

# Wild Wings Ecology



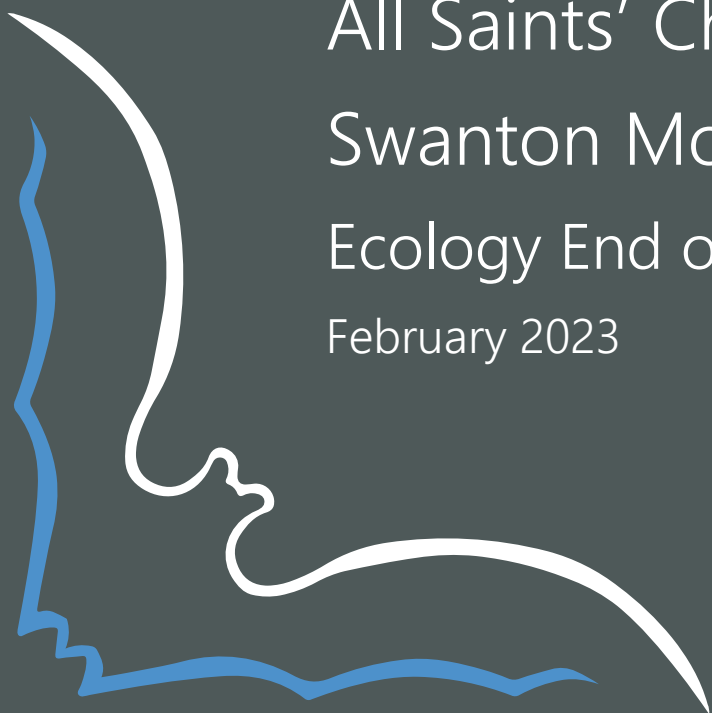
## Bats in Churches Project:

All Saints' Church

Swanton Morley

Ecology End of Project Final Report

February 2023



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## Contents

1. Summary.....	4
2. Introduction.....	5
2.1. Purpose.....	5
2.2. Ecology Report & Management Plan (May 2018) .....	5
3. Implementation of Management Plan .....	7
3.1. Phase 1 Works (April 2019).....	7
3.2. Phase 2 Works (May 2020).....	7
3.3. Monitoring.....	10
3.3.1. Bat population.....	10
3.3.2. Church impacts.....	13
4. Conclusions.....	14
5. Appendix 1 – Bats in Churches Class Licence Site Registration .....	15
6. Appendix 2 – monitoring details (2019-2022).....	35
6.1 2019 season.....	35
6.2 2020 season .....	43
6.3 2021 season.....	50
6.4 2022 season .....	57

## 1. Summary

As part of Natural England's 'Bats in Churches Project' (funded by Heritage Lottery Fund), Wild Wings Ecology was contracted to implement an ecological management plan (and monitor outcomes) with the aim of reducing the impact of bats on All Saints' Church, Swanton Morley, whilst protecting the church's bat population.

The church is located in the village of Swanton Morley in Norfolk and is home to a maternity colony of Natterer's bats, along with day roost use by common pipistrelles, soprano pipistrelles and serotine.

The Natterer's bats have multiple roost locations throughout the church, but typically favour the east and west ends of the nave and south aisle for maternity use. Bats access the church interior from the south chancel eaves. Impacts on the church include staining and bleaching to the walls, floors, pews, monuments and organ pipes from droppings and urine, which creates a substantial cleaning burden.

Following detailed bat surveys of the church in 2017, a Management Plan was created with the aim of reducing the impact of the bats on the church whilst maintaining the church's bat population. The plan involved construction of a range of artificial roost features in the south chancel eaves void (where the bats enter through) and erection of a large exterior bat box close to their access area (east end of nave). This was coupled with temporary blocking of bat access from the south chancel eaves void through to the church interior, with a phased approach (access restricted in the first year, blocked in the second year). This was carefully monitored with bat activity surveys, radio-tracking and roost cameras. The temporary blocking was subsequently made permanent with plaster repair works to close-up access gaps.

There are encouraging signs of uptake of the artificial roost features by the bats (as observed on the roost monitoring cameras). However, new bat access points have arisen since the blocking work was undertaken, some of which are quite complex and it is not currently clear how these could be blocked. Consequently bats continue to access and roost in the church interior meaning that bat impacts on the church, whilst somewhat reduced, have not been eliminated. It is hoped that over time bat use of the artificial roost features may increase (it can take a long time for bats to fully adopt artificial roost features). It is recommended that monitoring of the church continues to better understand new access routes and that the potential for blocking these is explored.

## 2. Introduction

### 2.1. Purpose

Wild Wings Ecology was contracted to implement an ecological management plan with the aim of reducing the impact of bats on All Saints' Church, Swanton Morley, whilst protecting the church's bat population. The work was undertaken for Natural England's 'Bats in Churches Project' (funded by Heritage Lottery Fund).

### 2.2. Ecology Report & Management Plan (May 2018)

A detailed **Ecology Report** was produced for the Bats in Churches Project Pilot (Development Phase) in May 2018 (Insight Ecology), detailing surveys undertaken, describing the bat use of the church (species, numbers, roost locations and access points), bat impacts on the church and a proposed ecological management plan. Please refer to the report for details, the report summary is provided below.

#### **Ecology Report summary**

An initial meeting was held with the PCC on 8<sup>th</sup> June 2017 to discuss the project aims and objectives and gain an understanding of the bat-related issues faced by the church. A 'Light Touch Survey' was also conducted on 8<sup>th</sup> June 2017, to collect information on the impacts of bats at the church and included a visual inspection of the building and interview with the churchwarden. Impacts from the bats on the church included staining/bleaching to floors, walls, pews, brasses and burials as well as creating a substantial cleaning burden. Likely roost locations and potential bat access points were identified.

Subsequent bat activity surveys were carried out on 8<sup>th</sup> June, 12<sup>th</sup> July and 1<sup>st</sup> August (dusk emergence surveys) and 23<sup>rd</sup> June 2017 (dawn re-entry survey) to gain an understanding of how bats were using the building. The surveys confirmed the presence of a maternity colony of Natterer's bats and small numbers of (day roosting) common pipistrelles. The peak count was of 78 Natterer's bats during the August dusk emergence survey. Main roost locations were at the chancel arch/above the central ridge beam at the chancel (east) end of the church, at the nave west (tower) end arch/above the central ridge beam at the west end of the church and in gaps between beams and the wall at the north side of the south aisle (tower end). Bats entered/exited the church from the chancel eaves, primarily on the south side, with minor use of the north side.

A progress meeting was held at the church on 24<sup>th</sup> November 2017. Survey results were shared and solutions suggested and discussed with the Parochial Church Council (PCC),

church architect, Diocesan Advisory Committee (DAC) and project staff. The preferred approach to reducing the impact of bats on the church was agreed and finalised.

The proposed approach (subject to the findings of 'update surveys' in 2019) is to install three 'rafter bat boxes' (to be monitored with infrared cameras) on the interior side of the south chancel roof, connected to the bats' access points into/out of the church. Subsequently, bats will be radio-tagged to enable monitoring of roost locations (and the colony to be located, if it leaves the church). Post-emergence, all remaining access gaps in the chancel interior will be temporarily blocked with foam. The bats will retain access to the chancel eaves' void (south and north sides) and the rafter bat boxes for roosting. The bat colony's response will be carefully monitored. If the approach is successful (for the bats and for the church), the temporary blocking would be made permanent.

### 3. Implementation of Management Plan

All licensable activities were carried out under a Bats in Churches Class Licence Site Registration from Natural England (Appendix 1 (5.)).

#### 3.1. Phase 1 Works (April 2019)

The first phase of works involved construction of three rafter bat boxes in the roof of the south side of the chancel. These extended from the interior side (see Figure 1 B.-E. through to the eaves roof void (ending at exterior eaves level, see Figure 2 K.). A variety of other roost features were constructed in the eaves roof void, along with four tiny 'no glow' infrared cameras (Figure 2 I.) to enable monitoring of use of the rafter bat boxes/roost features. Interior gaps through to the south and north chancel eaves voids were temporarily blocked with foam sponges (Figure 1 C. & E.). On the south side, two gaps were left open to maintain access to the church interior for one season/allow the bats to get used to the modifications. Two additional access points on the south side were fitted with one-way excluders (enabling bats to pass from the church interior into the eaves roof void but not back into the church at these locations, Figure 2 J.). A large bat box was also fitted at the south-east corner of the nave (adjacent to the south chancel) to provide additional roosting options (Figure 2 L.).

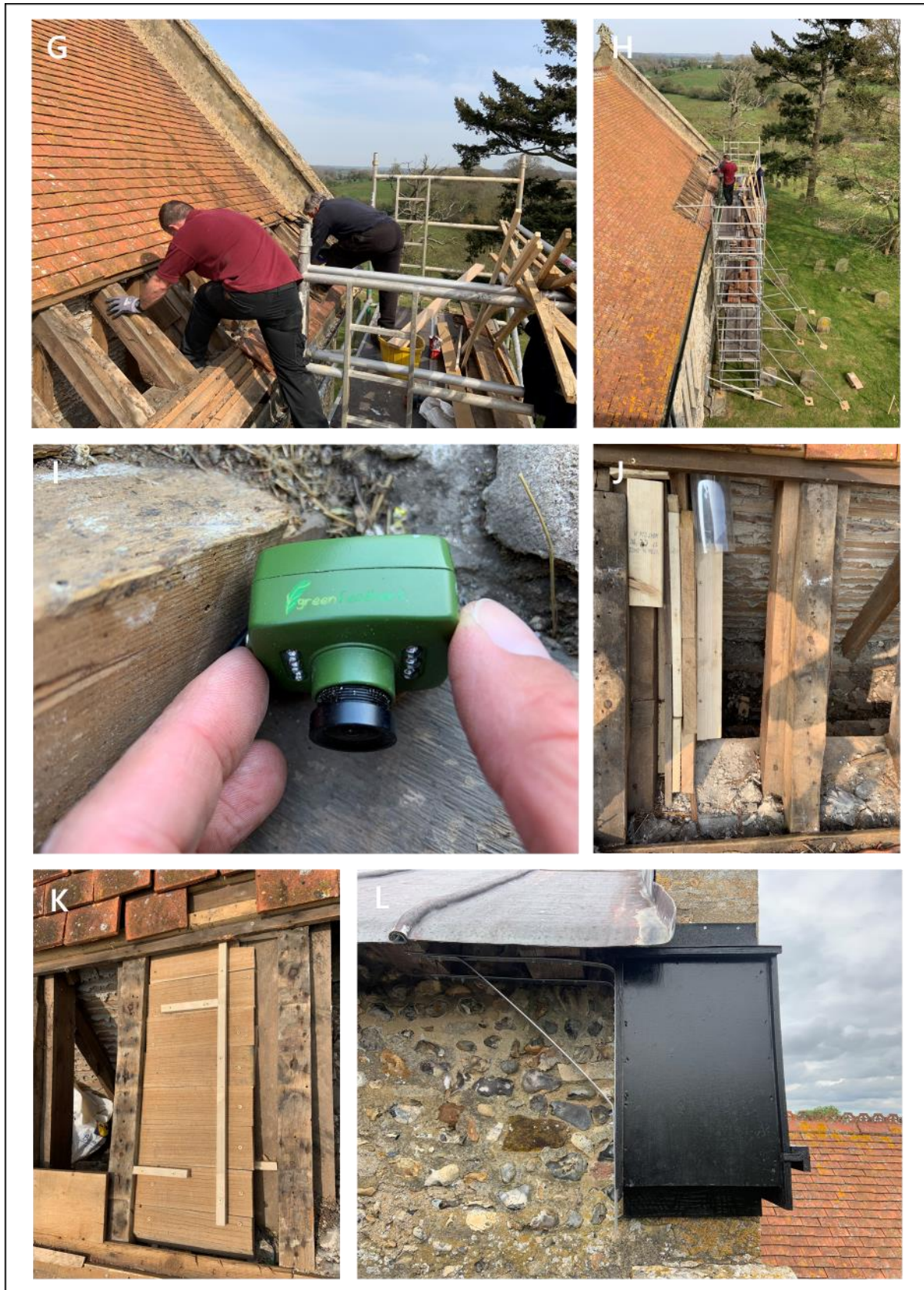
#### 3.2. Phase 2 Works (May 2020)

In the second phase of works, the two 'two-way' access points were fitted with one-way excluders post-emergence (Figure 3 N.), thereby blocking bat access back into the church interior at these locations. Subsequently the temporary foam blocking of the plaster gaps on the north and south sides of the chancel were permanently blocked with plasterwork repairs, following the church architect's specifications.



