



4.0 Survey Results

Bat Activity Surveys - Transects

4.1 5th May 2016

Four species of bats were recorded during the survey. The first bat, a noctule, was heard commuting at 20:52. At 21:08 a common pipistrelle was heard but not seen and then at 21:14 and 21:19, common pipistrelle was seen commuting up and down hedgerow.

Soprano pipistrelle was heard foraging at 21:20. Common pipistrelle was heard commuting at 21:30. Common pipistrelle was heard and seen commuting up and down hedgerow. At 21:33 serotine was heard commuting. Common pipistrelle was heard commuting at 21:37. At 21:42 common pipistrelle was heard commuting faintly. At 21:42 common pipistrelle was heard commuting faintly. Common pipistrelle was heard commuting at 21:43.

4.2 15th June 2016

Two species of bat were recorded within the site; predominantly common pipistrelle and one pass of noctule during the survey. Bats were recorded utilising all peripheries and boundary vegetation of the site. A common pipistrelle was seen commuting along the tree line towards the southern boundary towards the western extent of the site. Two common pipistrelle were seen commuting down the tree line from north to south and back. Common pipistrelle was seen hanging up in the tree halfway down tree line. Common pipistrelle was seen commuting and foraging along the tree line from north to south and then back south to north. A noctule was heard commuting towards the southern extent of the site. Common pipistrelle was seen foraging and commuting along the southern boundary of the site on multiple occasions. Common pipistrelle was seen commuting towards the industrial area and back again along the southern boundary. Common pipistrelle was heard commuting down the tree line running north to south of the site along the eastern extent of the site. The last bat, a common pipistrelle was heard faintly at 23:25, commuting along the northern boundary adjacent to the A2030.

4.3 4th July 2016

One species of bat was recorded during the survey; common pipistrelle. The first bat was heard commuting north to south of the tree line separating the two fields on the eastern extent of the site at 21:42. A common pipistrelle was seen foraging whilst flying westwards along the northern boundary. Common pipistrelle was seen commuting and foraging in the south eastern corner of the site. Common pipistrelle was heard foraging in the south eastern corner along the southern boundary.



Common pipistrelle was seen foraging just east of the industrial area along the southern boundary. Common pipistrelle was heard intermittently along the northern boundary in the centre of the site along the track. Common pipistrelle was heard commuting along the tree line separating the western arable fields of the site. Common pipistrelle was seen commuting and foraging along the southern boundary along the western extent of the site. The last bat, common pipistrelle was seen as well as foraging in the south west corner at 23:15.

4.4 10th October 2016

No bats were recorded during the October activity survey.

Bat Activity Surveys – Automated Detector

4.5 May 2016

Table 6: Automated detector data – May 2016

Date	Species	Number
5 th May	Common pipistrelle Soprano pipistrelle	73 2
6 th May	Common pipistrelle Soprano pipistrelle	10 1
7 th May	Common pipistrelle	10
8 th May	None	0
9 th May	None	0
10 th May	None	0
11 th May	None	0

Bat Emergence Surveys

4.6 15th June 2016

A moderate level of activity was recorded during the survey, although the majority were heard but not seen registrations of common pipistrelle. A single common pipistrelle was recorded at 21:47 (approximately 30 minutes after sunset) flying south from the building. It was not seen by the surveyor to the north and was listed as a possible emergence (although no suitable features were



located at the area it was observed). Following this, two further visits were proposed in order to add further certainty regarding the presence or likely absence of a roost.

4.7 4th July 2016

A low level of activity was recorded, with six passes by common pipistrelles. All were observed foraging around the buildings on site, however none were observed emerging from B04.

4.8 10th October 2016

A low level of activity was recorded, with two passes by serotine (heard not seen) and one by a soprano pipistrelle (approximately 1.5 hours after sunset). No bats were observed emerging from B04 and all recordings were too late (the earliest a serotine 1 hour after sunset) to be likely roosting on site.



