

ECOLOGICAL ASSESSMENT OF 21 BUCKSHAM AVENUE, NORTH BERSTED, BOGNOR REGIS, WEST SUSSEX, PO21 5DT



SU 918 012

On behalf of VIVID design studio

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SUMMARY

A visit to the site was made on 4th June 2015 by Patricia Vaux *MCIEEM*.

The site is 0.27ha and lies in the suburb of North Bersted in the seaside town of Bognor Regis (central grid reference SU496060). It comprises a bungalow with large garden and is surrounded by new residential housing estates separated by a belt of vegetation and a stream. High bat potential for crevice dwelling bats was identified in the building, good foraging potential for bats across the site, high reptile potential in the boundary ditch scrub, rubble piles and vegetation, potential for hedgehogs around the boundaries, and house sparrows nesting in the building.

As such, the following is recommended:

- Dusk and dawn bat surveys before the end of August to determine absence/presence of bats roosts in the building and bat foraging activity on site to inform appropriate mitigation;
- Clearance/demolition outside of bird nesting season (March-August) or check prior for active nests;
- Vegetation clearance under supervision or with care for potential hedgehogs;
- Reptile mitigation using management and clearance techniques to ensure reptiles are not recklessly injured or killed. Ecologist supervision of erection of erosion guards/fence around ditch boundaries before and after construction works; supervised destructive search of scrub, rubble piles and ruderal vegetation with relocation of animals to adjacent habitat with consent of landowners between April and October (outside of hibernation season); grassland to be walked and disturbed and then cut in strips and kept cut until works commence; removing all cleared vegetation from site and not keeping in piles on site; not storing building materials near the site boundaries and keeping on pallets off the ground;
- Enhancement measures such as landscaping prior to removal of erosion guard, maintaining grassland strip around rear boundary, creating reptile hibernacula and log pile at the rear of the site.

Any further vegetation removal should be undertaken outside of the bird breeding season, which is considered to be March-August inclusive. If this is not possible then vegetation should be carefully inspected to ensure no nests are present before removal and if nests are noted, then removal delayed until all chicks have fledged.

The log and woodchip piles should be cleared and the lawn kept closely mown to ensure the habitat does not become used by common reptile species in the area.

Suggested Ecological Enhancements for the site include:

- Retaining open access and vegetative cover as a wildlife corridor along the western boundary for animals to continue crossing the site.
- Planting any additional landscaping with a locally-sourced native mixed species plants characteristic of the local area and replacing the non-native cherry laurel boundary with native mixed hedging species.
- Any external lighting to be directional (pointing downwards) or capped to avoid light spill.
- Bat boxes incorporated into the external walls of any new dwellings providing potential new roosting habitat.
- Bird nest boxes installed on any retained mature boundary vegetation.

INTRODUCTION

1. In June 2015 Emma Pollard, a licensed (Bat Survey Class 2) and experienced ecologist and full member of the Chartered Institute of Ecology and Environmental Management (CIEEM), was commissioned by Mascot Homes to undertake an ecological assessment of 21 Bucksham Avenue, Bersted in order to proceed with a planning application for 8 houses.
2. The site is 0.27ha and lies in the suburb of North Bersted in the seaside town of Bognor Regis (central grid reference SU 918012). It comprises a bungalow with large garden and is surrounded by new residential housing estates separated to the west by a belt of vegetation and a stream.
3. The site was visited by Patricia Vaux MCIEEM, with permission of the landowner, on 4th June 2015.
4. The aim of this report is to identify the habitats existing on site; determine the ecological value of these habitats; assess the potential of the habitats present to support protected species and note any features of nature conservation interest. This report details the methodologies used, the findings and any recommendations for action. It does not attempt to provide a comprehensive species list for the site.
5. The common name only of flora and fauna species is given in this report however; Latin names are used for species where no common name is available.
6. The advice contained in this report relates primarily to factual survey results and general guidance only. On all legal matters you are advised to take legal advice.
7. The report is confidential to the client and the author accepts no responsibility in respect of any matters outside the scope of the contract with the client.
8. The report remains the property of the author until payment from the client has been received in full.