**Figure 1.** Photographs of interior works (chancel) – rafter bat boxes (south side) and blocking of gaps in plasterwork through to eaves roof void.





**Figure 2.** Photographs of exterior works (south side of chancel) – variety of roost features built into eaves roof void, including continuation of interior rafter bat boxes (K). Roost monitoring cameras installed (I). Large bat box fitted at south-east corner of nave (L).

### 3.3. Monitoring

Monitoring of both the bat population and impacts on the church was undertaken from 2019 to 2022 (4 years). See Appendix 2 (6.) for details of each year's monitoring (Bats in Churches Class Licence Annual Returns). A summary of the findings of the monitoring for the bat population (3.3.1) and church impacts (3.3.2) is provided below.

#### 3.3.1. Bat population

##### **Intensive monitoring post-blocking (Phase 1 and 2)**

Following the first Phase of works in April 2019, the church was closely monitored to assess the response of the bats. This involved a bat surveyor being positioned inside the church, equipped with an infrared camera and bat detector, to monitor bat behaviour and activity for several nights following completion of the works. Additional surveyors were positioned on the outside of the building, as needed. The monitoring established that the bats could continue to access the church interior via the two-way access points, as intended for the first season. The one-way excluders were also successfully used by bats to exit the building.

The roost monitoring cameras were also used to observe bat behaviour and use of the artificial roost features constructed in the south chancel eaves roof void/rafter bat boxes (Figure 3 R.). The bats began to explore the new roost features soon after installation.

Prior to the second Phase of works in May 2020, 12 adult female Natterer's bats were trapped at the church (using a 'triple high' net positioned in front of the bats' main exit area along the south chancel eaves, see Figure 3 M.) and fitted with radio transmitters (Biotrack PicoPip Ag317 0.38g). This enabled monitoring of roost locations of the colony immediately following blocking of the two two-way access points on the south side of the chancel, post-emergence. Bat roost locations were recorded daily until the tags detached or failed (approx. 10 days). During this period bats continued to roost inside the church at various locations (e.g. Figure 3 O.) as well as in trees in the village (e.g. Figure 3 Q.). As for the first Phase of works, surveyors also monitored the church inside and outside for several nights post-blocking to assess how bats were responding and ensure none were trapped inside the building.

##### **Colony monitoring years 1-4**

There has been a trend over the last c. 10 years of Natterer's bat colonies declining across many sites in Norfolk and therefore numbers should be considered in that context/against the background of declining numbers. The reasons for these declines are currently unknown, but are likely to relate to habitat changes and prey availability.

Natterer's bat maximum counts:

- 2018 – 66 (3 counts) – pre-works
- 2019 – 55 (3 counts) – post-Phase 1 works
- 2020 – 49 (3 counts) – post-Phase 2 works
- 2021 – high levels of bat activity, incomplete count (2 counts)
- 2022 – high levels of bat activity, incomplete count (2 counts)

Other species recorded in low numbers pre-works have continued to use the church: common pipistrelles, soprano pipistrelles and serotine (all have also been recorded on the south chancel eaves void roost monitoring cameras).

In 2021 and 2022, high levels of bat activity were recorded at the church (Natterer's bat maternity colony still present), but it was not possible to obtain accurate counts as the bats were using a variety of new/different access points at the church, some of which were very convoluted and difficult to determine how the exterior exit point was reached/exactly where the interior exit point was located. A physical inspection of the south chancel eaves roof void was carried out (small section opened-up from the outside) in January 2021 to try to determine how bats were passing from the void to exit into the church at the apex of the chancel roof on the inside (over the top of the boards). There were no clues visible as to the route taken from the void but additional blocking was carried out as a precaution, however Natterer's bats continue to access the church at this location.

In 2022 it was apparent that several further access points were being used: the east end of the north side of the chancel (see Figure 4 S) and also via a very small missing piece of glass in the feature at the top of the second window from the east in the north aisle (predominantly pipistrelles, see Figure 4 T). Repair of the missing glass is currently being considered. This should be preceded by fitting the gap with a one-way excluder in either spring or autumn (for at least one week of sunset temperatures suitable for bat activity), avoiding the main maternity period of mid-May to end of August. This will help to ensure that bats for which this may be their only known access point do not become trapped inside the church when the glass is replaced. Unfortunately, at the current time blocking of the other new access routes (used by the Natterer's bats) does not seem feasible.

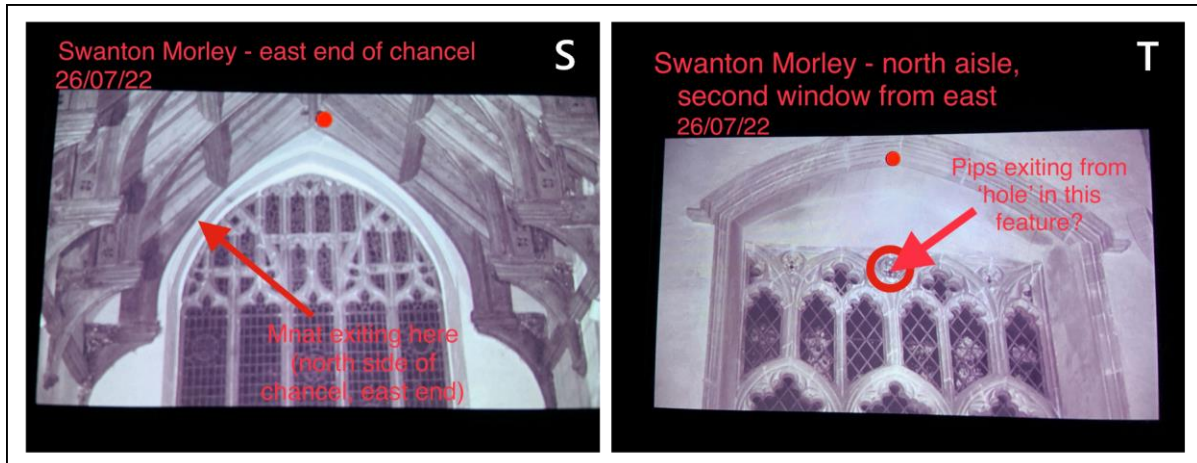
The roost monitoring cameras encouragingly show use of the built-in bat roost features in the south chancel eaves, by both Natterer's bats and pipistrelles (the latter mostly using the rafter bat box at the eastern end of the south chancel). However a significant number of bats are continuing to roost inside the church.

Ecological functionality of the church has been maintained.

See Appendix 2 (6.) for details of bat monitoring surveys.



**Figure 3.** Monitoring of bats post-Phase 2 blocking with one-way excluders (N), trapping Natterer's bats for radio-tagging (M), radio-tracking inside the church (P), example (from 9<sup>th</sup> May 2020) of roost locations of radio-tagged bats inside (O) and outside (Q) the church and roost monitoring cameras (R).



**Figure 4.** Additional bat access points identified during monitoring surveys in 2022 (photos of infrared camera screen annotated during surveys).

### 3.3.2. Church impacts

The bat roost features built into the south chancel eaves roof void and rafter bat boxes have succeeded in providing alternative roosting opportunities for the bats, with use confirmed by the roost monitoring cameras for all species known to use the church (and additionally brown long-eared bats). However a significant number of bats continue to roost inside the church and therefore currently, whilst bat impacts have been somewhat reduced, impacts do persist. This is because attempts to prevent the bats from accessing the church interior have proved very challenging, with a number of new and complex access points arising (which are likely to be very difficult to block). However, it can take many years for bats to fully adopt artificial roost features and it is hoped that over time bat use of the artificial roosts will increase and impacts inside this large and complex church will decrease.

See Appendix 2 (6.) for details of monitoring of church impacts.

## 4. Conclusions

Measures to reduce the impact of bats on All Saints' Church, Swanton Morley, whilst protecting the church's bat population, have been implemented and the outcomes, for the church and the bats, carefully monitored.

The Management Plan, informed by detailed surveys of the church and its bats, has been fully implemented. This is a very large and complex church with challenging bat use of the building. The outcomes of the monitoring show that whilst there are encouraging signs of use of the artificial roost features by all bat species recorded at the church, it has not been possible to completely block their access to the church interior and currently a significant number continue to roost inside the church. New, complex access points have arisen (not recorded prior to blocking) and for which blocking is unlikely to be feasible (e.g. chancel roof apex (interior) and east end of north side of chancel). The ecological functionality of the site has been maintained, with bat numbers and roost types as expected in relation to the situation pre-works (albeit in the context of county-wide declining Natterer's bat numbers). As bats continue to access the church interior, impacts on the church persist. However, there has been some reduction in the level of impact (with fewer bats roosting inside the church) and it is hoped that over time more of the bats may join those roosting in the artificial roosts in the south chancel eaves void (uptake can take many years) thereby further reducing impacts in future. Further monitoring is recommended and options for additional blocking measures should be considered.

## 5. Appendix 1 – Bats in Churches Class Licence Site Registration

**The Conservation of Habitats and Species Regulations 2017  
The Wildlife and Countryside Act 1981 (as amended)**

### Site Registration Form - WML-CL32

Bats in Churches Class Licence site registration form  
Please note - Applications to register a site under WML-CL32 must be submitted to [BatsinChurchesCL@naturalengland.org.uk](mailto:BatsinChurchesCL@naturalengland.org.uk) mailbox.



The information provided within this document will be used to assess the site registration application against the three legislative tests to determine whether Natural England is satisfied that it can authorise use of the class licence. Please ensure you provide all the information requested.

Additional supporting information is requested as part of each site registration, e.g. plan and photographs. Please see Section I at the end of this document to ensure all additional information has been included.

Please ensure that all records are kept for at least 12 months following the completion of the registration period.

#### Section A Personal and Site details

1. Name of Primary Registered Consultant:

Charlotte Packman

2. Registered Consultant's unique ID reference:

B32RC001

3. If necessary a Secondary Registered Consultant may be appointed. If appropriate please complete 3(i), (ii) and (iii). Please state N/A if not required.

a. Name of Secondary Registered Consultant:

b. Secondary registered Consultant's unique ID reference:

c. Email address of Secondary Registered Consultant:

All Saints' Church

4. Name of place of worship:

5. Parish:

6. Address of place of worship:

7. Grid reference (OS 6 figure):

The licensee is a legal representative of the place of worship (Churchwarden, PCC member or similar) who has authority to commit to the delivery of the management measures in this site registration. The licensee is the person who has instructed the Registered Consultant to carry out licensed activities.

8. Name of proposed licensee:

9. Address and postcode of proposed licensee:

10. Email address:

11. Position held:

12. Does the proposed licensee have legal responsibility for the place of worship and authority to commit to the delivery of the management measures in this site registration?

Yes  No

13. Confirm that to your knowledge, the site being applied for is not subject to any recent, concurrent, pending or future bat mitigation licence(s)

Yes, I confirm  No



If no, please provide details:

14. Name of architect:

Richard Waite

15. Email address of architect:

34 Bridge Street, Kings Lynn, PE30 5AB.

## Section B Summary of issues and actions

16. Please *summarise* the issues/problems being experienced at this place of worship and briefly describe the actions you are proposing to take and the time periods involved. Include a brief explanation of why you consider licensed activities are required.

