



Urban Fringe Assessment Update 2021

Brighton and Hove City Council

Final Report

Prepared by LUC

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Chapter 1

Introduction

1.1 LUC was appointed by Brighton and Hove City Council (BHCC) in 2014 to assess the potential contribution of 66 urban fringe¹ sites to accommodate residential development. This work was undertaken to assist the council with its examination of City Plan Part One and the specific request from the Planning Inspector to look again at the city's urban fringe sites to help meet the city's housing needs.

1.2 The Urban Fringe Assessment 2014² (hereafter referred to as the UFA 2014) assessed the positive and negative effects of development in selected urban fringe sites and estimated the potential number of homes that each site could accommodate taking account of their identified physical and environmental constraints and the potential for appropriate mitigation measures.

1.3 Paragraph 27 of the Inspector's final examination report concluded:

'I am satisfied that the 2014 Urban Fringe Assessment provides a robust evidence base to guide the strategic level policy in the City Plan Part One. Decisions on whether individual sites should be developed will be made through the process of preparation of the City Plan Part Two or, in advance of that, through the development management process. I am confident that the Plan, as proposed to be modified, will strike the right balance between meeting the need for new housing and retaining open space and will provide an appropriate framework for the allocation of sites in Part Two of the Plan.'³

¹ In the context of Brighton & Hove City Plan, the 'urban fringe' refers to the land between the defined built up area boundary and the South Downs National Park.

² Brighton and Hove Urban Fringe Assessment, LUC (2014)

³ Brighton and Hove City Council City Plan Part 1 Inspector's Report, Laura Graham (2016)

1.4 In 2015 LUC undertook further detailed ecological and/or landscape assessments of previously assessed urban fringe sites and clusters of previously assessed urban fringe sites in a separate linked report (hereafter referred to as UFA 2015)⁴.

1.5 The assessments undertaken in 2015 have informed the preparation of the Brighton and Hove City Plan Part Two. During the Regulation 19 stage of consultation on the Proposed Submission City Plan Part Two in Autumn 2020 the Council received a number of representations which referenced the methodology and findings of the UFA studies undertaken in 2014 and 2015. The representations raised various issues and concerns relating to the UFA work, both in terms of its general methodology and in relation to the study conclusions regarding some specific sites. This addendum report summarises and responds to these representations to aid the examination of the Brighton and Hove City Plan Part Two. The representation summaries and associated responses are covered in the following subsequent sections of this report:

- Chapter 2 addresses how the ‘absolute constraints’ on development were determined and why development was not ruled out on sites with local wildlife designations.
- Chapter 3 addresses how the four sites proposed as suitable for Local Green Space were identified and why other sites were not identified as suitable.
- Chapter 4 explains why LUC considers that the ecology work undertaken for the 2015 UFA is sufficiently detailed to provide confidence that sites identified as having housing potential could be developed. This chapter responds to representations in relation to sites at Benfield Valley, and addresses specific criticisms of ecological judgements made in relation to three of the urban fringe sites located at Whitehawk Hill/Race Hill. It also

⁴ Brighton and Hove: Further Assessment of Urban Fringe Sites – Landscape and Ecological Assessments, LUC (2015)

provides an ecological appraisal for site 16 at Horsdean, where a Local Wildlife Site has been designated since UFA 2015.

- Chapter 5 addresses specific criticisms of landscape judgements made in relation to three of the urban fringe sites located at Whitehawk Hill/Race Hill. It also provides a landscape assessment for site 46a at Saltdean, in response to a representation.
- Chapter 6 provides a brief summary of the key points from each chapter and offers some broad conclusions.

1.6 Table 1.1: Policy H2 Urban Fringe Housing Allocation Numbers sets out the level of housing proposed in the Policy H2 of the Proposed Submission City Plan Part Two and how these housing numbers compare to the recommendations and conclusions in the UFA 2014 and 2015.

Table 1.1: Policy H2 Urban Fringe Housing Allocation Numbers

Urban Fringe Site		UFA 2014 Capacity & Density	UFA 2015 Conclusions	Policy H2 Housing Numbers	Justification for Proposed Allocation
Number	Name				
10, 11 & 12	Benfield Valley	30 (25 dph)	Housing at the suggested density/yield would have significant impacts on landscape in the short term (until new screening planting reaches maturity), however ecological impacts are likely to be mitigable.	100 (Site 11 - 60) (Site 12 - 40)	Indicative housing numbers increased to 100 dwellings following further detailed assessment by the Council in 2017 supported by the ESCC County Landscape Architect and County Ecologist in response to representations from promoters seeking a much larger strategic scale development at Benfield Valley. This concluded that the development areas identified in the UFA could support a higher density of development within the same development footprint (further details in the Benfield Valley Topic Paper published alongside the CPP2 Proposed Submission).
16	Land at & adj Horsdean	30 (25 dph)	Housing can be delivered across some of the Potential Development Area without significant landscape impacts,	25	Indicative housing number reduced to 25 dwellings to reflect the 2015 UFA conclusions.

Urban Fringe Site		UFA 2014 Capacity & Density	UFA 2015 Conclusions	Policy H2 Housing Numbers	Justification for Proposed Allocation
Number	Name				
	Recreation Ground		however vegetated buffers and public access should be retained to reduce the potential for cumulative significant landscape impacts. This is likely to result in a reduction in yield.		
30	Land at & adj Brighton Race Course	150 (75 dph)	Housing can be delivered without significant impacts on landscape and ecology, subject to adjustment of potential development area to avoid areas of higher ground, plus robust mitigation measures & habitat enhancement elsewhere within the Study Area.	30	Indicative housing numbers reduced to 30 dwellings (25 dpa) at the CPP2 Proposed Submission stage. This followed consideration of pre-application proposals put forward in 2018 by Homes for Brighton & Hove (the council's joint venture partnership with the Hyde Group) for a high density development of 200+ affordable homes. Feasibility reports identified issues of financial viability linked to site access and technical difficulties which would require significant structural/engineering works and adjustment of the site boundaries. It is considered that the structural/engineering requirements for a much smaller scale lower

Urban Fringe Site		UFA 2014 Capacity & Density	UFA 2015 Conclusions	Policy H2 Housing Numbers	Justification for Proposed Allocation
Number	Name				
					density development are likely to be less significant and therefore a smaller scheme of 30 dwellings has a more realistic prospect of delivery.
32 & 32a	South Downs Riding School & Reservoir	25 (25 dph)	Housing can be delivered across the potential development area without significant impacts on landscape and ecology subject to some avoidance/mitigation measures, including removal of the open ground adjacent to Bear Road from the development area. This may have an impact on development yield.	15	Indicative housing number reduced to 15 dwellings to reflect the 2015 UFA conclusions (reduction of development area).
33	Warren Road (Ingleside Stables)	30 (25 dph)	Housing can be delivered across the potential development area without significant impacts on landscape subject to specified measures.	30	No change to 2014 UFA figure.

