42020 ' Biodiversity. Code of Practice for planning and development'*. BSI Standards Limited, London.

BTHK (2018), *Bat Roosts in Trees – A Guide to Identification and Assessment for Tree-care and Ecology Professionals*. Exeter: Pelagic Publishing.

Collins, J. (ed) (2023) *Bat Surveys for Professional Ecologists : Good Practice Guidelines (4th edn.)*. The Bat Conservation Trust. London.

Environment (Wales) Act 2016. National Assembly for Wales.

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

Mitchell-Jones, A.J. and McLeish, A.P. (2004) *The Bat Workers Manual (3rd edn)*. Joint Nature Conservation Committee. Peterborough.

Planning Policy Wales (Ed.11, 2021). National Assembly for Wales.

Russ, J (2012) *British Bat Calls – A Guide to Species Identification (1st edn).* Pelagic Publishing. Exeter.

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APPENDIX 1 – Site maps



Yellow line indicates trees inspected in working area.

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APPENDIX 2 – Photographs



Photo 1: LHS Ash (T37), RHS Alder (T38).



Photo 2: Light Ivy growth on Alder (T38).



Photo 3: Longitudinal split in jagged branch stub on Alder (T39).

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APPENDIX 2 – Photographs



Photo 4: Small cavity in Oak (T7) at 3m height dead-ends after 4cm.



Photo 5: Small cavities in Oak (T7) at 3m and 4m height.

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