<b>Summary of issue/problem</b>
Maternity colony of Natterer's bats roosting inside the church - droppings and urine have caused long-term damage to the building, including bleaching of pews, floor tiles, plaques, organ pipes. Droppings/urine staining on walls. Substantial cleaning burden May-Sept with large quantities of droppings/urine to be cleaned up. Potential/perceived health risk - especially in children's area.
<b>Briefly describe what actions are proposed to resolve the issue/problem</b>
Contain the Natterer's bat maternity roost into three potential areas: (1) 3 bespoke 'rafter boxes', built into the south chancel roof, (2) the south chancel eaves void (with roost enhancements) and (3) an external bat box situated at the east end of the south nave clerestory (close to the existing access points). New roost features would be installed in the first phase, with partial restriction of entry/exit points from the south chancel eaves void into the interior. In the second phase (the following year), the remaining access points into the church interior would be blocked. The intention would be to prevent the Natterer's bat maternity colony from roosting inside the church interior - and encourage the colony to roost in three areas described above. Complete exclusion of all bats from the church interior is not sought and is unlikely (as alternative minor access points would remain). The church is used as a day roost by small numbers of common pipistrelles. Individual serotines also roost externally, in the soffit on the west side of the (south) porch.
<b>Briefly describe why a licence is required</b>
A licence is required as access to roosts would be obstructed and a partial exclusion (of the Natterer's bat maternity colony, from the church interior, only) attempted. The aim is to retain the Natterer's bat maternity colony at the church (in the roof/eaves area), but prevent access to the interior.

17. Are licensed activities required for:

- Preventing serious damage to property (including to the contents of buildings or structures),

Yes     No

- Preserving public health or public safety

 Yes  No

- Imperative reasons of overriding public interest?

 Yes  No

18. Is the building or structure a registered place of worship\* or place of worship belonging to the Church of England?

\* In order to use the Class Licence places of worship must be registered under the Places of Worship Registration Act 1855, or belong to the Church of England (which is exempt from the Act).

 Yes  No

If 'No', you will need to apply for an individual licence.

### Section C Description of church or other place of worship

19. (a) Is it a listed building?

 Yes  No

(b) If 'yes' is it:

 Grade 1  Grade 2\*  Grade 2

20. *Approximate* age or estimated year built:

Completed 1360s

21. Is it in a rural location?

 Yes  No

22. Description of use:

Describe how the place of worship is *typically* used on a weekly, monthly and annual basis and for what activities. Please include worship, weddings, funerals and wider community uses.

**Weekly events** Service every Sunday (Morning Prayer, Parish Communion or Family Service)

**Monthly events** Prayer meetings/weddings/funerals/events.

**Annual events** Services for religious festivals e.g. Christmas, Easter, harvest etc.

23. Features of interest:

Briefly describe any features of particular religious, cultural or heritage significance present in the building. If known, please also provide information about why these

features are considered valuable and any supporting evidence e.g. visitor numbers, media articles etc. available.

Extracts from the Statement of Significance for All Saints' Church Swanton Morley:  
All Saints Swanton Morley is a substantial medieval church, most probably built by a nationally important master mason developing the Perpendicular Gothic style of architecture in the latter fourteenth century. It is patently of high archaeological, architectural and historical significance and so listed as Grade I. Surprisingly it has few surviving medieval features or memorials, which makes the font and brass inscriptions especially valuable and of high significance. The walls seem to have ancient plaster and may well hide substantial wall paintings and texts. Remaining medieval fittings:

- The c.1400 octagonal stone font
- Two c.1902 desks in the chancel incorporating the heads of screen panels (possibly from the rood screen that still existed in 1878) and other medieval pieces have probably been reused in the stalls e.g. the gilded lions
- The c.1400 traceried south door is much restored. Both the west and north doors are twentieth century, but the small north chancel vestry and the tower doorways are medieval.

Noteworthy post-medieval fittings:

- The nave benches are remarkable survivors from the seventeenth century, probably post-1660 Restoration work.
- The Queen Anne Royal Arms on horizontal painted boards are dated 1711.

There are also a number of brass inscriptions and ledgers and a wall memorial.

#### 24. Building condition

Please consult a report of the condition of the place of worship (e.g. quinquennial inspection report if Church of England) and identify when and where upcoming works are likely to take place.

Have you consulted the latest quinquennial inspection report?

Yes  No

#### 25. Scaled and labelled plan of the place of worship

A scaled plan of the place of worship is required to show:

- the location of features of interest,
- survey results e.g. main bat entry/exit points (internally and externally), location of roosts and;
- the impact from bats e.g. areas where droppings and urine are distributed with high, medium, low impact.

26. Has a scaled and labelled plan of the place of worship with the above information included been submitted with this site registration document? (See checklist at Section I).

Yes  No

#### 27. Photographs

Please provide exterior elevation photographs and photographs of the interior of the place of worship to provide a sense of what the building looks like, any features of interest and any typical damage or impact caused by the bats present. Please provide no more than four exterior elevation photographs and no more than six photographs of the interior and keep individual email sizes below 5mb. Multiple emails may be submitted if necessary.

28. Have photographs been submitted with this document? (See checklist at Section I).

Yes  No

## Section D Bat use and evidence

### Survey information

29. Does your site registration affect a regionally or nationally important population of bats? (If yes, further information may be required in order to complete the assessment.)

Yes  No

30. (a) Number of emergence/re-entry/activity surveys undertaken in the last two years:

6

(b) Please provide the date and type of bat survey undertaken in the last two years and summarise relevant details about these surveys:

Date	Type of survey	Details e.g. area of focus, general survey etc.
19/07/18	Dawn re-entry	Focus on known/established roosts/access areas
11/06/18	Dusk emergence	Focus on known/established roosts/access areas
01/08/17	Dusk emergence	Focus on known/established roosts/access areas
12/07/17	Dusk emergence	Focus on known/established roosts/access areas
23/06/17	Dawn re-entry	Whole church
08/06/17	Dusk emergence	Whole church
08/06/17	Visual inspection	Whole church, interior & exterior

(If more than 10 surveys were completed, please provide details separately and submit electronically with the application form)

31. (a) Number of surveys undertaken that are older than two years old (including Voluntary Bat Roost Visitor visits and National Bat Monitoring Programme surveys):

Many

(b) Please provide brief details:

Date	Type of survey	Details (if relevant)
2014	Visual inspections and bat activity surveys	Study church under the 'Management of Bats in Churches - a Pilot' University of Bristol Research Project (Historic England-funded).
2012-2013	Visual inspections and bat activity surveys	Study church under the 'Improving mitigation success where bats occupy houses and historic buildings, particularly churches' University of Bristol Research Project (Defra-funded).


(If more than 10 surveys were completed, please provide details separately and submit electronically with the application form.)

32. Does the survey effort undertaken at this place of worship comply with the survey standards listed within Annex B of WML-CL32?

Yes    No

If 'no' explain why.

**Results**

33. The number of bat species recorded using the place of worship in the last two years:

3

For each species, please provide the following information. If more bat species were identified please provide details separately and submit electronically with the application form. For each species, please ensure you have included roost locations and entry/exit points on a plan of the place of worship.

Bat species 1	Peak count	Maternity roost present?
Natterer's bat	66 (2018)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Notes</b> e.g. type of roost, ecological function, location of roosts and nursery clusters, entry exit locations.		
Maternity roost. Roost clusters located at multiple locations throughout the south aisle (gaps between walls and rafters), west and east ends of the nave roof (above central ridge beam and in gaps between walls and rafters). Exit - via gaps in the plasterwork allowing access into the south chancel eaves void - from there they pass through the eaves void to the outside via gaps at the eaves (between missing flints and rafters). Very minor exit also via north chancel eaves. Entry - the reverse of the above, except from the south chancel eaves void most gain access into the church interior not through the gaps in the plasterwork, but by travelling up along a rafter to re-enter between ceiling boards (half-way up the roof interior).		
<b>Please provide an assessment of the importance of the place of worship for this bat species</b> (e.g. locally/regionally important roost)		
Norfolk has a concentration of nationally (and some internationally e.g. Holme Hale Church where numbers can reach 280) important Natterer's bat roosts in churches. The roost at Swanton Morley (60-70 in 2018) is not exceptional in the Norfolk context, but may be considered regionally important (although numbers appear to have declined in recent years).		
Bat species 2	Peak count	Maternity roost present?

Common pipistrelle	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Notes</b> e.g. type of roost, ecological function, location of roosts and nursery clusters, entry exit locations		
Day roost within roof structure. Exit via gaps in plasterwork into south and north chancel eaves void, passing through the void to the outside via gaps between missing flints and rafters (as for Natterer's bats).		
<b>Please provide an assessment of the importance of the place of worship for this bat species</b> (e.g. locally/regionally important roost)		
Not significant.		
<b>Bat species 3</b>	<b>Peak count</b>	<b>Maternity roost present?</b>
Serotine	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Notes</b> e.g. type of roost, ecological function, location of roosts and nursery clusters, entry exit locations		
Day roost - NOT inside church but in porch roof. Access via gap between soffit and wall at eaves level (west side of porch).		
<b>Please provide an assessment of the importance of the place of worship for this bat species</b> (e.g. locally/regionally important roost)		
Not significant. Serotines are uncommon in the region, but some maternity colonies are known and small numbers of individuals are quite often observed at churches.		
<b>Bat species 4</b>	<b>Peak count</b>	<b>Maternity roost present?</b>
		<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Notes</b> e.g. type of roost, ecological functionality, location of roosts and nursery clusters, entry exit locations		
<b>Please provide an assessment of the importance of the place of worship for this bat species</b> (e.g. locally/regionally important roost)		

34. Describe the ecological function of the Registered Site for the local bat population(s)?

The ecological function of the roost is to maintain the pre-works status (i.e. numbers, species and roost type), it is also the physical and environmental conditions provided by the Registered Site which enable the status of the roost to be maintained at pre-works levels.

For example, if a maternity roost is present the ecological function of the Registered Site is the provision of conditions for and access to a maternity roost for this same species with use by acceptable numbers. This assessment should consider all relevant contributing factors such as species, location and natural change etc.

Within this assessment please include the acceptable colony size and the acceptable sub-optimal outcomes which still ensure the FCS test can be satisfied i.e. the actions will not be detrimental to maintenance of the local bat population(s) at FCS in their natural range.

The ecological function of the church is as a Natterer's bat maternity roost (and day roost for individual common pipistrelles and serotines).

Numbers of Natterer's bats at the church vary considerably through May-September. In 2012/13 the Natterer's roost was reported as 80-100 bats. In 2014 we conducted regular counts at the church between June and September: numbers ranged between 50-110 (peaking in the latter half of July). Counts in 2017 (June, July & August) ranged between 48-78 and in 2018 (June & July) 62 & 66. The data for the church suggest that numbers may have declined in recent years. Therefore determining what would be considered an 'acceptable colony size', post-intervention, is difficult as clearly there are some (unknown) factors influencing the colony size at present ('natural change'). Given the potential downward trend and range between 48-78 over the last two seasons, allowing for inter-annual variation, we would expect a minimum 'acceptable' colony size of 40 Natterer's bats (although note that between 2014 and 2018, the peak count has almost halved in only 4 years, from 110 to 66).

The key consideration is that the FCS of the local population is maintained within its natural range - this does not necessarily require the colony to be retained at the church site - it could be located at another suitable site, within the colony's homerange (known from previous Defra-funded research). Therefore providing numbers and indicators of FCS were adequate (with monitoring over 5 years), if the church colony relocated to an alternative roost site (confirmed by radio-tracking individuals tagged at the church), this could be an acceptable outcome (although not the intended outcome). See 45.

### Section E Impacts caused by bat presence

35. Description of how bat presence is having a physical and social impact on the place of worship, e.g. physical damage to monuments, fixtures and fittings, disruption to use of the building and physical and financial burdens. This information will also be used to assess impacts caused by bats in future years when licence returns are received.