Urban Fringe Site		UFA 2014 Capacity & Density	UFA 2015 Conclusions	Policy H2 Housing Numbers	Justification for Proposed Allocation
Number	Name				
46a	Saltdean former nursery	18 (25 dph)	Housing can be delivered without significant impacts on ecology subject to specified measures.	24	Allocation increased to 24 dwellings at the CPP2 Proposed Submission stage in response to a representation by the landowner seeking an increased housing figure. The increased density of 27 dph reflects the existing housing in the immediate adjacent area.

Chapter 2

Approach to Constraints

Representations Summary

2.1 Representations from Friends of Whitehawk Hill (FOWH)⁵, Sussex Wildlife Trust (SWT)⁶ and some other environmental and amenity groups seek clarity on why development was not ruled out on sites with local wildlife designations (e.g. Local Nature Reserves and Local Wildlife Sites), and the approach to constraints taken in the UFA 2014.

2.2 These representations include criticisms that insufficient weight has been given to protection of these locally designated sites in relation to national planning policy as set out in the National Planning Policy Framework (NPPF), in particular in relation to NPPF paragraphs 170, 171 and 174.

Representations Response

2.3 The UFA 2014 was driven by and undertaken in the context of city's significant shortfall against the city's objectively assessed housing need. The Planning Inspector appointed to examine the City Plan Part One saw this as a significant failure to meet the social dimension of sustainable development. She raised concerns about the Council's earlier assessment of land within the urban fringe, specifically that it had identified 'perceived constraints' without considering whether there were opportunities to mitigate adverse impacts on relatively less constrained sites. During the City Plan Part One examination, the

⁵ Brighton and Hove City Plan Part 2 Submission Stage Consultation Representation by the Friends of Whitehawk Hill, Dr Richard Bickers and David Bangs (2020)

⁶ Brighton and Hove City Plan Part 2 Submission Stage Consultation Representation by the Sussex Wildlife Trust, Jess Price (2020)

Inspector wrote to the council indicating that, in order for the Plan to be found 'sound', the council should rigorously assess all opportunities to meet the unmet housing need. This included a specific direction for the council to undertake a more detailed analysis of the urban fringe sites, noting the importance of balancing all three dimensions – environmental, social and economic – of sustainable development.

2.4 The urban fringe and wider downland of Brighton and Hove is significantly constrained by a complex mix of constraints.

- 40% of the land within the city boundary falls within the South Downs National Park which is outside the City Plan area.
- Within the urban fringe itself, much of the land meets the National Planning Policy Framework's (NPPF) definitions of open space and green infrastructure.
- Large areas of the city are designated for nature conservation, including Special Areas of Conservation, Sites of Special Scientific Interest, Local Nature Reserves, and Local Wildlife Sites, as well as the South Downs Way Ahead Nature Improvement Area.
- Brighton and Hove is a historic city, with heritage assets set within a historic landscape and townscape.
- The Downs are particularly steep in parts of the urban fringe with limited accessibility.
- Other parts of the urban fringe accommodate important infrastructure such as water reservoirs and telecommunications.

2.5 Ruling out development on all urban fringe sites subject to designations or significant development constraints would not have addressed the Inspector's recommendation to look more positively for housing potential and, in doing so, to also look at opportunities to mitigate adverse impacts on relatively less constrained sites. The study therefore sought to make the area of search as wide as possible.

2.6 The list of absolute constraints used to discount urban fringe land as undevelopable was therefore limited to:

- Scheduled Monuments, Special Areas of Conservation, Sites of Special Scientific Interest; and
- other land uses upon which new development would not be suitable, specifically cemeteries and reservoirs.

2.7 For sites subject to these constraints, it was considered that any development for housing would be likely to generate significant adverse effects regardless of the scale or design of development, and that the mitigation measures required would not be appropriate or achievable in practical terms.

2.8 All other designations and known constraints within the study area were considered to have at least some potential for mitigation subject to further site level assessment through the study. These ‘secondary’ constraints included designations or areas sensitive to development, but where development might be able to take place if appropriate mitigation is provided (UFA 2014 paragraph 3.16). The full list of secondary constraints considered in the UFA is set in Appendix 1 of the 2014 report alongside relevant national planning policy and guidance and associated assumptions relating to the potential significance of effects of development both before and after mitigation.

2.9 The UFA 2014 is consistent with the approach to designated sites in the NPPF (para. 170-177), including at paragraphs 170(a), 171 and 174, with reference to the hierarchy of international, national and locally designated sites of importance for landscape and biodiversity.

2.10 In summary, within the context of the Inspector’s recommendations and national planning policy and guidance, the approach to the definition of absolute constraints and the subsequent assessment of the potential to mitigate adverse effects on secondary constraints is considered to be appropriate and reasonable.

Chapter 3

Local Green Spaces

Representations Summary

3.1 Representations from Friends of Whitehawk Hill (FoWH)⁷, other environmental/amenity groups, such as Sussex Wildlife Trust⁸, and local residents argue for the designation of Whitehawk Hill Local Nature Reserve (LNR) and the wider racecourse landscape as a Local Green Space (LGS), making reference to paragraph 100 of the NPPF⁹, which sets out the three criteria that must be met to designate land as a LGS:

- “in reasonably close proximity to the community it serves;
- demonstrably special to a local community and holds a particular local significance, for example because of its beauty, historic significance, recreational value (including as a playing field), tranquillity or richness of its wildlife; and
- local in character and is not an extensive tract of land.”

3.2 FoWH and other consultees consider that insufficient evidence has been presented to justify why the four sites listed in Policy DM38 of the Proposed Submission City Plan Part Two are considerable suitable for LGS designation whereas Whitehawk Hill LNR and the wider racecourse landscape covering portions of Urban Fringe Sites 28, 30, 31, 31a and 31b is not. These representations reference the UFA 2014 and 2015 and subsequent Local Green Space Topic Paper (2019)¹⁰ as the primary sources of evidence.

⁷ Brighton and Hove City Plan Part 2 Submission Stage Consultation Representation by the Friends of Whitehawk Hill, Dr Richard Bickers and David Bangs (2020)

⁸ Brighton and Hove City Plan Part 2 Submission Stage Consultation Representation by the Sussex Wildlife Trust, Jess Price (2020)

⁹ Previously paragraph 77 in the NPPF (2012)

¹⁰ Brighton and Hove Local Green Spaces Topic Paper, Brighton and Hove City Council (2019)

3.3 They seek clarification on the approach used in the 2014 UFA to identify sites/areas now proposed as LGS designations in Policy DM38, and why Whitehawk Hill was not considered to meet these requirements.

Response to Representations

3.4 Recommendations on the potential for designating urban fringe sites as LGS were made based on paragraphs 99-101 of the NPPF (2019), the text of which has not substantively changed since 2014¹¹.