METHODOLOGIES

Desktop Study

9. The Multi-Agency Geographical Information for the Countryside (MAGIC) website was consulted for information on statutory site designations and EPSL applications in the area.
10. The 'Google Earth' website was accessed for aerial views of the site and used as a visual aid to help put the site into context with its surroundings and to identify any potential features of interest in the surrounding land.
11. Record of non-designated sites, protected species, rare species, BAP species and alien species were requested from Sussex Biodiversity Record Centre. Records do not include Badger or Otter.

Field Study

12. A walkover survey of the site and surrounds was undertaken to identify any habitats likely to be of conservation value. The aim of a walkover survey is to provide a record of habitats that are likely to be ecologically important and the presence, or potential presence, of protected species and species of conservation concern. Features and habitats capable of supporting such species were noted. Features and habitats with potential botanical or protected species interest which may require more detailed survey at specific times of year were also identified.
13. A thorough external and internal examination was undertaken of the building to search for signs of bat use. This included a systematic search of walls, roof slopes, soffits, lead flashing, all window and door surfaces and ledges, any attic spaces including ridge rafters and stored items. Signs of bat used searched for include droppings, foraging signs (such as moth wings), rub marks indicating prolonged use, and bats themselves. The building was also assessed for its' suitability to support bat roosts, such as its' structure and any presence of features such as soffit boxes, barge boards, ridge tiles, missing roof tiles, hanging tiles, dormer windows and any potential bat access points were inspected with a torch where possible and noted. Methodologies followed current best practice guidance such as those outlined within the Bat Surveys – Good Practice Guidelines (Bat Conservation Trust, 2012).

RESULTS

Desktop Study

14. MAGIC informed of no designated sites of EPSL applications within 1km of the site.
15. Sussex Biodiversity Record Centre informed of The Brooks LNR over 1km east of the site and the following species: European Water Vole; 2 bat records one of which was a pipistrelle species; American Mink (invasive alien); 88 Bird species including 6 significant breeding records, 7 W&CA Schedule 1 species, 16 BoCC Red list species and 33 BoCC Amber list species. It also informed the land east of the site is designated Coastal and Floodplain Grazing Marsh which is important habitat for wading birds, vascular plants and invertebrates. The full report is given as a separate document labelled Appendix 1.

Field study

16. The survey results are described below and illustrated in Figure 1. The site comprises a detached vacant bungalow with mown garden bounded by ruderal plants, scrub and tress. There are two small metal storage cabins, piled building material, wooden pallets, rubble piles, log piles and the western boundary comprises a vegetated seasonal wet ditch.
17. The bungalow has been vacant for c1 year. It has rendered brick walls and a concrete flat tiled pitched roof with concrete ridge tiles. The southern aspect is ivy clad. Several low level roof tiles on each aspect were noted to be lifted offering potential bat access. There are overhanging wooden eaves on each aspect also noted to have gaps and crevices in places offering potential bat access. The attic has missing ceiling panels and signs of water damage. It has boarded underfelting and is c2m at the ridge. There is a tight ridge board and thick floor level fibreglass insulation that runs into the eaves. There is a single roof light making the void bright and two areas of missing wooden underfelt where additional roof lights were scheduled to be installed. These have dense cobwebs over the exposed tiles. Most roof timbers have dense cobwebs and ivy ingress was noted through the eaves at the south. House sparrow were noted nesting within the south-western soffit boards. There is a rear flat roofed extended area with asphalt roof with barge boards, rendered walls, and metal and

plastic window and door frames in good condition. Several lifts under the barge boards were noted to offer potential bat access.