How long have bats been having an impact?	Less than 3 years <input type="checkbox"/>		
	Between 3 and 5 years <input type="checkbox"/>		
	More than 5 years <input checked="" type="checkbox"/>		
Do bats cause damage to:  (if yes, please rate on scale of 1-4 where 1= tolerable and 4 = severe)	<ul style="list-style-type: none"> <li>the fabric of the church</li> <li>monuments</li> <li>fixtures and fittings</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    Scale	<input type="text" value="4"/> <input type="text" value="3"/> <input type="text" value="4"/> <input type="text"/>

Please provide details of damage, if any:	Bleaching on pews, droppings and staining on walls, bleaching & staining of floors, burials and brasses.							
Do bats disrupt or stop worship taking place at the church? (if yes, <b>please rate on scale of 1-4 where 1 = tolerable and 4 = severe</b> )	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   Scale	2						
If yes, please provide details:	Bats do not stop worship taking place, but do disrupt it, with major clean-ups needed very regularly and immediately prior to services (during May-September). Limits use for children's activities and events where food/drink could be served.							
Do bats disrupt or stop the church being used for: (if yes, <b>please rate on scale of 1-4 where 1 = tolerable and 4 = severe</b> )	<ul style="list-style-type: none"> <li>• Weddings</li> <li>• Funerals</li> <li>• community activities</li> </ul>	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;"><input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No   Scale</td> <td style="width: 50%; text-align: center;">2</td> </tr> <tr> <td><input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No   Scale</td> <td style="text-align: center;">2</td> </tr> <tr> <td><input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No   Scale</td> <td style="text-align: center;">3</td> </tr> </table>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   Scale	2	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   Scale	2	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   Scale	3
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   Scale	2							
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   Scale	2							
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No   Scale	3							
If yes, please provide details:	Does not stop use but does disrupt it, for reasons stated above.							

36. How often is cleaning required as a direct result of bat urine and faeces? Please provide information about how many people are involved and an estimate of any associated costs:

Twice a week (2 volunteers).

37. If bat presence causes any other impacts, please describe these below.

38. Before applying to register a site under the Bats in Churches Class Licence you must have demonstrated that practicable lawful measures have been taken to avoid or mitigate problems caused by bats in accordance with relevant published guidance and that these measures have failed to satisfactorily resolve the problem.



Please describe any measures already taken to resolve or reduce the severity of the problem and why these were unsuccessful.

Coverings (floor and pews), cleaning. One of the University of Bristol research churches – measures trialled included lighting and acoustic deterrents and provision of bat boxes (inside and outside the church). None of these have proved satisfactory or brought about a meaningful reduction in impact on the church. Given the size of the church, the complexity of roost use (many roost locations used, throughout the church) and the level of impact, taking a more invasive approach would seem justified as all other reasonable options have been exhausted.

### 39. Consideration of cumulative impacts

In order to consider cumulative impacts, please undertake a search of licences issued for bats within 10km of this site. Please confirm that this has been undertaken.

Yes  No

### 40. Protected Sites

Will any part of the proposed activity fall in and/or adjacent to a Designated Site?

Yes  No

If yes, name of designated site:

>300m from River Wensum SSSI & SAC.

Have you consulted with Natural England for advice on the implications of the application on the Designated Site?

Yes  No

Please give either the outcome of your consultations or the reason why you have not consulted us. Please provide any relevant correspondence and the name of the local Natural England adviser or reserve manager consulted.

Not relevant to SSSI/SAC site/designation.

Please note that if the proposals require SSSI consent then before we can approve this registration we will need to seek the advice of the team responsible for the protected site to make sure that the proposals are compatible with the protected status of the site.

## Section F Management Measures

### 41. Desired outcomes

In relation to the bat local population(s) present, please describe the outcomes you will set out to achieve through the Bats in Churches Class Licence to reduce the negative impacts being caused. The outcomes described must have been agreed with representatives of the place of worship.

Please explain how the proposal will affect each bat species and how the impacts on each species will be addressed.

Natterer's bats: encourage to use the south chancel roof rafter boxes, south chancel eaves void (with enhanced roosting opportunities) and south clerestory box for roosting, whilst preventing access to the church interior. This would aim to retain the maternity colony at the church but remove interior impacts from this species. In addition to the enhancements, the bats would still have access to other 'exterior' parts of the church, the tower, the porch and the north chancel eaves void. Consequently, a wide range of potential roost niches and conditions would be either retained or created, in the hope of keeping the colony at the church and providing suitable conditions for raising pups. Prior to final blocking work (to prevent access to the church interior), bats will be radio-tagged so that their roost locations can be tracked and suitability/acceptability of outcomes assessed.

Common pipistrelle: Likely to still access the church interior in small numbers (minimal impact on the church), as previously, although may be somewhat deterred from utilising the interior by the measures imposed for Natterer's bats - but would also have access to the same roosting opportunities retained/provided (as described above).

Serotine: Should be unaffected by the proposal - access and roost areas will remain unchanged (porch).

#### 42. How will the desired outcomes be achieved?

Please provide details of how the outcomes you listed above will be achieved. Include the preferred locations of bat roosts and the target levels of impacts caused by bats. Any licensable works and management measures identified must be capable of satisfying the FCS test.

Please include how you will use reasonable endeavours to make sure the ecological function of the relevant roosts specified within Question 34 are maintained throughout the Registration Period (as per Condition 26 within licence WML-CL32)?

Phase 1 (April 2019) - install rafter boxes in the south chancel roof at 3 separate locations - each will receive different amounts of solar heating and therefore provide a range of conditions. The boxes will extend down into the eaves void. One of the boxes will be positioned close to the Natterer's main exterior entry point. The south chancel eaves void will also receive roost enhancements - bat boxes/boards separated by batons to create crevices. A crevice bat box will be added to the south clerestory wall (nave wall above the south aisle - east end, adjacent to south chancel). Internally, gaps in the plasterwork which allow bats to pass between the church interior and the eaves void will be partially blocked (temporarily - with sponges), leaving only 2-3 access points on the south side (and complete blocking on the little-used north side). Several of the access points will be fitted with 'one-way valves', which would allow bats within the church to pass out into the eaves void but would prevent re-entry to the church interior at those locations. This set-up would be maintained for a year to allow bats time to become used to and explore/discover the new roost features, whilst still having access to the church interior.

Phase 2 (early May 2020) - c.10 adult female Natterer's bats would be trapped and radio-tagged for monitoring purposes. Internally, the 2/3 remaining gaps in the plasterwork (into the south chancel eaves void) would be blocked, post-emergence. The existing one-way valves would allow any bats that may have remained inside the church (post-emergence period) to exit. The church interior would also be closely monitored in case any bats cannot find their way out (in which case the south door would be opened to allow them to exit).

The above measures should reduce bats inside the church to small numbers of individuals (non-maternity use) - consequently dropping and urine deposition (and the associated impacts) should become minimal (but will not be entirely removed). Complete 'sealing' of the church would be impractical/unrealistic. Minor bat usage of the interior would be tolerated by/manageable for the church community. Suitable roosting opportunities for the Natterer's bat maternity colony and day roosting pipistrelles will have been retained/created (and for serotines, unaffected), with reasonable endeavours to maintain ecological functionality. Blocking measures will be temporary and therefore are reversible, if necessary.

#### 43. Project plan

Please *summarise* the main licensed works, management measures (including mitigation and compensation), monitoring and site management/maintenance that will be undertaken in each full calendar year of the project and provide details about these actions. Provide sufficient detail about radio-tracking, use of ultrasonic deterrents, installation of bespoke roosting structures and any modification of bat access points.

For each action or milestone which may significantly affect bats, please state the latest date they will take place. Reports must be submitted annually and progress will be measured against these stated actions. Any significant changes which are not completed as stated will require approval from Natural England.

It is expected that the majority of licensed work will take place in years 1 and 2 with monitoring and site management/maintenance in successive years.

	Year	Details
1.	2019	April - installation of x3 rafter boxes in the south chancel roof, roost enhancement features added to the south chancel eaves void, bat box fixed to the south nave clerestory, blocking of most access points in the interior south (and north) chancel eaves area - restricted to 2/3 main access points. Monitoring - bat activity surveys April - August. BiCCL annual return.
2.	2020	Early May. Radio-tagging c.10 adult female Natterer's bats (capture by hand-net, harp-trap and/or elevated mist-net e.g. High Flier system). Subsequent blocking of remaining gaps in plasterwork which allow bat access into/out of church interior. Radio-tracking (up to 2 weeks post-tagging) to locate roosts at and/or beyond the church. Monitoring - bat activity surveys May - August. BiCCL annual return.
3.	2021	Monitoring bat activity surveys (dusk or dawn): x1 survey in the pre-maternity period (May/June), x1 survey in the post-maternity period (July/August). BiCCL annual return.
4.	2022	Monitoring bat activity surveys (dusk or dawn): x1 survey in the pre-maternity period (May/June), x1 survey in the post-maternity period (July/August). BiCCL annual return.
5.	2023	Monitoring needed but currently no funding.
6.	2024	Monitoring needed but currently no funding.

44. Please provide plans showing the location of any licensed works, management measures (including mitigation and compensation) and any scaled drawings of bespoke and standard bat roost features. The plans should include details about all proposed licensed works and management measures, for example, which access

points are going to be blocked or modified; where new access points will be included; where bat boxes are to be located (whether standard or bespoke), etc. (see checklist at Section I).

Have plans and diagrams been provided?

Yes  No

45. Risk, impact (on bats) and mitigation

- Please provide a full consideration of the risks to bats associated with undertaking the proposed licensed works and the likelihood of these occurring (high, medium, low), e.g. bats may vacate the building for an entire summer after licensed works have been undertaken.
- For each risk identified, please describe the impact of this outcome on the bat populations.
- For each stated impact, please describe how the effects would be mitigated to ensure that the FCS test can be satisfied.

<b>(i) Describe the risk including the bat species it relates to</b>
Natterer's bat maternity colony leaves the church.
<b>(ii) Probability of occurrence (i.e., low/medium/high)</b>
Short-term (Year 1) - high, medium/long-term (Years 2-5) - medium.
<b>(iii) Describe the impact on individual bats</b>
Providing suitable alternative roosts are present nearby/known to the colony, impacts on individuals are likely to be low and unlikely to affect adult survival.
<b>(iv) Describe the impact to the population/roost found in the place of worship</b>
If a suitable alternative colony roost is established, beyond the church, then females may continue to successfully raise pups and survival and productivity may not be affected. However, if no such suitable colony roost is found/established, the colony may fragment or may adopt a new location where conditions are suboptimal such that productivity/pup survival are impacted. This can be assessed through monitoring counts, provided the alternative roost(s) can be located through the initial radio-tracking.
<b>(v) Describe how impacts will be mitigated</b>
Radio-tracking will allow alternative roosts (beyond the church) used in the short-term (first c.10 days) to be located. Monitoring of alternative roosts can establish numbers and give an indication of productivity. If the colony is considered to be at risk, blocking measures (preventing access into the church interior) can be reversed.
<b>(i) Describe the risk including the bat species it relates to</b>
Blocking work traps bats inside the church.
<b>(ii) Probability of occurrence (i.e., low/medium/high)</b>
Medium/high.
<b>(iii) Describe the impact on individual bats</b>
Could result in death of small numbers of individuals, if mitigation measures are not taken.
<b>(iv) Describe the impact to the population/roost found in the place of worship</b>
Low - likely to be small numbers of individuals only.
<b>(v) Describe how impacts will be mitigated</b>
One-way valves will be fixed to established exit points (from the church interior into the south eaves void) - to allow any bats remaining inside the church, post-blocking, to escape. In addition, the church interior will be carefully monitored and should any bats appear to be 'trapped' inside, doors would be opened to allow them to escape (monitored with an infrared camera to confirm when

they have successfully exited the building). This approach was used, successfully, at Braunston Church.
<b>(i) Describe the risk including the bat species it relates to</b>
Natterer's bat maternity colony uses the retained/additional roost features at the church, but conditions are suboptimal.
<b>(ii) Probability of occurrence (i.e., low/medium/high)</b>
Medium/low
<b>(iii) Describe the impact on individual bats</b>
Unlikely to impact adult survival.
<b>(iv) Describe the impact to the population/roost found in the place of worship</b>
Could negatively impact productivity/pup survival.
<b>(v) Describe how impacts will be mitigated</b>
Monitoring should reveal if numbers are stable in the medium/long-term. Overall, numbers at the church appear to have been declining, so any changes in numbers that could be caused by the implemented works will need to be assessed in light of this overall trend. Significant changes would be evident in the short-term. More subtle changes would only become evident in the medium-long-term and separating the influence of the implemented works from other, unrelated, factors could prove challenging. Blocking of the church interior can be reversed and/or modifications to roost enhancements made to improve conditions.
<b>(i) Describe the risk including the bat species it relates to</b>
Natterer's bat maternity colony continues to access the church interior and roost in the 'usual' locations.
<b>(ii) Probability of occurrence (i.e., low/medium/high)</b>
Medium
<b>(iii) Describe the impact on individual bats</b>
Low - access may be impeded/a more complex/'difficult' route taken, but unlikely to have any significant impact on individuals.
<b>(iv) Describe the impact to the population/roost found in the place of worship</b>
As above. Could result in minor impacts on productivity if ease of access to pups for regular feeding etc is impeded.
<b>(v) Describe how impacts will be mitigated</b>
If the alternative access route was found to be suboptimal/risky, the temporary blocking could be removed.

