BADGER REPORT

PRINCES PARADE, HYTHE

REF NO. 3609-LLB-RP-EC-0012-S4-P02

STATUS: PLANNING

DATE OF ISSUE: 03/07/2018

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Author	Emily Cummins BSc (Hons), PgDip, GradCIEEM
Reviewed by	Samuel Durham BSc (Hons), MCIEEM
Checked and approved by	Samuel Durham BSc (Hons), MCIEEM

1. EXECUTIVE SUMMARY

1.1 Four badger setts (Setts A, B, C and D) were recorded on the Princes Parade application site.

1.2 Setts A, B, C and D were monitored over a period between March and June 2018. Setts were monitored for signs of badger activity including pawprints, hair, fresh digging, fresh latrines and physical presence of animals. Methods to monitor the setts included *'soft blocking'* of sett entrances, camera trapping sett entrances and dusk monitoring visits.

1.3 The results of these surveys indicate that Sett B and Sett C are in 'current use' by badgers.

1.4 A licence from Natural England will be required to close Setts B and C. Sett closure works are restricted to the period between 1st July to 30th November.

1.5 Images from the camera trap at Sett B show a badger cub using the sett entrance. The presence of a badger cub confirms Sett B as a breeding sett.

1.6 An artificial sett will need to be provided to compensate for the loss of the breeding sett. Detail of the compensatory sett design and specific location will be provided within the documents that will be produced to support the Natural England licence application.

1.7 Evidence that the badgers that utilise Setts B and C have located the compensatory sett will be required before closure of Setts B and C can proceed.

1.8 A suitably experienced ecologist will need to monitor Setts A and C throughout the sett closure process, in accordance with the terms of the approved licence. An ecologist named on the licence, or a suitably experienced ecologist accredited by the named ecologist, will need to confirm that the setts are no longer in use by badgers before the destruction of these setts can begin.

1.9 The areas around Setts A and D showed signs of badger activity in March 2018 (although use of these setts by badger was not confirmed). However, badger activity subsequently stopped at both setts and no signs of badger activity were observed during the May and June monitoring visits.

1.10 For this reason, Setts A and D are not considered to be in 'current use' by badger.

1.11 To ensure that badgers can maintain access to an existing on-site sett when Setts B and C are closed, impacts to Sett A will be avoided and a buffer area will be maintained around the sett.

1.12 Sett D should be removed under ecological supervision within three months of the date of issue of this report. At present, the removal of these two setts does not require a Natural England licence. As a precaution, prior to the commencement of the supervised destructive search, Sett D should be checked by a suitably experienced ecologist for signs of badger activity. In the event that signs of badger activity are recorded at these setts, the destructive search will not proceed until a licence has been secured to facilitate closure of this sett.

2. INTRODUCTION

INSTRUCTION

2.1 Lloyd Bore Ltd was instructed to conduct survey work for badger (*Meles meles*) at Princes Parade, Hythe, Kent (approximate centre TR 18339 34792).

DESCRIPTION OF PROPOSED DEVELOPMENT

2.2 The application site is *c.*10ha in area. The proposed development will include a new leisure centre, 150 new homes, public parking and commercial buildings. Approximately half of the application site will be delivered as open space which will include large areas of tall grassland (within the Western Open Space) and dense scrub (on the northern embankment).

SURVEY OBJECTIVES

2.3 The objectives of the survey and report are to:-

- Locate signs of badger presence, such as setts, dung pits/latrines, snuffle holes and/or commuting paths on the application site and within a 30m radius of the application site;
- If any badger setts, or possible badger setts, are identified, confirm whether they are in 'current use' by badger;
- Make recommendations, if required, regarding the need for further survey work, appropriate avoidance measures, mitigation or, if necessary, compensation measures; and
- Determine whether a licence from Natural England is likely to be required to facilitate development.

3. SITE AND BADGER SETT LOCATIONS

Figure 1 Site location indicated by red line boundary (red line boundary is approximate). Locations of Setts A, B, C and D are shown as blue circles. The letters shown on the circles correspond with the Sett reference letters used throughout this report. Image courtesy of (c) Getmapping PLC. © Crown Copyright, all rights reserved. 2018 Licence number 0100031673.

4. METHOD

DESK STUDY

4.1 A biological record search was undertaken by Kent and Medway Biological Records Centre (KMBRC) on 5th October 2015. The data search included a search for records of badger.

4.2 A search radius of 2km was used from the application site boundary.

HABITAT ASSESSMENT

4.3 An initial site visit of the application site was conducted by David Smith (Hons), PhD, MCIEEM on 14th September 2015. This assessment was used to record any signs of badger presence.