18. The garden grass has been strimmed to c30cm height with creeping bent, perennial rye-grass, annual meadow grass, and occasional nettle, cow parsley, daisy and bugle. Towards the south there is also occasional yarrow, nettle, bramble and bindweed mixed into the grassland. Occasional patches of bare ground are scattered amongst the grassland.
19. There are two small metal site storage units/canteens behind the dwelling. There are 7 piles of stored building materials, wooden pallets, rubble and rubbish including corrugated tin sheets and bricks that offer potential refuge for reptile species. Each is 1-3m² and mostly covered with scrub ruderal vegetation including ivy, bindweed, bramble and nettle.
20. A seasonal wet ditch runs along the western boundary with scrub and ruderal vegetation that extends 1-1.5m onto site and offers high reptile and bird nesting potential with nettles, willowherb, bindweed, bramble and hazel. Beyond this is a road and residential dwellings.
21. The southern and eastern boundaries of the southern garden have closed board panel wood fencing of c 2m height. The southern boundary has c0.5-1m wide strip of dense scrub with bramble, thistle, nettles, bindweed, ivy, yarrow ash and field maple saplings, and elder trees. There is a 3m by 1m patch of tall ruderal vegetation along the eastern boundary (toward the south of the site) with nettle, docks, ivy, bindweed and nesting sparrows were noted here.
22. The southern boundary of the site behind the bungalow has 1.5m width strip of tall ruderal species including nettles, cow parsley and ash saplings. Around the east of the building is a tall ruderal mix of Yorkshire fog, cock's-foot, perennial rye-grass, bindweed, nettle and occasional bugle, cow parsley, ivy and field forget-me-not.
23. The north and east of the site is bounded by a metal heras fence to a strip of trees and scrub vegetation and a tarmac footpath. There is an area of hard standing in front of the building and the rest of the boundary has tall ruderal vegetation with docks, bindweed, thistle, perennial rye-grass, nettles, elder, and bramble.
24. The boundary vegetation offers potential for bird species in the area to use for

nesting and foraging, one active sparrow nest was noted in the vegetation.

25. The site offers a dark undisturbed foraging resource for species of bat in the area.

Flora

26. No rare or protected flora was identified on site.
27. No invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 were noted on site.

Bat

28. No evidence of bat use of the buildings was observed. Potential for crevice dwelling species was noted under lifted lower level roof tiles and gaps under barge boards and eaves. The site offers good potential for bat foraging and commuting.

Reptile

29. Potential reptile habitats were noted all around the site with rubble piles and boundary vegetation, in particular along the seasonal wet ditch.

Bird

30. The site boundary vegetation offers potential for bird species in the area to use for nesting and foraging. One active sparrow nest was noted in vegetation on the eastern boundary and one active sparrow nest in the south-west corner of the bungalow.

Other mammal

31. The site boundary vegetation offers potential to support foraging and shelter for hedgehogs.
32. No evidence of Water Vole or Badger was observed on site or in the adjacent stream and bank habitat.

Adjacent Habitats

33. There is a seasonal wet ditch on the western boundary of the site and a road dividing the site with a new residential development beyond to the north. It is directly surrounded to the south by other residential dwellings with associated gardens. To the east beyond the road is an area of grassland designated coastal floodplain, it has been recently planted with small whips along its road-side boundary.

EVALUATION

34. No evidence of use of the site by protected species was observed on site.
35. The building was noted to offer numerous gaps under roof tiles and wooden barge boards and eaves that have potential to support crevice dwelling bat species.
36. The rubble piles and boundary garden vegetation, in particular near the western boundary ditch, offer high potential refugia for common reptile species in the area.
37. The boundary trees and mature shrubs are likely to provide food and shelter for bird species, two active sparrow nests were noted in the building and in scrub vegetation.
38. The boundary vegetation has potential to provide shelter and foraging for hedgehogs.
39. The site has potential to be used by bats for foraging.