5.0 Constraints & Opportunities

5.1 Designated Sites

Farlington Marshes (LNR) is a species rich grazing marsh of international importance for the waders and wildfowl that it supports. Chichester and Langstone Harbour (RAMSAR, SPA and SSSI) lies 145m south of the site, designated for supporting populations of European importance. The site itself, Forty Acre Farm is designated as a SINC for Brent Geese.

5.2 Habitats

The site comprises short stubble arable crops, improved and semi improved short grassland, planted alder trees and scattered ash and elm trees with continuous dense understory scrub.

The habitats identified on site were common and of limited floral value. No priority habitats were identified on site. The proposed development has an opportunity to enhance retained vegetated areas through increasing species diversity and biodiversity value. The open space south of the site will be planted with a species rich mixture and managed as grassland, sown with wildflower seed mixture in the Autumn ready for the following Spring. The open space area will also be enhanced for wildlife with the creation of ponds and scrapes.

Hedgerows will be in-filled with native species and planting of native scattered trees, however with the aim of maintaining the open nature of the site. These enhancements will increase the suitability for wading birds such as curlew and oystercatcher found on site, nesting birds and other species such as bats and invertebrates; as well as providing an aesthetic wildlife area for residents, dog walkers and visitors to the site.

It is recommended that sympathetic, species rich planting is implemented as a part of a wider landscaping scheme in order to increase the suitable post-construction habitat for wildlife. A list of recommended species can be provided on request; locally native species would be preferred although, in this instance, cultivars of native species and other non-native but wildlife friendly trees and shrubs would provide value for wildlife without impacting on the character of the area.

In addition to the open space area, on the eastern extent of the site an area enhanced purely for brent geese will be designated. The brent geese mitigation area will be separated from the development by a species rich native hedgerow screen planted directly adjacent to the edge of the development on the eastern side and the screen will run north to south up to the southern boundary. This species rich native hedgerow will provide foraging and commuting opportunities for bat species



utilising the site. Grassland margins around the edge will be planted with insect friendly species rich grass species to enhance suitability for notable bat species.

The development presents opportunities to enhance the existing open space along the southern boundary of Forty Acre Farm. It is recommended that existing gaps in hedgerows are filled and new areas of scattered trees and scrub are created with native species incorporating berry and seed producing species such as rowan, blackthorn, hawthorn, guelder rose, hazel and field maple would also provide additional nesting, roosting and foraging potential for birds. Areas of scrub buffers and road verges can be enhanced through infilling and sowing appropriate wildflower mixes which will provide seeds and invertebrates as a food source for bats.

5.3 Species

Foraging and commuting bats

Only four species were recorded on site; common pipistrelle, soprano pipistrelle, noctule and serotine. Common pipistrelle was the most commonly recorded species. Using the tables in Section 3.2.4, the foraging and commuting assemblage is assessed as being of District, Local or Parish level, albeit at the lower end of this scale (13 – rarer species, individual bats, no nearby roosts, large field sizes/intensive arable).

Given this assessment, the proposed habitat mitigation and enhancement discussed in 5.2 is considered to represent a significant increase in the suitability of habitats on site for foraging. The south, east and west boundaries of the site will be retained and lighting will be designed to make sure there is no light spill above 1 lux on these habitats. There will therefore be no significant change in the ability of bats to commute across the site.

Roosting Bats

Following the emergence/return surveys completed for B04, no confirmed emergences have been recorded. It is therefore concluded that roosting bats are likely absent from the site. It is recommended that a precautionary check of B04 is completed by a licenced bat worker using an endoscope prior to demolition in order to be sure that bats remain absent from the structure.

Bat boxes will be installed on retained trees to provide roosting opportunities post-development. A total of 10 boxes will be installed at a minimum height of 4m and oriented between south east and south west. These should be Schwegler 2FN or similar.