(If necessary please provide any further details separately and submit electronically with the application form)

### Monitoring and reporting

46. I confirm I have read and understand the annual reporting requirements and will ensure these are complied with:

 Yes, I confirm

47. Please state why monitoring is required and provide details of the monitoring that will be undertaken (note that monitoring here includes both bat population monitoring and monitoring of impacts caused by bat presence):

Monitoring is required to enable FCS and any impacts on the bat colony to be assessed as well as assessing whether impacts on the church have been successfully reduced - short and longer-term.

Short-term, the colony's location will be tracked from radio-tagged individuals - allowing pinpointing of exact roost locations/features at the church and/or location of nearby alternative roosts (beyond the church).

The maternity colony will be monitored through bat activity surveys (counts), wherever the maternity colony is located (may not be at the church), providing the colony can be located (short-term, through radio-tracking) and access permission is granted.

The south chancel rafter boxes will also be monitored using tiny 'no-glow' infrared cameras. Activity surveys should continue until at least 2024 (but currently funding is provided only up to 2022). The church will be regularly inspected to assess dropping deposition and impacts. A static detector will be left overnight inside the church to determine bat activity levels inside the building. The monitoring schedule is set out under 43. Project Plan.

**Evaluating the success of actions taken**

48. Please describe any methods in addition to the annual monitoring report that will be used to evaluate the success of the actions taken in successive years, e.g. opinion surveys, dropping deposition analysis etc.

Dropping deposition and bat impacts will be assessed annually. The opinion survey, used in the Light Touch Survey Form to assess the church community's opinion of bat impacts, would also be repeated.

**Section G Consents and Permissions**

49. Do the proposed licensed works and management measures require any other consents or permissions to allow the activities to commence (e.g. Faculty consent)?

Yes     No

If 'yes', please give details.

A Faculty.

50. If so, please confirm you have obtained the necessary consent(s) or other permission(s). (Please note unless exceptional circumstances apply no application to register a site may be made until the Licensee has obtained all necessary permission and consents for the licensed activities).

Yes     No      
N/A

a. Type of consent/permission:

b. Consent/permission reference number:

c. Period for which consent/permission is valid:

d. Authority name:

e. Authority address:

51. If Church of England: Has advice been sought from the Diocesan Advisory Committee (DAC)?  Yes  No

52. If 'yes', please provide details.

53. If all necessary consent(s) or other permission(s) have not been obtained prior to submitting this Site Registration Form please explain what the exceptional circumstances are and why it is necessary to apply to use the Bats in Churches Class Licence prior to obtaining these. (Please note, as per Condition 15 within the licence, no licensed activities may commence at the Registered Site until all outstanding permissions or consents (e.g. faculty permission) under condition 8 have been obtained in writing.)

54. Do the proposed licensed works and management measures require planning permission?  Yes  No

55. If 'yes', please give details including the name of the planning authority, whether you have obtained the consent, and, for all consents that have been granted, whether all conditions or Reserved Matters relating to wildlife species and habitat issues (which are intended to be and are capable of being discharged before licensable works begin) have been discharged.

### REGISTRATION PERIOD

**This is the total period of licensed works, monitoring and site management/maintenance activities. The site would be registered and the licence would need to be complied with for this period of time.**

56. a. Month and year when site is to be registered:

b. Month and year when monitoring and site management/maintenance is complete and site is to be deregistered:

### Section H Declarations

#### REGISTERED CONSULTANT DECLARATION

**Please ensure that all records are kept for at least 12 months following the completion of the registration period.**

**I declare, as the Primary Registered Consultant for this site registration, that:**

57. I have personally completed this site registration form.  Yes, I confirm

58. I accept responsibility for the information provided as this will contribute to Natural England's determination of the three statutory licensing tests.  Yes, I confirm



59. I have been granted permission in writing by my client, the authorised legal representative of the place of worship (Churchwarden, PCC member or similar), to deliver the management measures and monitoring in this site registration form for the registration period.

Yes, I confirm

60. I have explained the requirements of this Class Licence to my client and they have accepted its terms and conditions.

Yes, I confirm

61. The management measures and monitoring are in line with the requirements and context of this Class Licence.

Yes, I confirm

62. All reasonable and practicable lawful measures have been taken to avoid or mitigate problems caused by bats in accordance with relevant published guidance and these measures have failed to satisfactorily resolve the problem.

Yes, I confirm

63. I agree to be bound by the terms and conditions of licence WML-CL32.

Yes, I confirm

64. In the event that monitoring reveals that the local bat population(s) have not responded as predicted to the licensed activities and risks to bats have increased, I will use reasonable endeavours to agree an appropriate amended site registration form and/or an adaptive management plan with my client to address those risks, and submit this to Natural England.

Yes, I confirm

65. I confirm that, as far as practicable, I will deliver the licensed activities, management measures (including mitigation and compensation), monitoring and site management/maintenance activities set out in the authorised site registration form and any amended site registration form and/or adaptive management plan, as agreed.

Yes, I confirm

#### **PROPOSED LICENSEE DECLARATION**

I declare, as the proposed licensee, that:

66. To the best of my belief and knowledge the information in this site registration form is accurate:

Yes, I confirm

67. I agree to be bound by the terms and conditions of licence WML-CL32:

Yes, I confirm

68. In the event that monitoring reveals that populations have not responded as predicted to the licensed activities and risks to bats have increased, I will use reasonable endeavours to agree an appropriate adaptive management plan to address those risks.

Yes, I confirm

69. I confirm that I will ensure that the management measures and monitoring set out in the authorised site registration form and any adaptive management plan will be provided as agreed.

Yes, I confirm

## Section I – Additional supporting information checklist

70. Please submit requested plans and photographs in one or two separate documents (individual emails should be under 5mb).

### Scaled and labelled plan of the place of worship

A scaled plan of the place of worship is required to show:

- the location of features of interest,
- survey results e.g. main bat entry/exit points (internally and externally), location of roosts and/or nursery sites and;
- the impact from bats e.g. areas where droppings and urine are distributed with high, medium, low impact.

Has a scaled and labelled plan of the place of worship with the above information included been submitted with this site registration document?

Yes  No

### Photographs

Please provide no more than four exterior elevation photographs and no more than six photographs of the interior.

Have photographs been included with this application?

Yes  No

### Plans/drawings

Plans and drawings are required to show the location of any licensed works, management measures (including mitigation and compensation) and any scaled drawings of bespoke and standard bat roost features. The plans should include details about all proposed licensed works and management measures e.g. new access points and/or bat boxes.

Have plans or drawings been submitted with this application?

Yes  No

## 6. Appendix 2 – monitoring details (Bats in Churches Class Licence Returns) 2019-2022

### 6.1 2019 season

#### Bats in Churches Class Licence WML-CL32 Report of action taken under licence

Wildlife Licensing, Natural England, Horizon House, Deanery Road, Bristol. BS1 5AH  
Email: [BatsinChurchesCL@naturalengland.org.uk](mailto:BatsinChurchesCL@naturalengland.org.uk)



The Primary Registered Consultant and Licensee must submit an annual report to Natural England to be received no later than 15 January in each year of site registration.

Separate forms must be completed for each registered site.

Guidance Notes: *Please read the following notes carefully before completing this form in block capitals or type. This form may be downloaded from the Huddle site for the Bats in Churches Class Licence, completed on screen, and emailed to us.*

- It is a condition of your licence to provide Natural England with a report detailing action taken under this licence. This report must be completed, even if no action is taken.
- Send the completed form to Natural England (address above) to arrive no later than 15 January in each year of the site registration period, to cover the previous calendar year (1 January to 31 December inclusive).
- Failure to provide a report is a breach of the licence conditions and may lead to future applications for licences being refused.

This report is used to provide summary information to Defra and the European Union on the number and type of licences issued and the actual work carried out under the licence. The data collected from licence reports might also be used for scientific monitoring and evaluation purposes. Any request for information in this report will be considered under the Environmental Information Regulations 2004 and the Freedom of Information Act 2000, as appropriate. If you have concerns about the information you are providing please contact us.

#### Section A Personal and Site details

1. Name of Registered Consultant:

Charlotte Packman

2. Registered Consultant's unique reference number:

B32RC001

3. Name of church:

4. County:

5. Site registration unique reference number:

6. Period covered by this report:

Section B Bat Population Monitoring

Summary of population monitoring results

7. Were population monitoring surveys undertaken for the reporting year?

Yes  No

If yes, please complete sections 8 and 9 below.

8. Population monitoring survey details for the reporting year

Date	Type of survey	Details e.g. area of focus, general survey etc.
25/04/19	Emergence	Chancel (area of access into/out of the church)
15/05/19	Emergence	Chancel (area of access into/out of the church)
24/07/19	Emergence	Chancel (area of access into/out of the church) and current roost location at west end of south aisle

9. Survey results and comparisons

Bat species	Peak count previous year *	Peak count this year	Maternity roost present?	Have bats responded as predicted to licensed activities and management measures?
Natterer's bat	66 (2018)	55 (2019)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**Notes:** please include type of roost present, ecological functionality, location of roosts and nursery clusters, description of entry exit locations. **Highlight and explain any significant differences to previous year results and any adverse or unintended impacts. If bats have not responded as predicted to licensed activities and management measures, please explain why and what measures will be taken.**

2019 count may not have captured the 'peak' when juveniles were flying (timing of this varies year to year so meaningful comparisons between annual counts are difficult). Numbers are considered to be within acceptable level of variance expected between years.

Bat species	Peak count previous year *	Peak count this year	Maternity roost present this reporting year?	Have bats responded as predicted to licensed activities and management measures?
Common pipistrelle	2 (2018)	11 (2019)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**Notes:** please include type of roost present, ecological functionality, location of roosts and nursery clusters, description of entry exit locations. **Highlight and explain any significant differences to previous year results and any adverse or unintended impacts. If bats have not responded as predicted to licensed activities and management measures, please explain why and what measures will be taken.**

Common pipistrelles are assumed to now be roosting in the south chancel eaves void (intended roosting area - enhanced in April 2019) - they were not observed exiting the interior at this location - but were observed emerging from the eaves on the outside here. Individual common pipistrelles were observed flying inside the building - but not equivalent to the numbers recorded exiting. Numbers were variable between surveys - unclear if this is a maternity roost or not (maternity roost not present previously - numbers here have increased since Phase 1 of management plan).