3.5 Paragraph 99 of the NPPF (2019)¹²states:

“Designating land as Local Green Space should be consistent with the local planning of sustainable development and complement investment in sufficient homes, jobs and other essential services. Local Green Spaces should only be designated when a plan is prepared or updated and be capable of enduring beyond the end of the plan period.”

3.6 As noted in Chapter 2 of this report, the UFA was driven by and undertaken in the context of city’s significant shortfall against assessed housing needs.

3.7 In order to fulfil the UFA objective of identifying scope for new LGS and the requirements of the NPPF, an objective professional judgement was made as to which urban fringe sites were considered to be appropriate for designation. This judgement was based on the significance of the full range of issues and assets considered in the UFA: ecology, historic environment, open space and landscape.

3.8 The UFA 2014 states at paragraph 4.12 “The urban fringe sites contain some of the city’s most important ecological habitats, sensitive landscapes and

¹¹ Previously paragraphs 76-78 in the NPPF (2012)

¹² Previously paragraph 76 in the NPPF (2012)

accessible open spaces, including access routes to the South Downs National Park. In assessing their relative sensitivity and value, it has been possible to identify sites with the potential to be considered for designation as 'Local Green Spaces' through the preparation of Part 2 of the City Plan."

3.9 The sites recommended in the UFA for potential designation as LGS were:

- Benfield Valley – sites 10, 11 and 12.
- Three Cornered Copse – site 14.
- Ladies' Mile – sites 17 and 17a.
- Hollingbury Park – part of site 18.

3.10 Paragraph 4.14 of the UFA identifies that "These are the 'green wedges' into the urban area, which act as wildlife corridors and important routes for people wishing to access the South Downs."

3.11 The urban fringe sites covering Whitehawk Hill and associated greenfield land could also be described as together forming an important green wedge fulfilling many of the same functions as the four areas identified above. It is however considerably larger and wider, covering a far more extensive area of land at the urban fringe compared to the urban fringe sites recommended for designation as LGS. Furthermore, there are few clear and robust boundaries marking out possible smaller areas suitable for LGS within the Whitehawk Hill urban fringe sites.

3.12 Paragraph 100 of the NPPF is clear that Local Green Space designation should only be used where the green area concerned is not an extensive tract of land. National Planning Practice Guidance expands on this stating that although 'There are no hard and fast rules about how big a Local Green Space can be because places are different and a degree of judgment will inevitably be needed...blanket designation of open countryside adjacent to settlements will

not be appropriate'¹³. Such judgement was applied in the recommendations for LGS in the UFA 2014.

3.13 It should also be noted that despite being identified as the areas with potential for designation as LGS, all but the smallest of the four areas (Three Cornered Copse at site 14) were found to have some potential for development. Designation of some of the land as LGS therefore should not necessarily be seen to rule out allowing for development on land not designated as LGS (as at Benfield Valley). This is reflected in the site allocations and Local Green Space policy in the City Plan Part Two.

3.14 The more detailed consideration of the ecological, historic, open space and landscape assets that informed these recommendations can be found in Appendix 4 of the UFA containing the individual assessment proforma for each of these urban fringe sites.

3.15 In summary, the sites listed in the 2014 UFA as having potential for designation represents a balanced set of recommendations based on the NPPF guidance on LGS, the presumption in favour of sustainable development at the heart of the NPPF and the Inspector's recommendations. Further consideration was given to the designation of LGS in the Council's Local Green Space Topic Paper.

¹³ Planning Practice Guidance Paragraph: 015 Reference ID: 37-015-20140306 (2014)

Chapter 4

Ecology

Introduction

4.1 This chapter addresses those representations on proposed urban fringe allocation sites which relate to ecology.

4.2 General points raised have been responded to below.

4.3 Specific criticisms of the UFA ecology work relating to three urban fringe sites at Whitehawk Hill/Race Hill were submitted by Friends of Whitehawk Hill (FOWH) (supported by additional biological/ecological evidence from local surveys). Reference was made to LUC's report, Brighton and Hove: Further Assessment of Urban Fringe Sites 2015 - Landscape and Ecological Assessments (the 2015 UFA). These points are addressed in the discussion of each site below.

4.4 In addition, a number of representations have been received from the Sussex Wildlife Trust (SWT), other environmental and amenity groups, and local residents in relation to the sites at Whitehawk Hill/Race Hill and other urban fringe housing allocations which impact local environmental designations (e.g. LNRs and LWSs). These comments raise concerns about the loss and fragmentation of habitats, the impacts of development on wildlife including protected species, and on wider ecological networks and biodiversity.

4.5 Sites which were identified for an ecological assessment in 2021 in response to representations and/or as a result of all or part of the Site having since being designated as Local Wildlife Site, include:

- Site 10 / 11 / 12: Benfield Valley [new survey of Site 10, update of Sites 11 and 12], in response to representations by Benfield Valley Investments

Ltd, and previously by Fairfax Acquisitions Ltd which was supported by a Preliminary Ecological Appraisal (PEA) and Phase 1 Habitat Survey.

- Site 16: Land at and adjoining Horsdean Recreation Ground, Patcham [new survey], following designation of Patcham Court Field Local Wildlife Site (LWS) since 2015.
- Site 30: Land at and adjoining Brighton Race Course [updated survey], following representations by FOWH and SWT.
- Site 32 /32a: Land at South Downs Riding School & Reservoir Site [updated survey], following designation of Bevendean Horse Paddocks LWS since 2015, and representations by FOWH and SWT.
- Site 33: Land north of Warren Road (Ingleside Stables) [new survey], following designation of Bevendean Horse Paddocks LWS since 2015, and representations by FOWH and SWT.

Response to general ecological issues raised in representations

4.6 A response to the questions of how the UFA identified absolute constraints, and why development was not ruled out on sites with local wildlife designations has been provided in Chapter 2 of this report.

4.7 Some representations have questioned whether the ecology work undertaken for the 2015 UFA was sufficiently detailed to provide sufficient confidence that sites identified as having housing potential could be developed whilst providing acceptable levels of ecological mitigation and biodiversity net gains. The ecological assessments undertaken in the 2015 UFA included a Desktop Study and Phase 1 Habitat survey for each site undertaken by a suitably qualified ecologist. This reflects best practice guidance with respect to

the level of ecological information required at the local plan preparation stage¹⁴. More detail on the methods of this assessment are presented below in the 'Methodology' section. The findings of the 2015 surveys and assessments sought to provide a high-level assessment, which identified the potential impacts of development and whether mitigation and enhancement measures could be provided. It can therefore be confirmed that the level of ecological assessment undertaken was sufficient and robust to provide a high-level assessment to inform the allocation of sites as part of the City Plan Part Two.

4.8 Some representations have also questioned whether the UFA ecology work completed in 2015 remains reliable or may now be outdated because it is more than 5 years old. Ecological assessments for the sites outlined above have been updated and have been considered in line with current policy and legislation to address this point.