LIMITATIONS

40. An assessment of the presence of protected species is based on visual evidence at the time of the survey; apparent suitability of habitats present within the survey area; and experience of the surveyor. The assessment also considers the surrounding land and level of connectivity. It does not take into account possible seasonal differences, or of any species that may take up residence at a later date.
41. Bats roost in a wide variety of sites within buildings, with many species roosting in cracks and crevices, under tiles and within timber beam joints where they are difficult to see. The absence of evidence cannot, therefore, be treated as conclusive evidence that bats are not using the building.

RECOMMENDATIONS

Bat

42. At least two activity surveys should be carried out in the active bat season (May-September) prior to demolition of the building to determine likely presence or absence of crevice dwelling species in the building and level of use of site by foraging bats in the area. One of these should be a dusk emergence and one a dawn re-entry survey. These will inform the need for mitigation and European Protected Species Licensing.

Reptiles

43. The site has the potential to support slow worm and grass snake in the boundary vegetation and on-site rubble piles. These species of reptiles are primarily legally protected under the Wildlife and Countryside Act 1981 (as amended) making it an offence to:
- Intentionally, or recklessly, kill or injure any of the above species;
 - and/or; Sell, or attempt to sell, any part of the species, alive or dead.
44. A presence or likely absence survey is not considered necessary provided the management and clearance techniques detailed in the Reptile Mitigation Strategy below are employed to ensure reptiles are not recklessly injured or killed.

Bird

45. Care should be taken to avoid damage to active birds nest on site during the bird breeding season, which is considered to be March-August inclusive. Any active nests should be left alone for the chicks to fledge before any vegetation removal or demolition.

Ecological Enhancements

46. Retaining the ruderal and scrub vegetation along the western boundary and ditch as a wildlife corridor to allow for animals to continue crossing the site and provide cover and food sources for mammals, insects, birds, bats, amphibians and reptiles.
47. Planting any additional landscaping with a locally-sourced native mixed species hedging plants characteristic of the local area. Suitable tree and shrub species

include hawthorn, rowan, guelder-rose, ash, oak, field maple, and hazel. Use of native species within landscaping schemes provides important foraging habitat for a range of birds and invertebrates, including BAP species such as house sparrow.

48. Any landscaping is done prior to removal of the erosion guard at the rear/side of the site. The site must not use any fertilizers, pesticides or chemicals to facilitate for vegetation growth given the close proximity to the ditch/stream.
49. Any external lighting during and on completion of the proposed works to be directional (pointing downwards) or capped to avoid light spill.
50. Bat boxes incorporated into the external walls of any new dwellings providing potential new roosting habitat. Examples can be seen at: http://www.nhbs.com/bat_boxes_eqcat_421.html
51. Bird nest boxes installed on retained mature boundary vegetation or under the eaves of new buildings. Examples can be seen at http://www.nhbs.com/bird_boxes_eqcat_426.html

REPTILE MITIGATION STRATEGY

- The site's boundary scrub, ruderal vegetation and target noted piles provide the complexity required for reptilian species. These areas provide habitat and shelter sites for reptilian species such as slow worm and or grass snake.
- The ditch boundaries of the site will have erosion guards in place before and during construction works, this guard will act as a barrier and ensure that any movement onto the site by potential reptiles will be restricted. The ecologist will be on site for the erection of this fence to ensure that no harm comes to any potential individuals on the boundary of the site.
- The ruderal and scrub vegetation along the western boundary and ditch will be retained as a wildlife corridor to allow for animals to continue crossing the site and provide cover and food sources for mammals, insects, birds, bats, amphibians and reptiles.
- The scrub, ruderal and targeted piles on-site away from the western boundary, will have a destructive search with the ecologist on site. Should individuals be encountered they will be translocated under ecological supervision to adjacent habitat with the consent of landowners. Any further piles of logs or rubble will also be dismantled with the ecologist present. This is to occur outside the hibernation season (November to March inclusive).
- The grassland areas on site will be kept mown and are to be walked and disturbed before cutting in strips; this will continue until works commence.
- All cleared vegetation will be removed from site and not kept in piles on site.
- All building material will be kept on pallets off the ground during the construction phase. No building material will to be stored near the boundaries of the site.