4.4 A second walkover of the application site was undertaken by John Young in February 2016. All on-site habitats, and all terrestrial habitats located within 30m of the application site, were searched for badger field signs.

4.5 Three mammal burrow networks (Setts A, B and C) were identified during the above walkover and were subsequently monitored for almost five months between 2nd May and 20th September 2016 - to determine whether these burrows were in 'current use' by badger. Results of the 2016 monitoring can be found in the *Technical Appendix 7.6 Mammal Report* (Lloyd Bore, 2017).

4.6 During habitat clearance on the application site in February 2018, fresh badger latrines were discovered at Sett B. A further search for badger field signs was undertaken within the application site and a 30m radius around the site, and an additional mammal burrow network (Sett D) was identified in the south east of the application site.

4.7 The results from this report provide an up-to-date record of badger activity on the site and supersede the results of previous badger field sign and monitoring surveys undertaken within the survey area.

4.8 Based on the site assessment work conducted, the entire vegetated area of the application site provides suitable foraging habitat for badger. This suitable foraging habitat totals 8ha in area.

BADGER SURVEY

4.9 Survey visits were undertaken by John Young, Emily Cummins BSc (Hons), PgDip, GradCIEEM and Alana Shoosmith BSc (Hons), MSc, GradCIEEM between March and June 2018.

4.10 Emily Cummins has over five years' experience in badger monitoring surveys. John Young has over three years' experience in badger monitoring surveys.

4.11 All badger setts were checked for evidence of recent badger activity.

4.12 Signs of activity can include pawprints, fresh spoil heaps, snuffle holes, fresh dung pits and physical recorded presence of badgers.

4.13 All of the entrances on Sett B and Sett A were *'soft blocked'* by inserting sticks firmly into the ground in front of entrance holes. These sticks were wrapped with an adhesive tape so that, of any badgers pushed past the sticks to leave the sett, badger hairs would stick to the tape adhesive. The entrances were checked the following morning.

4.14 Camera traps were used to monitor Setts A, B and C. Camera traps were placed in front of entrances showing signs of recent badger activity. Camera traps were set up at setts in the evening and left for varying number of nights. On some occasions the camera traps were left for one night.

The longest period a camera trap was left was 12 nights. In total, camera traps were placed at Sett C for one night, Sett A for 20 nights and Sett B for 27 nights.

4.15 Dusk monitoring surveys were conducted on 12th April, 23rd April and 3rd of May. Two surveyors each observed an active entrance on Sett B during each visit. Surveyors sat approximately five meters from the sett entrance. Sett entrances were observed for badger activity for at least 90 minutes after sunset. Any emergence or possible emergence of badgers was recorded.

ASSESSMENT AND EVALUATION

4.16 Harris (*et al.*, 1989), Andrews (2013) and Natural England (2006) have been used to inform the survey work required and to assess the likely importance of on-site habitats for badgers.

4.17 Natural England guidance (2009a, 2009b) has been used as a guide in the interpretation of what 'current use' and 'disturbance' constitutes.

4.18 The Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2016) were used as guidance to determine the importance of the site, and the habitats immediately surrounding the site, for badgers.

ZONE OF INFLUENCE (ZOI)

4.19 The potential impact(s) of a development are not always limited to the boundaries of the site concerned. A development may also have the potential to impact on ecologically important sites, habitats or species beyond the site boundaries. The area over which a development may impact ecologically important features is known as the Zone of Influence (ZoI).

4.20 The ZoI is determined by the source / type of impact, the potential pathway(s) for that impact and the location and sensitivity of the ecologically important feature(s) beyond the boundary.

4.21 The proposed development will result in loss of the setts B, C and D on the east of the application site. Works will also have an impact on the sett A on the west of the application site through potential disturbance during the construction phase.

4.22 The removal of the majority of the application sites vegetation (*c.*8ha) will significantly reduce available foraging habitat for badgers on-site. Approximately *c.*3ha of suitable foraging habitat will be reinstated within the proposed development.

4.23 The ZoI is likely to be confined to the red line boundary of the site and those areas just beyond as the proposed development will not affect suitable badger habitat beyond the red line boundary.

SURVEY LIMITATIONS

4.24 Vegetation cover increased significantly over the course of the sett monitoring. By mid-May vegetation concealed most of the sett entrances at Sett B. As a result, field signs may have been missed and camera trapping was limited to entrances where vegetation had been trampled down. However, sufficient evidence was provided by camera traps to make an accurate assessment of Sett B and vegetation cover is not considered a limitation in sett assessment.