Ecological Assessment: Methodology

4.9 The methods adopted for the ecological assessments undertaken for the 2021 UFA Update are outlined below. They are in accordance with best practice guidance documents produced by the Chartered Institute of Ecological and Environmental Management and the British Standards Institute.

4.10 The methods outlined have been updated since the previous surveys in 2015 to reflect the changes in legislation and planning policy. Specifically, this assessment has taken into account changes to the National Planning Policy Framework (NPPF, June 2019), which states that *"planning policy should identify and pursue opportunities for securing measurable gains for biodiversity"* and the mandatory requirement for a 10% Biodiversity Net Gain to be achieved which is set out in the forthcoming draft Environment Bill.

¹⁴ Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey - a technique for environmental audit. JNCC, Peterborough

4.11 In addition, the updated ecological assessments have considered the comments that have been provided by the representations received in response to the City Plan Part Two Proposed Submission consultation.

Desktop Study

4.12 Biological records for each site and within a 1km buffer were obtained from the Sussex Biological Records Centre (SBIC) to update the 2015 assessments (data provided on 20th January 2021), and data regarding designated sites was provided by the Council and publicly available sources.

4.13 A review of the following publicly available resources was also undertaken:

- Multi-Agency Geographical Information for the Countryside (MAGIC) to identify statutory designated sites, and notable habitats such as Ancient Woodland.
- Ordnance Survey (OS) mapping.
- Aerial photography.

Phase 1 Habitat Survey

4.14 A Phase 1 Habitat Survey was undertaken by Amy Coleman BSc ACIEEM between the 14th and 18th of January 2021. This included an update survey of sites that were previously subject to ecological assessment in 2015, together with sites not previously assessed which have become subject to local wildlife designations since the 2015 UFA. Surveys were completed in cognisance with current good practice guidance¹⁵.

¹⁵ Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey - a technique for environmental audit. JNCC, Peterborough

4.15 The surveys included the rapid classification of all habitats within the study area, and the identification of dominant or characteristic flora or any notable species. Target notes were recorded, detailing species identified and a description of the habitats where appropriate (for example, signs of management, habitat structure or notable features identified). Field surveys were completed using hand-held survey devices, such as tablets with Phase 1 mapping software installed.

4.16 In addition to the classification of habitats, the survey was extended to include consideration of protected and/or notable species (for example, species of principal importance or local BAP priority species). This included an assessment of habitat suitability as well as recording of any direct evidence noted during the survey, although detailed searches for such species, including notable flora, was not possible within the scope of the study. Current good practice methods¹⁶ were followed when considering the suitability of habitats for species. This also enabled the identification of potential constraints and opportunities for mitigation of the proposed development (see below).

Evaluation and Recommendations

4.17 For each site, a high-level qualitative assessment was undertaken, which considered the ecological value of habitats and species present, including those

¹⁶ Collins, J. (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London
Andrews H. (2018). Bat Roosts in Trees - A Guide to Identification and Assessment for Tree-care and Ecology professionals: Bat Tree Habitat Key. Pelagic Publishing, Exeter
Protection of Badgers Act 1992. Available at:
<https://www.legislation.gov.uk/ukpga/1992/51/contents>
Bright, P., Morris, P. and Mitchell-Jones, A. (2006). The Dormouse Conservation Handbook. Second Edition. English Nature, Peterborough.
Langton, T., Beckett, C. And Foster, J. (2001). Great Crested Newt Conservation Handbook. Froglife, Halesworth.
English Nature (2001). Great Crested Newt Mitigation Guidelines. English Nature, Peterborough.
English Nature (2004). Reptiles: Guidelines for Developers. English Nature, Peterborough.
Chanin, P. (2003). Monitoring the Otter *Lutra lutra*. Conserving Natura 2000 Rivers Monitoring Series No.10. English Nature, Peterborough.
Strachan, R. and Moorhouse, T. (2006). Water Vole Conservation Handbook. Second Edition. Wildlife Conservation Research Unit, Oxford

which contribute to the value of designated sites identified. This approach was based on professional judgement and informed by the desk study and Phase 1 Habitat Survey, which identified constituent extent, condition and types of habitats present. This was undertaken in line with best practice guidance produced by the Chartered Institute of Ecology and Environmental Management¹⁷ and the British Standards Institute¹⁸.

4.18 As part of this evaluation, the assessment considered the likely impacts that would result from proposed development within the identified site allocation areas and the potential significance of these impacts. In accordance with the mitigation hierarchy, this assessment outlines the requirements for avoidance measures as a first option and, where that is not feasible, likely mitigation requirements which may be required to enable development to proceed in accordance with planning policy and nature conservation legislation. This includes consideration of potential further ecological surveys that would be required, including more detailed habitat surveys and protected species surveys, to inform a more detail impact assessment and specific mitigation requirements. For the sites previously surveyed, this assessment builds on and updates the findings of the 2015 UFA surveys.

4.19 In addition to this and in light of changes to legislation and planning policy since the previous assessment in 2015, this evaluation also considers the potential likelihood and scale for proposed development to deliver and achieve Biodiversity Net Gain in accordance with the NPPF (June 2019) and the forthcoming Environment Bill, which will require a mandatory 10% biodiversity net gain to be achieved. This approach was based on professional judgement and experience in relation to Biodiversity Net Gain. Due to the high-level nature of this assessment and the indicative nature of proposed development, this assessment was qualitative and did not include the provision of a specific Biodiversity Net Gain assessment and calculations.

¹⁷ CIEEM (2017). Guidelines for Preliminary Ecological Appraisal. 2nd Edition. Chartered Institute for Ecology and Environmental Management, Winchester.

CIEEM (2015). Guidelines on Ecological Report Writing. Chartered Institute for Ecology and Environmental Management, Winchester

¹⁸ BSI (2013). BS 42020:2013: Biodiversity – code of practice for planning and development. British Standards Institution, Bristol

Limitations

4.20 Whilst every attempt was made to collect accurate baseline data and carry out thorough site assessments, all ecological surveys represent a ‘snapshot’ of activity, and changing habitat conditions, including as a result of seasonal changes in vegetation or levels of habitat management, that may increase or decrease suitability for faunal species. Such changes may also affect the potential to identify plant species, particularly subject to the level of detail of surveys. For example, at certain times of year when species are not flowering, or when management such as grazing is particularly intense, it may be necessary to undertake very detailed surveys (such as National Vegetation Classification surveys) to identify certain plant species. Ecological features are dynamic and often transient, and it is not always possible to confirm the absence of a species through survey. Ecological surveys can generally be considered as being up to date for 1 to 3 years dependent on the nature of the site, ecological baseline, and proposals and likely impact¹⁹. The level of survey undertaken for this study is considered appropriate to meet the information requirements for local plan preparation, but more detailed ecological assessment will be required when development proposals come forward.