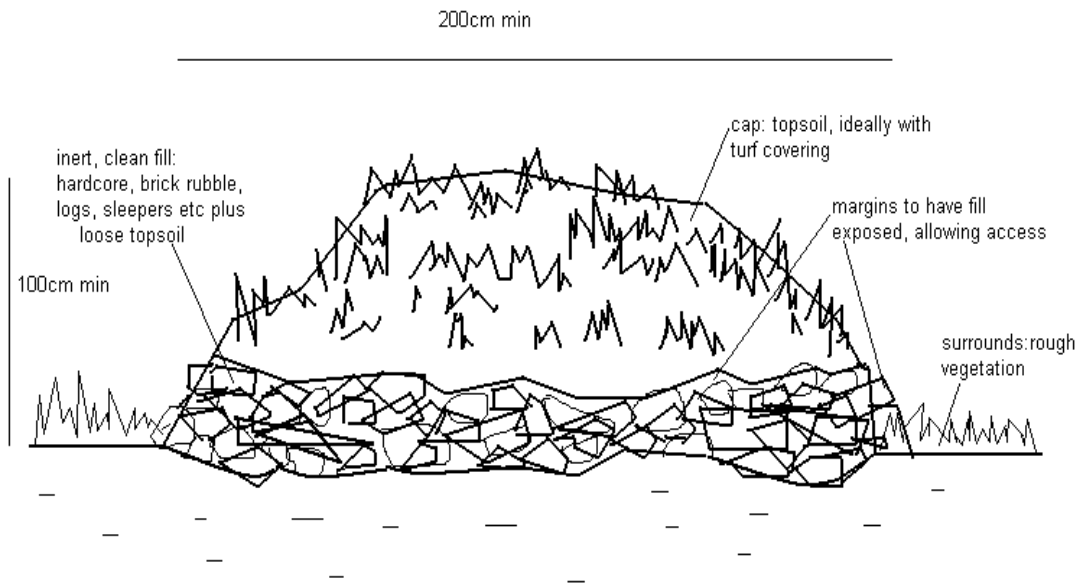
Enhancements to the site:

- Any landscaping will be done prior to removal of the erosion guard at the western side of the site. The site will not use any fertilizers, pesticides or chemicals to facilitate for vegetation growth given the close proximity to the ditch/stream.
- The site will have a purpose built reptile hibernacula placed in the south-west section of the site adjacent to the ditch. This area will be maintained as a reptile

shelter area and will not be disturbed. The area is to have yearly strimming during the active reptile period. Area strimmed to a height of 30mm and disturbed first and in strips.

- It is recommended that a further log pile is placed along the western boundary of the site in the retained wildlife corridor.