4.25 Sett D could not be accurately assessed as the sett is under dense blackthorn cover. Vegetation reduction by hand tools under ecological supervision in February 2018 partially exposed the sett entrance. No signs of badger activity indicating 'current use' were recorded, and mammal paths, that were previously well used became overgrown in May 2018. Due to the low levels of badger activity at Sett D, it is likely that this sett is only in not in 'current use' by badger.

4.26 There are no material limitations to the effectiveness of the survey work undertaken.

5. SURVEY RESULTS

DESK STUDY

5.1 The KMBRC data search returned one recent (2012) record of badger within 1km of the application site.

BADGER SURVEY RESULTS

SETT A

5.2 Fresh spoil heaps were recorded at this sett on the first day of monitoring on 22nd March 2018. A communal badger latrine with fresh dung pits was recorded close to the sett. A single fresh dung pit was also recorded within the woody scrub close to the sett.

5.3 Every entrance of Sett A was soft blocked with sticks. These sticks were not moved for the duration of the monitoring. Over the course of the monitoring period, sett activity significantly reduced, and no fresh dung was recorded within the communal latrine since first observed.

5.4 Camera traps were set-up near to the sett entrances most likely to be used by badgers. No badgers were caught on camera for the duration of the monitoring survey. The camera traps captured a fox (*Vulpes vulpes*) and her cubs using the sett entrances on numerous occasions.

SETT B

5.5 Fresh digging and fresh spoil heaps were recorded at four entrance holes on the first monitoring day (Photo 1). Badger pawprints and badger hairs were recorded at the sett. Additionally, a fresh dung pit was recorded close to one of the entrance holes.

5.6 An adult badger was observed at an entrance hole during the dusk monitoring visits on 12th April, 23rd April and 3rd May. Additionally, images taken from camera traps left at this entrance hole confirmed that badgers were using the sett entrance throughout the monitoring period (Photo 2).

5.7 Camera traps set up in June captured a badger cub leaving a sett entrance on 12th June 2018 (Photo 3).

SETT C

5.8 Sett C showed signs indicating that the sett was in 'current use' during the monitoring. This included fresh spoil heads and signs of foraging.

5.9 The camera trap set up in May 2018 captured images of badgers entering and leaving the sett entrance. As badger were confirmed using the sett no further monitoring was required at Sett C as Sett A has been confirmed as a breeding sett.

SETT D

5.10 No signs of badger activity were recorded at Sett D during the monitoring period.

5.11 At the beginning of the monitoring period, a well-worn path was recorded leading from Sett D towards Sett B. Sett B sits *c.*30m north of Sett D. This has now become overgrown. Sett D is not in 'current use' by badger, is likely to only to be used occasionally by badgers and is likely an outlier sett.

6. PHOTOS

Photo 2: Fresh spoil heap at an entrance hole on Sett B

Photo 1: Adult badger leaving an entrance hole on Sett B

Photo 3: A badger cub leaving an entrance hole at Sett B

7. EVALUATION AND RECOMMENDATIONS

BADGER SETTS

SETT A

7.1 For the first initial assessment visit, Sett A showed signs that the sett was in 'current use' including fresh spoil heaps at entrance holes and fresh dung pits within a communal latrine close to the sett. However, no new field signs were identified in subsequent visits.

7.2 Fresh digging at entrance holes indicated recent badger activity at the sett, however, the camera trap captured a fox with cubs using the entrance hole. The fox and cubs were present at the sett for the duration of the monitoring period. The fresh digging at the entrance holes at Sett A are likely caused by fox and not badger.

7.3 Badgers are not currently occupying Sett A. However, fresh dung pits were recorded at a communal latrine near the sett in March 2018, which indicates recent badger activity and the possibility of badgers occupying the sett in the future cannot be ruled out.

7.4 To ensure that badgers can maintain access to an existing on-site sett when Setts B and C are closed, impacts to Sett A will be avoided and a buffer area will be maintained around the sett.

7.5 The extent of the buffer area will be *c.*20m from the outermost sett entrances. The area will be protected using hoarding and/or propped Heras fencing (or similar) fitted with debris netting. Gaps will be left underneath the hoarding or fencing to provide access for badgers. Wildlife protection signs will be affixed to the Heras fencing.

SETT B

7.6 Sett B is in 'current use' by badgers. The proposed development will result in the loss of Sett B. As the sett is in 'current use,' a Natural England licence will be required to close the sett. Sett closure works are restricted to the period between 1st July and 30th November.