4.21 Wherever possible the entire site was accessed for survey. However, this was not always possible given issues such as the presence of fencing or livestock, or locked access. If direct access was not available, areas were viewed as much as possible from adjacent land, with surveys supported by aerial photography. In these cases, the assessments adopted a precautionary approach to ensure that potential issues were considered, ensuring a robust assessment suitable to support this study.

4.22 Surveys were undertaken in January 2021 which is outside of the optimal flowering season between March and September. This was not considered a constraint to the survey findings as it was still possible to identify habitat types in line with best practice guidance¹⁴ to inform a high level assessment of the

¹⁹ CIEEM (2019). Advice Note: On the Lifespan of Ecological Reports and Surveys. Chartered Institute for Ecology and Environmental Management, Winchester

potential impacts of proposed development at each site. More detailed assessments will be required to support specific development proposals or planning applications.

Ecological Assessment: Site Assessment 2021

Sites 10 / 11 / 12: Benfield Valley

Response to comments provided by representations

4.23 A response is provided to each main issue raised by representations relating to ecology. This has been informed by the Benfield Valley Topic Paper (October 2019)²⁰ prepared by the Brighton & Hove City Council to support the City Plan Part Two Proposed Submission (which includes a supporting statement by the East Sussex County Ecologist) and by an updated site assessment, which is detailed below.

4.24 Benfield Valley Investments Ltd comment:

- They consider only parts of the site are of intrinsic ecological importance, whilst other areas have no meaningful ecological value. The greenspace at Benfield Valley has been neglected and much of the grassland is overgrown and subject to encroachment by scrub.
- More housing could be accommodated on the site than the current allocation for 100 dwellings without having greater impact in terms of

²⁰ Benfield Valley Topic Paper (Brighton & Hove City Council, October 2019)

landscape character, heritage or ecology. The area allocated on the Proposals Map could be extended to accommodate 175 dwellings without compromising the function of the LWS and LGS at a development density of c53 dwellings per hectare.

- The developable area north of Hangleton Lane could be extended northwards to the existing east-west hedgerow located to the south of the listed Benfield Barn which marks the southern edge of truly 'open' landscape to the west of the barn. This would maintain the setting of the barn including long distance views from the west at Foredown Tower. The existing footgolf car park and land to the north and east of it would also be retained to provide the southerly setting of the listed barn and Conservation Area. The extended developable area would also retain the existing woodland to the south and west along the site boundaries. Although part of the footgolf course would be affected, there is ample scope for the course to be retained on the land between Hangleton Lane and the A27. The amended development areas would be more legible on the ground and would acknowledge historical and ecological constraints.
- The developable area south of Hangleton Lane could be extended to the south and east without compromising the policy objectives of SA7 and whilst retaining the important woodland boundaries to the north and west.
- These extensions to the developable areas would retain a significant area of green space, footpath access and boundary planting along the eastern side of Benfield Valley extending from the SDNP to the north down to the Old Shoreham Road in the south. The increased development could provide enhancements to the remainder of Benfield Valley by improving public access/recreational uses and links to the SDNP; long term habitat management; and securing high quality restoration/ maintenance works to the historic buildings within the Benfield Barn Conservation Area.

4.25 LUC response:

- Following a review of the arguments and proposed amendments to the site boundaries put forward by Benfield Valley Investments Ltd, it is concluded that the suggested extensions of the proposed housing allocations would result in the loss of increased areas of habitat, including semi-improved

grassland and woodland habitat, which contribute to maintaining the integrity of the LWS and form a key component of the wider ecological corridor within the Site.

- The current proposed housing allocations are considered achievable in principle provided a high-quality scheme is designed and includes appropriate mitigation and enhancement measures. This is likely to be a significant challenge and may require the provision of offsite mitigation and enhancement to ensure the long-term protection and enhancement of Benfield Valley is achieved. The proposed extension to the allocated sites would result in the additional loss of habitats of higher value that maintain the integrity of the LWS and wider ecological corridor, and it is therefore not considered appropriate to further extend the development boundaries or to increase the density of housing.

4.26 Comments by Sussex Wildlife Trust, Benfield Valley Project, Friends of Waterhall and others:

- The development allocation and UFA evidence ignores the local wildlife designation. The site includes valuable habitats (e.g. chalk grassland) which will be lost/ fractured by development. The proposed housing allocation is not compliant with national policy (NPPF Paragraph 174) regarding safeguarding components of local wildlife-rich habitats including locally designated sites of importance for biodiversity. There is insufficient evidence to reach the conclusion that the adverse impacts of development can be satisfactorily mitigated, or that net biodiversity gains can be achieved (as per NPPF Paragraph 170).

4.27 LUC response:

- The assessment undertaken by LUC provides appropriate consideration of the ecological impacts in relation to the LWS and habitats present within the proposed development site.
- In light of the ecological assessment completed for this report, the provision of development at this location is considered to be deliverable provided that it is sensitively designed, and robust mitigation and enhancement measures are provided to secure the protection and

enhancement of Benfield Valley. The indicative amount of housing development set out in the site allocation (100 dwellings across the two allocated sites) may be challenging as proposed development is likely to result in the loss of some habitats of higher ecological value, including woodland and semi-improved grassland habitat, which contribute to the ecological network and forms part of a larger area of grassland that is considered to have calcareous grassland tendencies as described in the Benfield Valley Topic Paper (2019).

- However, it is considered that development of this scale could be achieved through the provision of an exemplary scheme design, which is sensitively designed to focus development in areas of lower ecological value, such as amenity and poor-semi-improved grassland habitat and with the provision of robust and successful mitigation and enhancement measures (onsite and potentially offsite as well). Any scheme proposed will be required to provide demonstrable Biodiversity Net Gain and should also seek to ensure the long-term management and maintenance of Benfield Valley as a whole.

4.28 Sussex Wildlife Trust comment:

- Do not consider that retaining wildlife corridors and buffers around the development will be sufficient to reduce negative impacts of introducing housing within the designated site.

4.29 LUC response:

- LUC have reviewed the assessment in relation to ecology and can confirm that the proposed housing allocation will result in the loss of small proportion of the existing LWS.
- Proposals to deliver housing at this allocation may be challenging but in principle can be achieved through an exemplary scheme design and through the provision of robust mitigation and enhancement (onsite and potentially offsite as well), including appropriate buffers, and will be required to provide demonstrable Biodiversity Net Gain. Any proposed scheme should be sensitively designed focusing development in areas of lower ecological value, such as amenity and poor semi-improved

grassland that comprise much of the site north of Hangleton Lane, whilst retaining habitats which contribute to both the ecological value of the LWS and maintaining valuable woodland corridors within the Site. The proposed development areas may result in the loss of small amounts of semi-improved grassland to the south of Hangleton Lane. Given the size of the proposed development area relative to the overall size of the LWS, it is considered unlikely to diminish the integrity of the LWS and could be mitigated for from an ecological perspective. However, it is recommended that development is sensitively located to minimise the loss of habitats of higher ecological value, such as the woodland and semi-improved grassland habitat.