Reptile Hibernacula Design



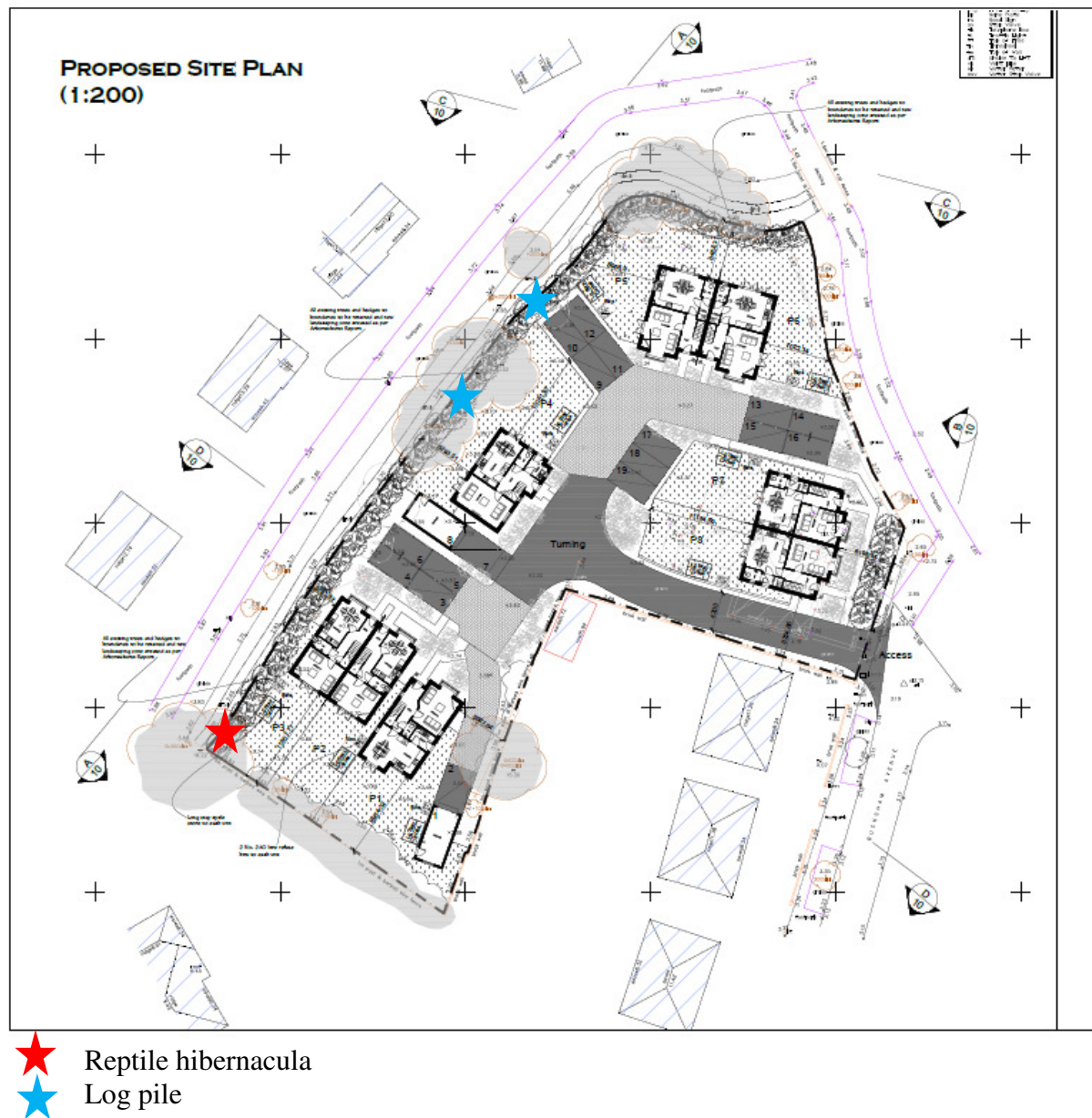
- Not less than 2m length x 1m width x 1m height
- Inert clean fill of hardcore, brick rubble, logs, sleepers
- Covered with topsoil and ideally a turf covering

Example of Log Pile Designs



Mixture of hard and soft woods heaped into a pile

Location of enhancement features



REFERENCES/BIBLIOGRAPHY

HMSO (1981) *Wildlife and Countryside Act 1981 (and subsequent amendments)*.

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Institute of Ecology and Environmental Management (2006) *Guidelines for Ecological Impact Assessment in the United Kingdom* Website – www.ieem.co.uk