7.7 The presence of a badger cub indicates that Sett B is a breeding sett.

7.8 For this reason, and given the distance (*c.*750m) between Setts B (which will be lost) and A (which will be retained), an artificial sett will need to be constructed under licence from Natural England - to compensate for the lost of the breeding sett. This will need to be constructed prior to the removal of Sett B. Additionally, evidence should be obtained to show that badgers have located the artificial sett and are no longer occupying Sett B prior to the sett being destroyed.

7.9 This will require a suitably experienced ecologist, named on the licence or accredited by the named ecologist, to monitor Sett B and the artificial sett throughout the sett closure process. This monitoring will use manual checks of the setts and use of camera traps.

7.10 Exclusion methods, such as one-way badger gates, will need to be in place for a minimum period of 21 days following the last sign indicating possible use of the site by badgers to the sett (Natural England, 2011).

7.11 The named ecologist will need to confirm that the sett is no longer in use by badgers before destruction of the sett can begin.

7.12 A suitably experienced ecologist will be present during the destruction of the sett.

7.13 Further information relating to badger mitigation and compensation can be found in the *Ecological Mitigation Strategy* (Lloyd Bore, 2018).

SETT C

7.14 Sett C is in 'current use' by badgers and a licence from Natural England will be required to close this sett. Sett closure work are restricted to the period between 1st July and 30th November.

7.15 As with Sett B, a suitably experienced ecologist will be required to monitor the sett throughout the closure process. Exclusion methods, such as one-way badger gates, will need to be in place for a minimum period of 21 days following the last sign indicating possible assess by badgers to the sett.

7.16 The named ecologist will need to confirm that the sett is no longer in use by badgers before destruction of the sett begins. The named ecologist, or an ecologist accredited by the named ecologist, will need to be present during the destruction of the sett.

SETT D

7.17 Sett D is not in 'current use' by badgers. Setts D should be removed under ecological supervision within three months of the date of issue of this report.

7.18 At present, the removal of this sett does not require a Natural England licence.

7.19 As a precaution, prior to the commencement of the supervised destructive search, Sett D should be checked by a suitably experienced ecologist for signs of badger activity.

7.20 In the event that signs of badger activity are recorded at these setts, the destructive search will not proceed until a licence has been secured to facilitate closure of this sett.

ASSESSMENT OF EFFECTS

7.21 The proposed development will lead to the loss of Sett B and Sett C. In the absence of sett-related mitigation and compensation, this will result in the loss of a breeding sett. The proposed development will also result in the loss of badger foraging habitat.

7.22 If the sett-related mitigation and compensation measures set out in this report are adopted and implemented, the suitability of the site for badger breeding will be maintained, badgers will be provided with continued refuge opportunity and the effects of the proposed development on badger setts will be appropriately controlled.

BADGER FORAGING HABITAT

7.23 Approximately *c.*8 ha of suitable foraging habitat will be removed during the construction stage of the proposed development.

7.24 Availability of foraging habitat on the application site will be significantly limited during the construction phase.

7.25 Approximately *c.*3ha of suitable foraging habitat will be reinstated post-development.

7.26 The proposed development will result in a net loss of *c.*5 ha of suitable badger foraging habitat from the application site in the long-term.

7.27 To help minimise the significance of this loss of foraging habitat, new plantings will be designed to maximise abundance of badger invertebrate prey and maximise seasonal abundance of fruits and berries - which can be an important source of autumn forage for badger.

FURTHER DETAIL OF MITIGATION AND COMPENSATION MEASURES

7.28 Further detail of mitigation, compensation and enhancement measures relating to badgers can be found in the *Ecological Mitigation Strategy* (Lloyd Bore, 2018).

7.29 Full detail of the badger mitigation and compensation strategy for Setts B and C will be included within the badger mitigation licence application that will be submitted to Natural England.

7.30 For this reason, no further detail of badger mitigation measures is required to inform the determination of the planning application. Instead, this detail will be provided to Natural England in the form of a badger mitigation licence application.

7.31 Full detail of badger mitigation measures (avoidance, mitigation and compensation) will therefore be reviewed and scrutinised by Natural England, and there is no need for the local planning authority to duplicate this role.

7.32 For this reason, the local planning authority should adopt a 'light touch' approach when reviewing the badger mitigation proposals contained in this report. It is considered that, if required and desirable, a planning condition could be attached to the planning permission requiring the applicant to submit a copy of the approved badger mitigation licence to the local planning authority for their records.