- In addition, the proposed development site presents the opportunity to provide long term management benefits to Benfield Valley as a whole, which has received relatively little positive management in recent years, through ecological enhancements and creation of habitats of the LWS.

4.30 Woodland Trust comment:

- The boundaries of the proposed housing allocations should be reduced to avoid loss of broadleaf woodland (the northern allocation overlaps approximately half a hectare broadleaf woodland while both sites encroach on the corridor of woodland running north-south). Development is likely to impact the ability of the woodland to support species using and moving through this corridor, therefore a wider buffer is needed.

4.31 LUC response:

- LUC recognises the ecological value of woodland habitat within the identified developable areas and across the wider valley area. Proposed development will need to be sensitively designed to minimise the loss of woodland habitat and maintain the corridor of woodland running north south. Depending upon the form of development this may impact on the scale of housing achievable. Proposals will need to allow for the sensitive location, the layout and design of the proposed scheme and should include appropriate mitigation measures by focusing development in areas of lower ecological value, which support amenity and poor semi-improved

grassland habitat and allow for appropriate buffers to be provided between the retained woodland and proposed development.

- In addition, the proposed development presents the opportunity for Biodiversity Net Gain to be delivered across the wider site and to ensure that retained woodland habitats, which contribute to the value of the LWS and acts as an important wildlife corridor are retained and enhanced.

4.32 Benfield Valley Investments Ltd comment:

- The boundary of the housing allocation south of Hangleton Lane includes an area of existing woodland on its northern boundary which should be excluded from the developable area. The County Ecologist identified the tree belts and boundary habitats as being important in ecological terms and that these should be retained (see para 4.9 of the Benfield Valley Topic Paper).

4.33 LUC response:

- LUC are in agreement with the County Ecologist that any proposed development at this location will require a sensitive scheme design to ensure that ecological corridors and networks are retained within the development boundary and wider area. Development will require robust mitigation and enhancement (both onsite and potentially offsite), including appropriate buffers to ensure that any development proposal can be achieved whilst maintaining the integrity and long-term viability of these ecological features. Any proposed development will also be required to provide demonstrable Biodiversity Net Gain. The scale of development is likely to hinge on the quality and extent of the mitigation and enhancement measures provided. Any proposed scheme should seek to ensure the long-term management and maintenance of Benfield Valley as a whole.

2015 UFA Conclusions and Current Planning Status

4.34 The 2015 UFA included an ecological survey and assessment for Sites 11 and 12 at Benfield Valley as parts of both sites had been identified as having potential for housing development in the 2014 UFA. No further ecological survey or assessment was completed for Site 10 as it was identified as unsuitable for development due to its strategic importance in relation to the ecological corridor. This site was included as part of the ecology survey work in 2021 due to objections being raised regarding part of the LWS being allocated for housing.

4.35 The 2015 UFA concluded that ecological impacts are capable of being mitigated for providing that the following assumptions are applied:

- Incorporation of robust mitigation measures to address any impacts on protected species.
- Habitat enhancement can be assured within the remainder of the Study Area, including within the development.

4.36 Since the 2015 UFA, the council has undertaken further ecology and landscape assessment of Benfield Valley supported by the East Sussex County Council Ecologist and the County Landscape Architect. This work was undertaken in responses to early representations on the City Plan Part Two for Benfield Valley which were proposing much more extensive development involving several hundred homes. The Benfield Valley Topic Paper (October 2019), concludes that the site is not suitable for that scale of development. However, as supported by the County Ecologist, small-scale development could be achieved provided the scheme was designed sensitively and ensured the long-term positive management of the site. The Council's current proposals in the City Plan Part Two provide for around 100 housing units. Based on the ecological assessment undertaken for this report, LUC consider that development can be achieved in principle, however it is likely to be challenging and will require an exemplary scheme to be designed and robust mitigation and Biodiversity Net Gain to be achieved.

Ecological Appraisal

4.37 A summary of the site is presented below. For more detailed information on the baseline habitats and species present reference should be made to Appendix 1 for the site assessment and associated habitat mapping.

4.38 The proposed development area comprises two sites and is situated within the Benfield Valley LWS.

4.39 The Study Area (sites 10, 11 and 12) is comprised of a diverse mosaic of habitats, including woodland, scrub, hedgerow, calcareous grassland, poor semi-improved grassland and amenity grassland, and includes the listed Benfield Barn and a few associated buildings. The proposed development area is comprised of amenity grassland, poor semi-improved grassland, semi-improved grassland, woodland and scrub.

4.40 Potential protected and notable species that may be present in the Study Area include nesting birds, reptiles, badger, bats, dormice invertebrates and hedgehog.

Ecological Avoidance, Mitigation and Enhancement Options

Further surveys

4.41 Detailed development proposals must be informed by an updated Extended Phase 1 Habitat Survey and detailed species surveys to ensure that potential impacts are avoided in the first instance where possible, and appropriate mitigation developed where avoidance is not possible. This would likely include (but not necessarily be restricted to) dormice, reptile, badger and bat surveys, with potential consideration given to invertebrates subject to the detailed design proposals.

Avoidance, Mitigation and Enhancement Options

4.42 The proposed development area is considered appropriate given that it affects a relatively small area of the LWS. This primarily consists of habitats of lower ecological value, such as amenity and poor quality grassland, with small areas of woodland and semi-improved habitat that is considered of higher ecological value. However, design of the housing, including the development footprint and location would need to be subject to a high-quality design, which carefully consider sensitive ecological features, and provides appropriate mitigation and a demonstrable Biodiversity Net Gain. This is likely to be a significant challenge and may require offsite mitigation and enhancement measures to achieve this.

4.43 Potential impacts on the LWS would require mitigation. This would include the enhancement of retained habitats within the site and which contribute to the designation of the LWS. This could include the enhancement of grassland habitats by creating greater structural and floristic diversity and variety of grassland types.

4.44 Additional tree, hedgerow and/or scrub planting around the boundary of the potential development area may also help buffer the LWS from some disturbance (including lighting), whilst providing habitat in its own right and retaining ecological connectivity through the site as mitigation for removal of habitat. This should include elm species to benefit white letter hairstreak, one of the species cited in the LWS designation.

4.45 In addition, best construction practice will need to be assured, as detailed within a Construction and Environmental Management Plan or similar, to avoid contamination and disturbance impacts.

4.46 If notable or protected species are confirmed as present, mitigation requirements may include:

- Timing of works to avoid impacts on nesting birds.