Bat species	Peak count previous year *	Peak count this year	Maternity roost present this reporting year?	Have bats responded as predicted to licensed activities and management measures?
Soprano pipistrelle	0	2	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

**Notes:** please include type of roost present, ecological functionality, location of roosts and nursery clusters, description of entry exit locations. **Highlight and explain any significant differences to previous year results and any adverse or unintended impacts. If bats have not responded as predicted to licensed activities and management measures, please explain why and what measures will be taken.**

Soprano pipistrelles are assumed to be roosting in the south chancel eaves void (intended roosting area - enhanced in April 2019) - they were not observed exiting the interior at this location - but were observed emerging from the eaves on the outside here. Individual soprano pipistrelles were also observed flying inside the building. Soprano pipistrelles were not previously recorded at the church.

Bat species	Peak count previous year *	Peak count this year	Maternity roost present this reporting year?	Have bats responded as predicted to licensed activities and management measures?
Serotine	2	1+	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**Notes:** please include type of roost present, ecological functionality, location of roosts and nursery clusters, description of entry exit locations. **Highlight and explain any significant differences to previous year results and any adverse or unintended impacts. If bats have not responded as predicted to licensed activities and management measures, please explain why and what measures will be taken.**

Individual serotine roost in a soffit/roof on the south side of the porch (exterior roost) - this area was not affected by the works and was not monitored. However, a serotine was recorded on the roost monitoring cameras in the south chancel eaves void and serotine droppings were found inside the church at the east end of the chancel (in September 2019) - so they are still present at the church.

\* If reporting on first year results, include peak count numbers from pre-treatment surveys.

Section C Summary of licensed action and work completed

10. Have licensed activities been undertaken at this registered site during the period covered by this report?

Yes  No

If no, please explain why:

11. Were all works conducted under this licence during the period specified above in line with the site registration form that was submitted for this place of worship?

Yes  No

If no, please explain why:

12. Please provide a general summary of all licensable activities, management measures, and monitoring and site management/maintenance undertaken during the reporting year.

Phase 1 of the management plan was implemented in April 2019 - this involved the installation of x3 rafter bat boxes in the south chancel roof, connected to the eaves void as well as enhancement of roosting niches within the void itself. An exterior bat box was also installed at the east of the nave - south clerestorey wall.

Roost cameras were installed to allow monitoring of bat activity within the eaves void. This was very revealing: bats were observed exploring the rafter bat boxes, pipistrelles appear to now be roosting within the eaves void and individual serotine and brown long-eared bat were also recorded on the roost cameras (bringing the total species recorded at the church to 5).

Important to note that this is a phased approach - so during this Phase 1 period access to the interior of the church was not blocked, allowing the bats time to become familiar with the new roost options. However access to/from the church interior was restricted to just two locations, in preparation for Phase 2 (due to commence May 2020). The restricted access involved confining two-way access between the eaves void and church interior to just two gaps (where plaster has fallen away, leaving access between laths - previously multiple gaps were used along the length of the south chancel) and at two further locations one-way excluders were fitted allowing bats to pass from the church interior into the eaves void (but not back through into the church) - in preparation for Phase 2 blocking to help prevent any bats from becoming trapped inside the church.

Monitoring consisted of activity surveys, regular visual inspections of the church interior and reviewing of roost camera footage (cameras inside the south chancel eaves).

13. Below not completed as only Phase 1 of works have been completed to date and these allow for bats to remain inside the church interior - it is not until Phase 2 has been completed that we can assess the below and would hope for a reduction in impact to have been achieved.

Section D Impacts caused by bat presence

13. Now that work has been undertaken to reduce the impact of bats, please fill in the table below by making a new assessment of the impacts that bat presence is currently having at the church. The information provided will be compared to the site registration document or previous licence returns to give an indication of success.

<p>Do bats cause damage to: (if yes, please rate on scale of 1-4 where 1= tolerable and 4 = severe)</p>	<ul style="list-style-type: none"> <li>• The fabric of the church</li> <li>• Monuments</li> <li>• Fixtures and fittings</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No    Scale: <input type="checkbox"/> Yes <input type="checkbox"/> No    Scale: <input type="checkbox"/> Yes <input type="checkbox"/> No    Scale:
<p>Please provide details of damage, if any:</p>		
<p>Do bats disrupt or stop worship taking place at the church? (if yes, please rate on scale of 1-4 where 1 = tolerable and 4 = severe)</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No    Scale:	
<p>If yes, please provide details:</p>		
<p>Do bats disrupt or stop the church being used for: (if yes, please rate on scale of 1-4 where 1 = tolerable and 4 = severe)</p>	<ul style="list-style-type: none"> <li>• Weddings</li> <li>• Funerals</li> <li>• Community activities</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No    Scale: <input type="checkbox"/> Yes <input type="checkbox"/> No    Scale: <input type="checkbox"/> Yes <input type="checkbox"/> No    Scale:
<p>If yes, please provide details:</p>		



Section E Management and progress towards meeting outcomes

14. Please describe the progress that has been made towards meeting the agreed outcomes as described in the site registration form:

So far the management has gone to plan for Phase 1 - the bats are still at the church but are utilising the modified access and exploring the new roost facilities (with pipistrelles now using the eaves void for roosting). Phase 2 will involve radio-tagging bats and then several days later blocking the two two-way access points into the church interior, at night post-emergence. Radio-tracking will allow Natterer's bat roost locations to be monitored in the early days following blocking (and the bats to be tracked to any roosts outside of the church, as it is likely that at least some will temporarily leave the building in these early stages). The church interior will be closely monitored during this early phase to ensure bats are not trapped inside the building (monitoring overnight with infrared cameras - doors can be opened if bats appear to be trapped inside - this approach worked successfully at Braunston Church post-blocking, when individual 'late emergers' needed to be let out of the building).

15. Given the results achieved this year, will you be undertaking work differently next year than described in the site registration form or in previous licence reports?

Yes  No

16. If yes, provide details about any changes in approach:

A very minor modification to the original plan is that the two two-way access points will also be fitted with one-way excluders, rather than just blocked (having come up with a way to fit the excluders from the inside of the church into the eaves void).

Please note that:

If details within an authorised site registration form change, which could affect Natural England's licensing assessment, the Licensee and Primary Registered Consultant must apply promptly to Natural England with an amended site registration form to allow reassessment.

Subject to natural change, in the unexpected event that monitoring reveals that populations have not responded as predicted to the licensed activities and risks to bats have increased, the Licensee and Primary Registered Consultant must promptly submit an amended site registration form and/or an adaptive management plan to Natural England of further measures and monitoring needed to address these risks. No licensed activities may continue until written authorisation has been received from Natural England.

PRIMARY REGISTERED CONSULTANT DECLARATION

I declare, as the Primary Registered Consultant for this registered site, that:

17. I have personally completed this licence return form.

Yes, I confirm

18. I accept responsibility for the information provided.

Yes, I confirm

#### LICENSEE DECLARATION

I declare, as the Licensee, that:

19. To the best of my belief and knowledge the information in this licence return form is accurate.

Yes, I confirm

## 6.2 2020 season

# Bats in Churches Class Licence WML-CL32

## Report of action taken under licence

Wildlife Licensing, Natural England, Horizon House, Deanery Road, Bristol. BS1 5AH  
Email: [BatsinChurchesCL@naturalengland.org.uk](mailto:BatsinChurchesCL@naturalengland.org.uk)



The Primary Registered Consultant and Licensee must submit an annual report to Natural England to be received no later than 15 January in each year of site registration.

Separate forms must be completed for each registered site.

Guidance Notes: *Please read the following notes carefully before completing this form in block capitals or type. This form may be downloaded from the Huddle site for the Bats in Churches Class Licence, completed on screen, and emailed to us.*

- It is a condition of your licence to provide Natural England with a report detailing action taken under this licence. This report must be completed, even if no action is taken.
- Send the completed form to Natural England (address above) to arrive no later than 15 January in each year of the site registration period, to cover the previous calendar year (1 January to 31 December inclusive).
- Failure to provide a report is a breach of the licence conditions and may lead to future applications for licences being refused.

This report is used to provide summary information to Defra and the European Union on the number and type of licences issued and the actual work carried out under the licence. The data collected from licence reports might also be used for scientific monitoring and evaluation purposes. Any request for information in this report will be considered under the Environmental Information Regulations 2004 and the Freedom of Information Act 2000, as appropriate. If you have concerns about the information you are providing please contact us.

### Section A Personal and Site details

1. Name of Registered Consultant:

Charlotte Packman

2. Registered Consultant's unique reference number:

B32RC001

3. Name of church:

All Saints' Church, Swanton Morley

Norfolk

4. County:

5. Site registration unique reference number:

6. Period covered by this report:

2020

Section B Bat Population Monitoring

Summary of population monitoring results

7. Were population monitoring surveys undertaken for the reporting year?

Yes  No

If yes, please complete sections 8 and 9 below.

8. Population monitoring survey details for the reporting year

Date	Type of survey	Details e.g. area of focus, general survey etc.
01/05/20	Emergence	South side of Chancel (access area)
18/05/20	Emergence	South side of Chancel (access area)
21/07/20	Emergence	South side of Chancel (access area)

9. Survey results and comparisons

Bat species	Peak count previous year *	Peak count this year	Maternity roost present?	Have bats responded as predicted to licensed activities and management measures?

Natterer's bat	55 (2019)	49 (2020)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p><b>Notes:</b> please include type of roost present, ecological functionality, location of roosts and nursery clusters, description of entry exit locations. <b>Highlight and explain any significant differences to previous year results and any adverse or unintended impacts. If bats have not responded as predicted to licensed activities and management measures, please explain why and what measures will be taken.</b></p>				
<p>Maternity roost ecological functionality has been retained at the church. Evident from monitoring cameras installed in the south chancel eaves void that Natterer's bats are using the south chancel eaves void/roof where enhancements were built-in during spring of the previous season (2019). Blocking of access points into the church interior was undertaken in spring 2020 - however some Natterer's are still gaining access to the interior by a previously unknown access point (gaining access to interior at chancel roof apex via south chancel eaves - scaling length of the truss). This will be blocked from the exterior side in early 2021 (expected that additional blocking may be needed). Roost locations - south chancel eaves void (intended location), nave and south aisle (interior), access - south chancel eaves.</p>				
Bat species	Peak count previous year *	Peak count this year	Maternity roost present this reporting year?	Have bats responded as predicted to licensed activities and management measures?
Common pipistrelle	11 (2019)	5 (2020)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>Notes:</b> please include type of roost present, ecological functionality, location of roosts and nursery clusters, description of entry exit locations. <b>Highlight and explain any significant differences to previous year results and any adverse or unintended impacts. If bats have not responded as predicted to licensed activities and management measures, please explain why and what measures will be taken.</b></p>				
<p>Common pipistrelles are assumed to be roosting in the south chancel eaves void (intended roosting area - enhanced in April 2019) - they were not observed entering/exiting the church interior at this location - but were observed emerging from the eaves on the outside here. Numbers fluctuate through the season and between years - therefore figures in line with expected variation. Ecological functionality retained (day roost for small number of individuals).</p>				
Bat species	Peak count previous year *	Peak count this year	Maternity roost present this reporting year?	Have bats responded as predicted to licensed activities and management measures?
Soprano pipistrelle	2 (2019)	1 (2020)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>Notes:</b> please include type of roost present, ecological functionality, location of roosts and nursery clusters, description of entry exit locations. <b>Highlight and explain any significant differences to previous year results and any adverse or unintended impacts. If bats have not responded as predicted to licensed activities and management measures, please explain why and what measures will be taken.</b></p>				

Soprano pipistrelle assumed to be roosting in the south chancel eaves void (intended roosting area - enhanced in April 2019) - not observed entering/exiting the interior at this location - but observed emerging from the eaves on the outside here. Ecological functionality retained (day roost of individuals).