8. REFERENCES

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9. APPENDIX 1: SUMMARY OF LEGISLATION AND PLANNING POLICY

9.1 The Protection of Badgers Act 1992 (as amended) affords legal protection to badgers and their setts.

9.2 The specific legal protection afforded to badgers and/or badger setts can be found within the Sections of the legislation and relevant case law. This report focuses on those acts that are most relevant to proposed developments.

9.3 In general, any person that:-

- Wilfully kills, injures or takes a badger (or attempts to do so);
- Cruelly ill-treats a badger/s;
- Digs for a badger/s, to include blocking tunnels;
- Damages or destroys a badger sett, or obstruct access to it; and
- Disturbs a badger when it is occupying a sett.

9.4 ...may be guilty of an offence.

9.5 A badger sett, is defined as; "any structure or place which displays signs indicating current use by a badger."

9.6 The term 'badger sett' relates to the system of tunnels and chambers in which badgers may live, the entrances and immediate surrounds, to include associated spoil heaps.

9.7 "Current use" is defined by Natural England (Natural England, 2009a). For a sett to fall under the Protection of Badgers Act it must show signs of current use. The sett therefore does not need to be occupied by animals for it to be afforded legal protection.

9.8 A sett is likely to remain protected until field signs have deteriorated indicating the sett is no longer in current use by badgers (Natural England 2009a). Intermittent use of a sett by badgers is therefore likely to infer the sett remained legally protected.

9.9 Natural England guidance (2009b) details that the below activities are unlikely to surmount to disturbance:

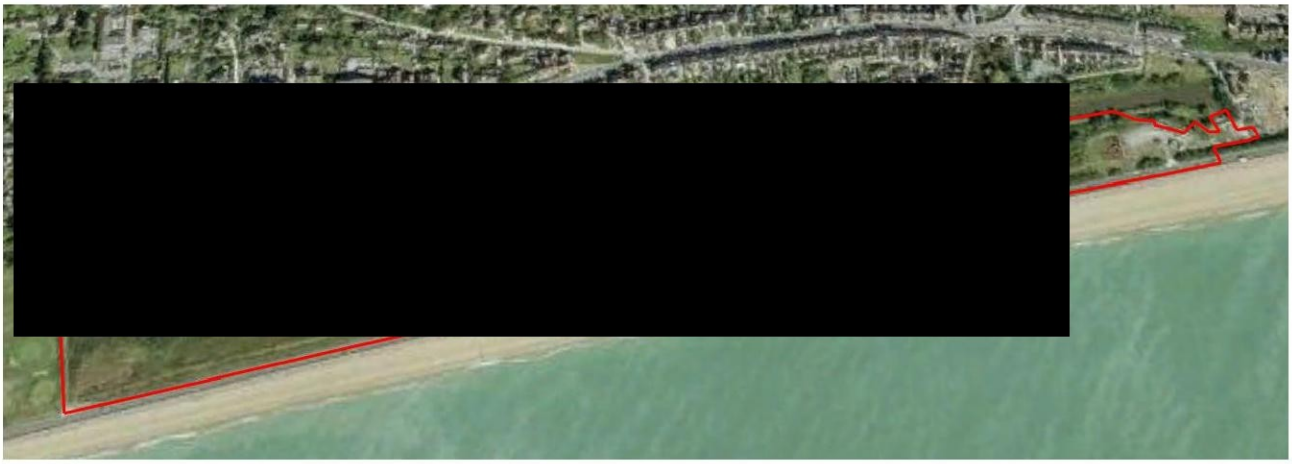
- Development, or other activities occurring close to badger setts (use of hand tools and/or machinery), where there is no reason to believe that the 'disturbance' will be greater than that which badgers commonly tolerate, and therefore any badgers occupying the set are unlikely to be disturbed;
- Vegetation removal (to include felling small trees or shrubs) over or adjacent to setts (using hand tools and/or machinery); and
- Clearing out of ditches/watercourses using machinery and/or hand tools where badger setts are present.

9.10 Maximum penalties are punishable with fines up to £5,000 per offence and up to 6 months imprisonment. Actions affecting multiple animals can be construed as separate offences and therefore penalties can be applied per animal impacted.

9.11 Under certain circumstances licences can be granted by the Statutory Nature Conservation Organisation (Natural England in England) to permit actions that would otherwise be unlawful.

9.12 Local authorities have obligations under section of the Natural Environment and Rural Communities Act (NERC) 2006 to have regard to the purpose of conserving biodiversity in carrying out their duties.

10. APPENDIX 2: DETAILED SETT AND FIELD SIGN LOCATION MAP



Key:

- Entrance hole
- Communal latrine
- Dung pit