- If bat roosts are found and cannot be retained a suite of suitable mitigation measures would be required including potentially provision of replacement roosts and proceeding with works under a Natural England licence.
- If dormice are identified as present, a suite of suitable mitigation measures would be required including provision of replacement habitat and proceeding with works under a Natural England licence.
- Measures to prevent harm to reptiles, such as translocation from the potential development area to a receptor site which has been suitably enhanced to support the translocated population (ideally within the wider site);
- Measures to prevent impacts on badger including sensitive timing of works in the vicinity of setts (and potentially under Natural England licence) and best practice construction measures.
- Enhancement and creation of habitat outside the potential development area to provide opportunities for species impacted by the proposals, such as invertebrates or notable plant species.
- Sensitive design of any external lighting to minimise light spill to adjacent habitats.
- Sensitive design / measures included to ensure predation by domestic pets does not have an impact on sensitive habitats and species, such as a minimum distance of housing from the sensitive habitat or homeowner contracts preventing pet ownership.
- Other mitigation or enhancement opportunities may include, but are not limited to, incorporation of green infrastructure within the development to provide opportunities for wildlife, such as green roofs or walls, SUDS, wildlife-friendly planting (native species or those providing known benefits to wildlife, such as species of benefit for pollinators), and incorporation of nesting/roosting opportunities for birds and bats.
- Long-term management of habitats should be detailed in a Landscape and Habitat Management Plan or similar, including any newly created as well as retained habitats to ensure long-term viability of such habitats. Any Landscape Habitat Management Plan should also include remedial measures should a decline in habitat quality or quantity be recorded.

Site 16: Land at and adjoining Horsdean Recreation Ground, Patcham

Response to comments provided by representations

4.47 A response is provided to the main issues raised by representations in respect to ecology issues. This has been informed by a site assessment, which is detailed below.

4.48 Comments:

- The site has considerable ecological/ wildlife value which will be lost/adversely affected by development.
- The proposed development of 25 dwellings would destroy about 40% of the Patcham Court Field LWS (BH101) which also adjoins the Braeside Avenue Scrub LWS (BH63). Both LWS's run alongside the A27 to the north with the National Park beyond.

4.49 LUC response:

- This site was not previously subject to ecological assessment in the 2015 UFA although a landscape assessment was carried out as part of that study.
- Following ecological assessment of this site in this study, it is considered that the development area proposed will result in the significant loss of habitat that contributes to the LWS. This would require significant level of mitigation, which is not deemed achievable within the proposed development site and would need to be sought outside of the LWS to provide sufficient mitigation and compensation measures. This is not considered appropriate and therefore the proposed development is not achievable at the current scale and density proposed. Whilst a small

amount of low-density housing (c5 housing units) could feasibly be delivered in the current allocation area, it would require very careful design and mitigation. However, ensuring that there is a measurable Biodiversity Net Gain would be challenging and may require provision of offsite compensation.

2015 UFA Conclusions and Current Planning Status

4.50 The site was not assessed in relation to ecology in UFA 2015. However, since that date, the land proposed as a housing allocation has been designated as part of the Patcham Court Field LWS. As part of the process of designation, an ecological survey of the candidate LWS was undertaken by the Sussex Local Wildlife Sites Initiative in August 2018.

4.51 The landscape assessment in the 2015 UFA suggested a potential development area on the middle and lower slope of the rough grassland to the east of the recreation ground. This area of the site has been proposed as a housing allocation in the City Plan Part Two, and along with the remainder of the site, has been subject to ecological assessment in this study.

Ecological Appraisal

4.52 A summary of the site is presented below. For more detailed information on the baseline habitats and species present reference should be made to Appendix 2 for the site assessment and associated habitat mapping.

4.53 The site is formed of three distinct sections with an allotment to the west, a recreation ground in the centre supporting amenity grassland habitat and an area comprised almost entirely of dense scrub in the east. The eastern part of the site which includes the proposed development area lies within the Patcham Court Field LWS. This is adjacent and connected to Braeside Avenue Scrub LWS, which links to Ladies Mile LNR.

4.54 The proposed development area is predominantly comprised of dense scrub that was intersected with linear network of semi-improved grassland and a small area of scattered scrub in the south.

4.55 Potential protected and notable species that may be present within the Study Area include nesting birds, reptiles, badger, bats, dormouse, invertebrates and hedgehog.

Avoidance, Mitigation and Enhancement Options

4.56 Proposed development at the current scale and density is not considered appropriate. Appendix 2 sets out avoidance, mitigation and enhancement options which would be relevant in the consideration of any smaller development proposal.

Site 30: Land at and adjoining Brighton Race Course

Response to comments provided by representations

4.57 A response is provided to the main issues raised in respect to ecology issues by Friends of Whitehawk Hill (FOWH) and other representations. This has been informed by a site assessment, which is detailed below, and which confirms that there were no significant changes to the site since the 2015 surveys, and the conclusions remain valid.

4.58 Comments:

- The allocation of the site within a statutory Local Nature Reserve (LNR) conflicts with national policy with regard to protection and enhancement of

the natural and local environment. It would conflict with NPPF Paragraph 170 since it would not be possible to achieve net gain to biodiversity due to the damage to the integrity of the LNR caused by development. The allocation is also contrary to NPPF Paragraph 174 as it would not protect or enhance a valued landscape and a designated site supporting habitats of high biodiversity value.

4.59 LUC response:

- LUC recognise the value of the LNR and the concerns that have been raised by FOWH and others. It is agreed that national planning policy requires that locally designated sites should be protected. The justification for the inclusion of locally designated sites within the scope of the UFA is set out in Chapter 2 of this report. It is also accepted that the proposed development may impact to a degree on the functionality of the LNR. However, given the scale and location of development proposed, this could be reduced to a minimum through careful design and provision of high-quality mitigation and enhancement. In addition, any development proposals at this site allocation would require Biodiversity Net Gain to be achieved and demonstrated robustly as part of any planning application for the site. This may require consideration of delivery of habitat enhancements and management elsewhere within the LNR to ensure certainty in the delivery of Biodiversity Net Gain.

4.60 Comment:

- The ecological evidence for the site in the Urban Fringe Assessments is now out of date (over five years old).

4.61 LUC response:

- An updated site assessment was completed in January 2021 to address this comment. The findings of the assessment are detailed below.

4.62 Comment:

- The ecological evidence in the Urban Fringe Assessments 2014 and 2015 undervalues the LNR/LWS designation and is insufficient to justify the conclusions that development has the potential to mitigate any significant negative effects (UFA 2014) and that housing can be delivered without significant impacts on impacts on ecology (UFA 2015).
- The conclusions presented in both UFA studies that impacts on this site can be mitigated is inconsistent with other statements within the same documents.

4.63 LUC response:

- LUC can confirm that an appropriate level of consideration has been given to the value of the LNR and LWS that is proportionate to the level of impacts that may arise from the proposed housing allocation. This is supported by the updated ecological assessment that is presented below.
- Proposals will result in the loss of a small proportion of dense scrub present and will therefore not result in the loss of any habitats for which the LNR and LWS are designated. The proposed development is therefore not considered to result in a significant effect on the integrity of the LNR.