Bat species	Peak count previous year *	Peak count this year	Maternity roost present this reporting year?	Have bats responded as predicted to licensed activities and management measures?
Serotine	1	0	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**Notes:** please include type of roost present, ecological functionality, location of roosts and nursery clusters, description of entry exit locations. **Highlight and explain any significant differences to previous year results and any adverse or unintended impacts. If bats have not responded as predicted to licensed activities and management measures, please explain why and what measures will be taken.**

Individual serotine have roosted in a soffit/roof on the south side of the porch (exterior roost, access at soffit) - this area was not affected by the works and was not monitored (so individual serotine may well still be using the roost).

\* If reporting on first year results, include peak count numbers from pre-treatment surveys.

Section C Summary of licensed action and work completed

10. Have licensed activities been undertaken at this registered site during the period covered by this report?

Yes  No

If no, please explain why:

11. Were all works conducted under this licence during the period specified above in line with the site registration form that was submitted for this place of worship?

Yes  No

If no, please explain why:

12. Please provide a general summary of all licensable activities, management measures, and monitoring and site management/maintenance undertaken during the reporting year.

Radio-tagging in spring 2020 prior to blocking of access to church interior allowed bat roost locations (inside and outside of the church) to be tracked. Intensive all-night monitoring (activity surveys with infrared cameras) post-blocking to check bats were not trapped inside church and to monitor access points (to enable further blocking, where required). Roost camera footage reviewed (confirmed bats using south chancel eaves void).

Section D Impacts caused by bat presence

13. Now that work has been undertaken to reduce the impact of bats, please fill in the table below by making a new assessment of the impacts that bat presence is currently having at the church. The information provided will be compared to the site registration document or previous licence returns to give an indication of success.

Do bats cause damage to: (if yes, please rate on scale of 1-4 where 1= tolerable and 4 = severe)	<ul style="list-style-type: none"> <li>• The fabric of the church</li> <li>• Monuments</li> <li>• Fixtures and fittings</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    Scale: 2 <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    Scale: 2 <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    Scale: 2
Please provide details of damage, if any:	Damage reduced, but still impacted by dropping and urine deposition.	
Do bats disrupt or stop worship taking place at the church? (if yes, please rate on scale of 1-4 where 1 = tolerable and 4 = severe)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    Scale:	

If yes, please provide details:		
Do bats disrupt or stop the church being used for:  (if yes, please rate on scale of 1-4 where 1 = tolerable and 4 = severe)	<ul style="list-style-type: none"> <li>• Weddings</li> <li>• Funerals</li> <li>• Community activities</li> </ul>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    Scale: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    Scale: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    Scale:
If yes, please provide details:	Clean-up still required, but not to same extent as previously.	

Section E Management and progress towards meeting outcomes

14. Please describe the progress that has been made towards meeting the agreed outcomes as described in the site registration form:

Roosting features and rafter bat boxes were built in to south chancel eaves/roof in spring 2019 - and access to church interior was restricted to just two two-way access points and two one-way (exit) access points. In spring 2020, the two two-way access points were fitted with one-way excluders, post-emergence, to block access to the church interior. However bats found an alternative (previously unknown) access route into the church: some continued to roost inside the church, some used the (intended) south chancel eaves void where roost features had been built in. Church representatives report a reduction in droppings/urine and impacts from the bats but as yet complete exclusion of the Natterer's bat maternity colony from the church interior has not been achieved. It was expected that this could happen and further blocking was planned for - this will be undertaken in early 2021. Some delays to activities due to Covid-19 restrictions.

15. Given the results achieved this year, will you be undertaking work differently next year than described in the site registration form or in previous licence reports?

Yes     No

16. If yes, provide details about any changes in approach:



(It was anticipated that additional blocking may be required).

Please note that:

If details within an authorised site registration form change, which could affect Natural England's licensing assessment, the Licensee and Primary Registered Consultant must apply promptly to Natural England with an amended site registration form to allow reassessment.

Subject to natural change, in the unexpected event that monitoring reveals that populations have not responded as predicted to the licensed activities and risks to bats have increased, the Licensee and Primary Registered Consultant must promptly submit an amended site registration form and/or an adaptive management plan to Natural England of further measures and monitoring needed to address these risks. No licensed activities may continue until written authorisation has been received from Natural England.

#### PRIMARY REGISTERED CONSULTANT DECLARATION

I declare, as the Primary Registered Consultant for this registered site, that:

17. I have personally completed this licence return form.

Yes, I confirm

18. I accept responsibility for the information provided.

Yes, I confirm

#### LICENSEE DECLARATION

I declare, as the Licensee, that:

19. To the best of my belief and knowledge the information in this licence return form is accurate.

Yes, I confirm

## 6.3 2021 season

### Bats in Churches Class Licence WML-CL32 Report of action taken under licence

Wildlife Licensing, Natural England, Horizon House, Deanery Road, Bristol. BS1 5AH  
Email: [BatsinChurchesCL@naturalengland.org.uk](mailto:BatsinChurchesCL@naturalengland.org.uk)



The Primary Registered Consultant and Licensee must submit an annual report to Natural England to be received no later than 15 January in each year of site registration.

Separate forms must be completed for each registered site.

Guidance Notes: *Please read the following notes carefully before completing this form in block capitals or type. This form may be downloaded from the Huddle site for the Bats in Churches Class Licence, completed on screen, and emailed to us.*

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- Failure to provide a report is a breach of the licence conditions and may lead to future applications for licences being refused.

This report is used to provide summary information to Defra and the European Union on the number and type of licences issued and the actual work carried out under the licence. The data collected from licence reports might also be used for scientific monitoring and evaluation purposes. Any request for information in this report will be considered under the Environmental Information Regulations 2004 and the Freedom of Information Act 2000, as appropriate. If you have concerns about the information you are providing please contact us.

#### Section A Personal and Site details

1. Name of Registered  
Consultant:

Charlotte Packman

2. Registered Consultant's unique reference  
number:

B32RC001

3. Name of  
church:

All Saints' Church, Swanton Morley

Norfolk

4. County:

5. Site registration unique reference number:

6. Period covered by this report:

2021

Section B Bat Population Monitoring

Summary of population monitoring results

7. Were population monitoring surveys undertaken for the reporting year?

Yes  No

If yes, please complete sections 8 and 9 below.

8. Population monitoring survey details for the reporting year

Date	Type of survey	Details e.g. area of focus, general survey etc.
03/08/21	Emergence	South side of Chancel (access area)
11/05/21	Emergence	South side of Chancel (access area)

9. Survey results and comparisons

Bat species	Peak count previous year *	Peak count this year	Maternity present?	roost	Have bats responded as predicted to licensed activities and management measures?

Natterer's bat	49 (2020)	13* (2021)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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**Notes:** please include type of roost present, ecological functionality, location of roosts and nursery clusters, description of entry exit locations. **Highlight and explain any significant differences to previous year results and any adverse or unintended impacts. If bats have not responded as predicted to licensed activities and management measures, please explain why and what measures will be taken.**

\*2020 count is incomplete - high level of Natterer's bat activity inside church not consistent with low exterior/emergence count - this is a large and complex church, the bats must be using a different (new) access point (previously access was always south side of chancel). Some Natterer's bats recorded exiting from north side of chancel and one from south chancel door. Internally, some exiting from apex of chancel roof (west end) - but not clear how/where this is connected to exterior access.

Maternity roost ecological functionality has been maintained at the church (high levels of activity inside and young observed flying). Evident from monitoring cameras installed in the south chancel eaves void that Natterer's bats are using the south chancel eaves void/roof where enhancements were built-in. Maternity roost/nursery clusters mostly at east end of nave (above central ridge beam) and north wall of south aisle (east and west ends).

Bat species	Peak count previous year *	Peak count this year	Maternity roost present this reporting year?	Have bats responded as predicted to licensed activities and management measures?
Common pipistrelle	5 (2020)	2 (2021)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**Notes:** please include type of roost present, ecological functionality, location of roosts and nursery clusters, description of entry exit locations. **Highlight and explain any significant differences to previous year results and any adverse or unintended impacts. If bats have not responded as predicted to licensed activities and management measures, please explain why and what measures will be taken.**

Pipistrelles observed roosting in rafter bat box at east end of south chancel (intended roosting area - enhanced in April 2019) - they were not observed entering/exiting the church interior at this location - but were observed emerging from the eaves on the outside here. Numbers fluctuate through the season and between years (also note only two monitoring surveys this year) - therefore figures in line with expected variation. Ecological functionality retained (day roost for small number of individuals).

Bat species	Peak count previous year *	Peak count this year	Maternity roost present this reporting year?	Have bats responded as predicted to licensed activities and management measures?
Soprano pipistrelle	1 (2020)	1 (2021)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**Notes:** please include type of roost present, ecological functionality, location of roosts and nursery clusters, description of entry exit locations. **Highlight and explain any significant differences to previous year results and any adverse or unintended impacts. If bats have not responded as**

<b>predicted to licensed activities and management measures, please explain why and what measures will be taken.</b>				
Soprano pipistrelle assumed to be roosting in the south chancel eaves void (intended roosting area - enhanced in April 2019) - not observed entering/exiting the interior at this location - but observed emerging from the eaves on the outside here. Ecological functionality retained (day roost of individuals).				
Bat species	Peak count previous year *	Peak count this year	Maternity roost present this reporting year?	Have bats responded as predicted to licensed activities and management measures?
Serotine	0	1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Notes:</b> please include type of roost present, ecological functionality, location of roosts and nursery clusters, description of entry exit locations. <b>Highlight and explain any significant differences to previous year results and any adverse or unintended impacts. If bats have not responded as predicted to licensed activities and management measures, please explain why and what measures will be taken.</b>				
Individual serotine have roosted in a soffit/roof on the south side of the porch (exterior roost, access at soffit) - this area was not affected by the works. This year a serotine was recorded exiting from the south chancel eaves void (also recorded on roost camera) - but not recorded inside the church, suggesting roosting in south chancel eaves void rather than church interior.				

\* If reporting on first year results, include peak count numbers from pre-treatment surveys.

Section C Summary of licensed action and work completed

10. Have licensed activities been undertaken at this registered site during the period covered by this report?  Yes  No

If no, please explain why:

Monitoring phase, no works planned. Small section of south chancel roof was inspected in January 2020 to see if further blocking was possible but access route to church interior was not evident so no further blocking was undertaken.

11. Were all works conducted under this licence during the period specified above in line with the site registration form that was submitted for this place of worship?

Yes  No

If no, please explain why:

12. Please provide a general summary of all licensable activities, management measures, and monitoring and site management/maintenance undertaken during the reporting year.

No licensable activities. Monitoring phase. Further monitoring needed in 2022 to determine where new access points/routes are and if further blocking can be undertaken to prevent access to interior/encourage more roosting in south chancel eaves void/rafter bat boxes.

Section D Impacts caused by bat presence

13. Now that work has been undertaken to reduce the impact of bats, please fill in the table below by making a new assessment of the impacts that bat presence is currently having at the church. The information provided will be compared to the site registration document or previous licence returns to give an indication of success.

Do bats cause damage to: (if yes, please rate on scale of 1-4 where 1= tolerable and 4 = severe)	<ul style="list-style-type: none"> <li>The fabric of the church</li> <li>Monuments</li> <li>Fixtures and fittings</li> </ul>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    Scale: 2 <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    Scale: 2 <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No    Scale: 2
Please provide details of damage, if any:	Damage reduced, but still impacted by dropping and urine deposition.	
Do bats disrupt or stop worship taking place at the church? (if yes, please rate on scale of 1-4 where 1 = tolerable and 4 = severe)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    Scale:	
If yes, please provide details:		

<p>Do bats disrupt or stop the church being used for: (if yes, please rate on scale of 1-4 where 1 = tolerable and 4 = severe)</p>	<ul style="list-style-type: none"> <li>• Weddings</li> <li>• Funerals</li> <li>• Community activities</li> </ul>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    Scale: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    Scale: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    Scale:
<p>If yes, please provide details:</p>	<p>Clean-up still required, but not to same extent as previously.</p>	

Section E Management and progress towards meeting outcomes

14. Please describe the progress that has been made towards meeting the agreed outcomes as described in the site registration form:

New roost provision (rafter bat boxes and features built into south chancel eaves void) are being used by both Natterer's bats and pipistrelles - particularly the latter. However, Natterer's bat maternity roost continues to be in church interior and access route to interior is unclear. Church wardens report bat impacts inside the church are reduced/not as significant as previously, but still impacted by presence of Natterer's bat maternity colony. Use of the south chancel eaves void and rafter bat boxes appears to have increased, it is therefore hoped that over time the impact of bats inside the church will be further reduced. However this would be aided/accelerated by further blocking, but this may not be possible given the complexity and inaccessibility of the new access routes (and budget constraints). Further monitoring in 2022 will help to determine if further measures are feasible.