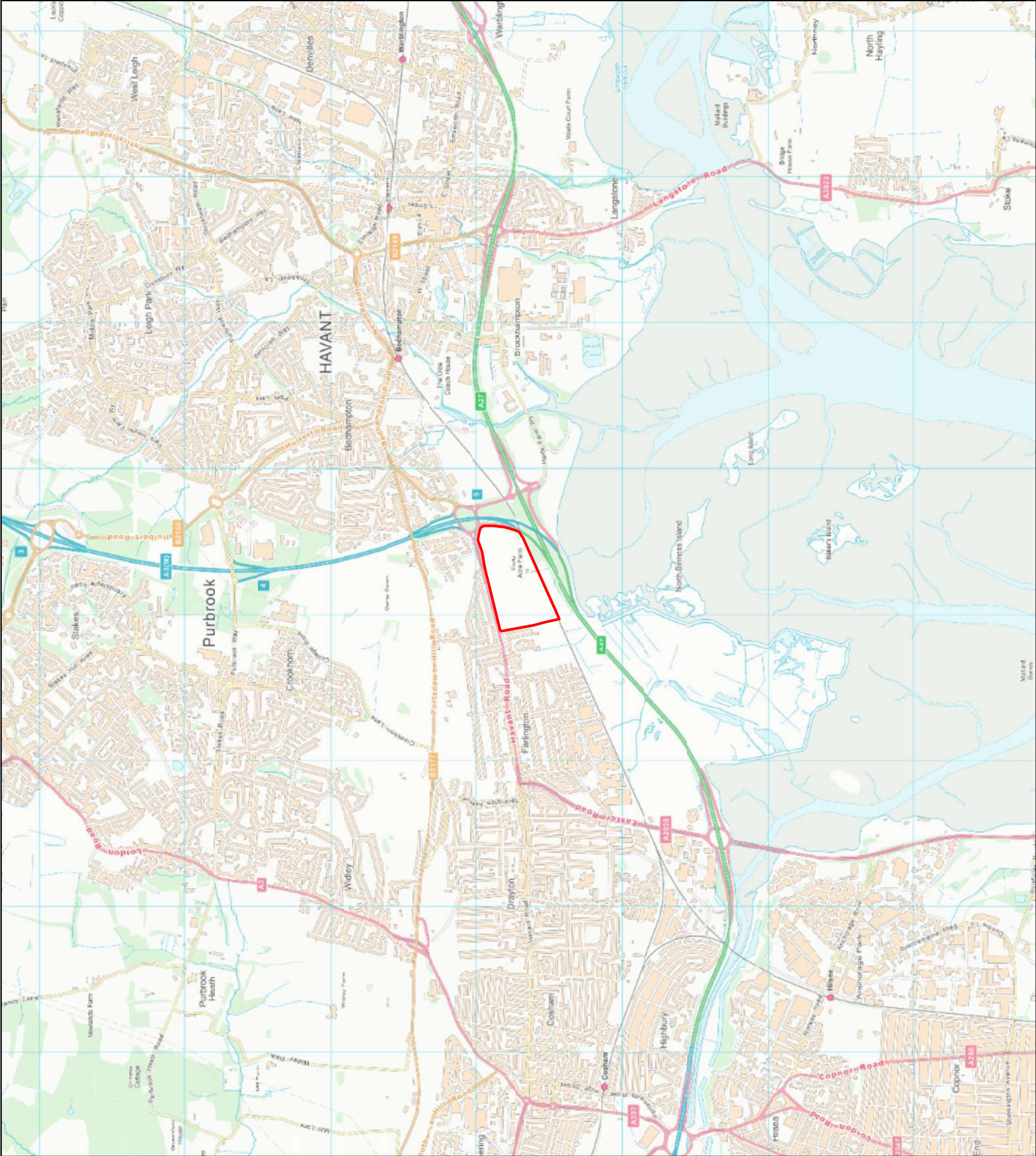
6.0 References

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- HMSO. (1981). *Wildlife and Countryside Act*. www.hmsso.gov.uk
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- WYG (2018). Land at Forty Acre Farm, Havant Road, Havant Extended Phase 1 Habitat Survey.



FIGURES

Figure 1 – Site Location Plan



Rev	Date	Notes
A	27/04/18	Initial map production

Legend

— Site boundary



Site Location Plan

Land at Forty Acre Farm
Barratt David Wilson

Scale at A3: 1:25,000	Project No: A095024	Drawing No: Figure 1	Revision: A
Drawn by: Ben Blowers	Drawn date: 27/04/2018	Approved by: David West	

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