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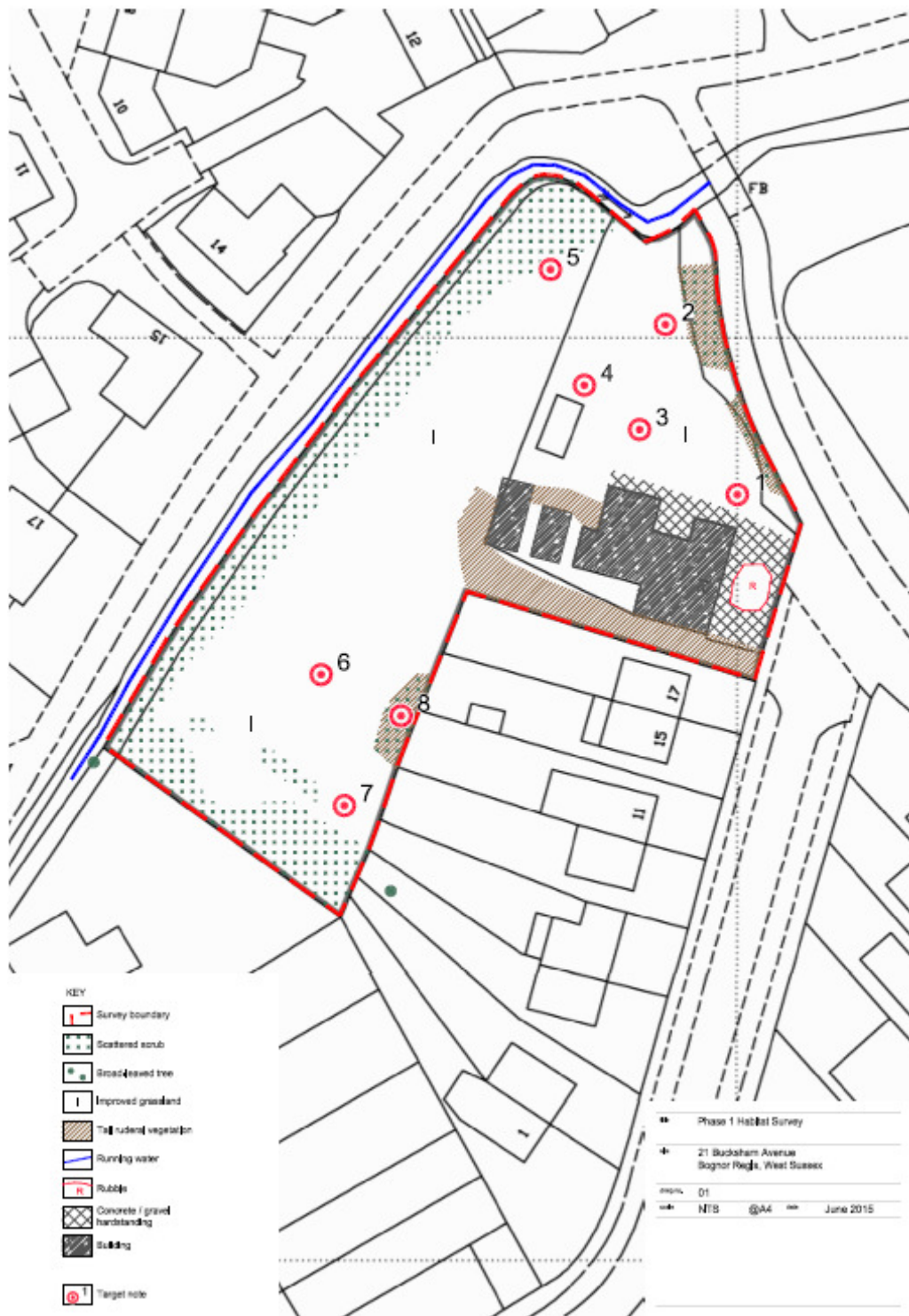
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Mitchell-Jones A.J. & McLeish A.P. (1999) *The Bat Workers' Manual* Joint Nature Conservancy Committee

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FIGURE 1: SURVEY DETAIL



TARGET NOTES:

1. 2m² pallets, cement blocks, bricks
2. 1.5m² construction materials, metal fence guards, pallets, cement blocks
3. Rubble pile including metal tin sheets
4. 2m pile of tree branches covered with bindweed, vetch, dock, nettle, thistle

5. Possible asbestos sheets, logs, bricks covered with scrub ruderals
6. 2m² fence panels covered with bramble, nettles, ivy
7. 2m² rubble pile, brick, cement, branches, bramble, nettle, bindweed
8. Nesting sparrows