15. Given the results achieved this year, will you be undertaking work differently next year than described in the site registration form or in previous licence reports?

Yes     No

16. If yes, provide details about any changes in approach:

(It was anticipated that additional blocking may be required - will need to see results of 2022 monitoring).

Please note that:

If details within an authorised site registration form change, which could affect Natural England's licensing assessment, the Licensee and Primary Registered Consultant must apply promptly to Natural England with an amended site registration form to allow reassessment.

Subject to natural change, in the unexpected event that monitoring reveals that populations have not responded as predicted to the licensed activities and risks to bats have increased, the Licensee and Primary Registered Consultant must promptly submit an amended site registration form and/or an adaptive management plan to Natural England of further measures and monitoring needed to address these risks. No licensed activities may continue until written authorisation has been received from Natural England.

#### PRIMARY REGISTERED CONSULTANT DECLARATION

I declare, as the Primary Registered Consultant for this registered site, that:

17. I have personally completed this licence return form.

Yes, I confirm

18. I accept responsibility for the information provided.

Yes, I confirm

#### LICENSEE DECLARATION

I declare, as the Licensee, that:

19. To the best of my belief and knowledge the information in this licence return form is accurate.

Yes, I confirm



## 6.4 2022 season

### Bats in Churches Class Licence WML-CL32 Report of action taken under licence

Wildlife Licensing, Natural England, Horizon House, Deanery Road, Bristol. BS1 5AH  
Email: [BatsinChurchesCL@naturalengland.org.uk](mailto:BatsinChurchesCL@naturalengland.org.uk)



The Primary Registered Consultant and Licensee must submit an annual report to Natural England to be received no later than 15 January in each year of site registration.

Separate forms must be completed for each registered site.

Guidance Notes: *Please read the following notes carefully before completing this form in block capitals or type. This form may be downloaded from the Huddle site for the Bats in Churches Class Licence, completed on screen, and emailed to us.*

- It is a condition of your licence to provide Natural England with a report detailing action taken under this licence. This report must be completed, even if no action is taken.
- Send the completed form to Natural England (address above) to arrive no later than 15 January in each year of the site registration period, to cover the previous calendar year (1 January to 31 December inclusive).
- Failure to provide a report is a breach of the licence conditions and may lead to future applications for licences being refused.

This report is used to provide summary information to Defra and the European Union on the number and type of licences issued and the actual work carried out under the licence. The data collected from licence reports might also be used for scientific monitoring and evaluation purposes. Any request for information in this report will be considered under the Environmental Information Regulations 2004 and the Freedom of Information Act 2000, as appropriate. If you have concerns about the information you are providing please contact us.

#### Section A Personal and Site details

1. Name of Registered Consultant:

Charlotte Packman

2. Registered Consultant's unique reference number:

B32RC001

3. Name of church:

All Saints' Church, Swanton Morley

Norfolk

4. County:

5. Site registration unique reference number:

6. Period covered by this report:

Section B Bat Population Monitoring

Summary of population monitoring results

7. Were population monitoring surveys undertaken for the reporting year?

 Yes  No

If yes, please complete sections 8 and 9 below.

8. Population monitoring survey details for the reporting year

Date	Type of survey	Details e.g. area of focus, general survey etc.
03/05/22	Emergence	South side of Chancel (main access area) & interior
26/07/22	Emergence	South side of Chancel (main access area), north side of Chancel, north aisle, interior

9. Survey results and comparisons

Bat species	Peak count previous year *	Peak count this year	Maternity present?	roost	Have bats responded as predicted to licensed activities and management measures?

Natterer's bat	13 (2021)	15 (2022)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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**Notes:** please include type of roost present, ecological functionality, location of roosts and nursery clusters, description of entry exit locations. **Highlight and explain any significant differences to previous year results and any adverse or unintended impacts. If bats have not responded as predicted to licensed activities and management measures, please explain why and what measures will be taken.**

Counts incomplete - high level of Natterer's bat activity inside church not consistent with low exterior/emergence count - this is a very large and complex church, and the bats now appear to be using multiple new access points (previously access was always south side of chancel). Internally, some exiting from apex of chancel roof - but not clear how/where this is connected to exterior access (this was previously inspected (opening up of roof section) but route still unclear). Some also exiting from north side of chancel - far east end (between wall and wood/rafters). Note previously also seen exiting from south chancel door. Likely to be very difficult to block these new access points (other than south chancel door). Therefore excluding the bats from the church interior is unlikely to be possible, but it is hoped that over time uptake of the artificial roost features may increase (these are already used by the Natterer's bats to some extent (day and night roosting) - evident from roost camera footage).

Maternity roost ecological functionality has been maintained at the church (high levels of activity inside and young observed flying). Evident from monitoring cameras installed in the south chancel eaves void that Natterer's bats are using the south chancel eaves void/roof where enhancements were built-in. Maternity roost/nursery clusters mostly at east end of nave (above central ridge beam) and north wall of south aisle (east and west ends).

Bat species	Peak count previous year *	Peak count this year	Maternity roost present this reporting year?	Have bats responded as predicted to licensed activities and management measures?
Common pipistrelle	2 (2021)	4 (2022)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

**Notes:** please include type of roost present, ecological functionality, location of roosts and nursery clusters, description of entry exit locations. **Highlight and explain any significant differences to previous year results and any adverse or unintended impacts. If bats have not responded as predicted to licensed activities and management measures, please explain why and what measures will be taken.**

Pipistrelles observed roosting in rafter bat box at east end of south chancel (intended roosting area - enhanced in April 2019). However some also observed accessing church interior at east end of south chancel - between wall and rafters (new access point). Another new access feature: some pipistrelles exiting from 'hole' in feature at top of window, north aisle, second window from the east. Some interest in tower also.

Ecological functionality retained (day roost for small number of individuals).

Bat species	Peak count previous year *	Peak count this year	Maternity roost present this reporting year?	Have bats responded as predicted to licensed activities and management measures?

Soprano pipistrelle	1 (2021)	11 (2022)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>Notes:</b> please include type of roost present, ecological functionality, location of roosts and nursery clusters, description of entry exit locations. <b>Highlight and explain any significant differences to previous year results and any adverse or unintended impacts. If bats have not responded as predicted to licensed activities and management measures, please explain why and what measures will be taken.</b></p>				
<p>Pipistrelles observed roosting in rafter bat box at east end of south chancel (intended roosting area - enhanced in April 2019). However some also observed accessing church interior at east end of south chancel - between wall and rafters (new access point). Another new access feature: some pipistrelles exiting from 'hole' in feature at top of window, north aisle, second window from the east. Some interest in tower also.</p> <p>Ecological functionality retained (day roost for small number of individuals).</p>				
Bat species	Peak count previous year *	Peak count this year	Maternity roost present this reporting year?	Have bats responded as predicted to licensed activities and management measures?
Serotine	1 (2021)	1 (2022)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p><b>Notes:</b> please include type of roost present, ecological functionality, location of roosts and nursery clusters, description of entry exit locations. <b>Highlight and explain any significant differences to previous year results and any adverse or unintended impacts. If bats have not responded as predicted to licensed activities and management measures, please explain why and what measures will be taken.</b></p>				
<p>Individual serotine have roosted in a soffit/roof on the south side of the porch (exterior roost, access at soffit) - this area was not affected by the works. Last year and this year an individual serotine was recorded exiting from the south chancel eaves void (enhancements/artificial roosts area) - but not recorded inside the church, suggesting roosting in south chancel eaves void rather than church interior. Ecological functionality maintained (day roost of individual serotine).</p>				

\* If reporting on first year results, include peak count numbers from pre-treatment surveys.

Section C Summary of licensed action and work completed

10. Have licensed activities been undertaken at this registered site during the period covered by this report?

Yes  No

If no, please explain why:

Monitoring phase, no works planned.

11. Were all works conducted under this licence during the period specified above in line with the site registration form that was submitted for this place of worship?

Yes     No

If no, please explain why:

12. Please provide a general summary of all licensable activities, management measures, and monitoring and site management/maintenance undertaken during the reporting year.

No licensable activities. Monitoring phase.

Section D Impacts caused by bat presence

If work has been undertaken to reduce the impact of bats, please fill in the table below by making a new assessment of the impacts that bat presence is currently having at the church. The information provided will be compared to the site registration document or previous licence returns to give an indication of success.

<p>Do bats cause damage to: (if yes, please rate on scale of 1-4 where 1= tolerable and 4 = severe)</p>	<ul style="list-style-type: none"> <li>• The fabric of the church</li> <li>• Monuments</li> <li>• Fixtures and fittings</li> </ul>	<p><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    Scale: 2</p> <p><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    Scale: 2</p> <p><input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    Scale: 2</p>
<p>Please provide details of damage, if any:</p>	<p>Damage reduced, but still impacted by dropping and urine deposition.</p>	
<p>Do bats disrupt or stop worship taking place at the church?</p>	<p><input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No    Scale:</p>	

(if yes, please rate on scale of 1-4 where 1 = tolerable and 4 = severe)		
If yes, please provide details:		
Do bats disrupt or stop the church being used for: (if yes, please rate on scale of 1-4 where 1 = tolerable and 4 = severe)	<ul style="list-style-type: none"> <li>• Weddings</li> <li>• Funerals</li> <li>• Community activities</li> </ul>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    Scale: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    Scale: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    Scale:
If yes, please provide details:	Clean-up still required, but not to same extent as previously.	

Section E Management and progress towards meeting outcomes

13. Please describe the progress that has been made towards meeting the agreed outcomes as described in the site registration form:

New roost provision (rafter bat boxes and features built into south chancel eaves void) are being used by Natterer's bats, pipistrelles and serotine. However, Natterer's bat maternity roost continues to be in church interior and exact access route to interior remains unclear (complex/indirect route). Church wardens report bat impacts inside the church are reduced/not as significant as previously, but still impacted by presence of Natterer's bat maternity colony. Use of the south chancel eaves void and rafter bat boxes appears to have increased, it is therefore hoped that over time the impact of bats inside the church will be further reduced. However this would be aided/accelerated by further blocking, but this may not be possible given the complexity and inaccessibility of the new access routes (and budget constraints). No further monitoring planned (end of project/funding) - this is the final licence return.

14. Given the results achieved this year, will you be undertaking work differently next year than described in the site registration form or in previous licence reports?

Yes     No

15. If yes, provide details about any changes in approach:

Please note that:

If details within an authorised site registration form change, which could affect Natural England's licensing assessment, the Licensee and Primary Registered Consultant must apply promptly to Natural England with an amended site registration form to allow reassessment.

Subject to natural change, in the unexpected event that monitoring reveals that populations have not responded as predicted to the licensed activities and risks to bats have increased, the Licensee and Primary Registered Consultant must promptly submit an amended site registration form and/or an adaptive management plan to Natural England of further measures and monitoring needed to address these risks. No licensed activities may continue until written authorisation has been received from Natural England.

#### PRIMARY REGISTERED CONSULTANT DECLARATION

I declare, as the Primary Registered Consultant for this registered site, that:

16. I have personally completed this licence return form.

 Yes, I confirm

17. I accept responsibility for the information provided.

 Yes, I confirm

#### LICENSEE DECLARATION

I declare, as the Licensee, that:

18. To the best of my belief and knowledge the information in this licence return form is accurate.

 Yes, I confirm