4.64 Comment:

- The evidence in the UFA studies ignores a large body of biological records and other relevant evidence, as well as local knowledge and expertise, that indicate the ecological importance of the site, but were not reviewed during the preparation of the documents.

4.65 LUC response:

- LUC can confirm that an appropriate level of consideration has been given to the value of the LNR and LWS that is proportionate to the level of impacts that may arise from the proposed housing allocation. This is supported by the updated ecological assessment that is presented below.

- LUC consider that the proposed development can be achieved in principle without impacting the integrity of the LNR, including calcareous grassland and key habitats upon which notable species depend. Having said that, it will be crucial that any development proposal provides best practice and high-quality level of mitigation, enhancement and demonstrable biodiversity net gain.

4.66 Comment:

- Although the proposed development site represents a relatively small proportion of the LNR, the allocation would partially sever and fragment the LNR through the loss of semi-natural habitat at the centre of the core part of the reserve between Manor Hill and Warren Road. This would damage the integrity of the LNR and the green corridor, thereby impeding habitat connectivity and wildlife movement.
- In particular, the allocated site will impact on the gorse scrub or its dependent species, which is an historic landscape feature and habitat and important component of the habitat mosaic within the LNR. In addition, the UFA evidence did not consider the potential impact of development/loss of habitat on invertebrates and breeding birds recorded in local surveys of the site/area (which include several S41 Species of Principal Importance).

4.67 LUC response:

- The proposed housing allocation will result in the loss of a small proportion of the LNR that is comprised entirely of dense scrub and which lies immediately adjacent to an area of existing residential development. Given the small extent of the habitat that will be lost and its location within the site, it is not considered that this will result in the fragmentation or severance of habitat within the site.
- The indicative number of housing units proposed in the site allocation has been reduced from 150 to 30 dwellings. This reduction in the scale and density of development will provide more scope for any proposal to be designed in a sensitive manner by focusing development in areas adjacent to the existing residential development and by retaining scrub habitat to along the western boundary of the site as a buffer between the

development and the rest of the LNR. In addition, any proposed development has the potential, if designed suitably, to provide appropriate mitigation measures and deliver Biodiversity Net Gain that could further enhance the ecological features for which the LNR is designated for and secure long-term management gains.

4.68 Comment:

- The ecology evidence presented in the UFA studies contains factual errors and misjudgements which undermine the credibility of the evidence and the UFA conclusions regarding development potential.
 - The Phase 1 Habitat Survey in the 2015 UFA wrongly identifies Areas of Priority Habitat/Habitat of Principal Importance Lowland Calcareous Grassland (Phase 1 Unimproved Calcareous Grassland) as habitats of lower value.
 - The 2014 UFA recommended tree planting as a mitigation measure, whereas the priority in this area is conservation of open habitats.

4.69 LUC response:

- LUC can confirm that the work completed to date appropriately considers the ecological value of the Site and the potential impacts that would arise from the proposed housing allocation at this location.
- The proposed development area is focussed in an area away from key features for which the LNR is designated, including calcareous grassland habitat and key habitats that notable species depend on. LUC consider that in principle, proposed development can be achieved without impacting the integrity of the LNR. Having said that, it is crucial that any development proposal provides best practice and high-quality design in order to deliver mitigation, enhancement and demonstrable Biodiversity Net Gain.

2015 UFA Conclusions and Current Planning Status

4.70 This site was subject to ecology assessment in the 2015 UFA, The 2014 and 2015 UFA studies identified potential for development of 150 dwellings on part of the site, however the proposed allocation has been reduced to 30 dwellings in the City Plan Part Two Proposed Submission. The proposed housing allocation has received objections from local environmental and amenity groups, including FOWH and the SWT, and from a number of local residents.

4.71 In its conclusions, the 2015 UFA considered that housing can be delivered within the allocation without significant impacts on landscape and ecology, on the assumption that:

- Robust mitigation measures are incorporated to address any impacts on protected species.
- Habitat enhancement can be assured elsewhere within the site, including within the development, in particular to create and enhance calcareous grassland.

Ecological Appraisal

4.72 A summary of the site is presented below. For more detailed information on the baseline habitats and species present reference should be made to Appendix 3 which sets out the site assessment and associated habitat mapping.

4.73 Most of the Study Area, including the proposed allocation is located within the Whitehawk Hill LNR and a small area is adjacent to Wilson Avenue is located within Whitehawk LWS.

4.74 The Study Area is comprised of a mosaic of habitats, including grassland, dense and scattered scrub, semi-natural broadleaved woodland and an

allotment with the proposed development area entirely comprised of dense scrub.

4.75 Potential notable and protected species that may be present within the Study Area include nesting birds, reptiles, badger, invertebrates, bats and great crested newt.

Avoidance, Mitigation and Enhancement Options

Further surveys

4.76 Detailed development proposals must be informed by an updated Extended Phase 1 Habitat Survey and detailed species surveys to ensure that potential impacts are identified, and appropriate mitigation developed. This may require detailed surveys for notable plant species, and surveys for birds, great crested newts, reptiles, badger and invertebrates.

4.77 Surveys should also seek to confirm whether Japanese knotweed and other invasive species remain in the site.

Avoidance, Mitigation and Enhancement Options

4.78 In principle, the development proposed at this location can be achieved provided there is careful design and high-quality mitigation, enhancements and demonstratable Biodiversity Net Gains are delivered. This may require the provision of enhancements within the wider LNR to ensure that that Biodiversity Net Gain is deliverable.

4.79 Potential impacts on the LNR, including partial loss, would require mitigation. This would be likely to include the enhancement of retained habitats, in particular to restore and recreate calcareous grassland through scrub control and grassland management regimes. Development proposals may also provide

the opportunity to excavate chalky subsoils to be used to recreate calcareous grassland. The enhancement of habitats should also aim to increase their robustness to any increase in recreational pressure. This could include, for example, improved habitat management as above, and also improving footpaths and interpretation to guide and educate people.

4.80 In addition, best construction practice will need to be assured, as detailed within a Construction and Environmental Management Plan or similar, to avoid contamination and disturbance impacts of retained habitats.

4.81 If Japanese knotweed is confirmed as present, a treatment strategy will need to be developed to ensure the species (included contaminated soil) is not spread. This may include measures to chemically treat plants, and/or to excavate contaminated material for disposal in accordance with best practice guidance.

4.82 If notable or protected species are confirmed as present, mitigation requirements may include:

- Timing of works to avoid impacts on nesting birds.
- Measures to prevent harm to reptiles, such as translocation from the potential development area to a receptor site which has been suitably enhanced to support the translocated population (ideally within the Study Area). If present, similar mitigation measures may be required to address impacts on great crested newts under a Natural England European Protected Species licence.
- Measures to prevent impacts on badger including sensitive timing of works in the vicinity of setts (and potentially under Natural England licence) and best practice construction measures.
- Enhancement of habitat outside the potential development area to provide additional opportunities for species impacted by the proposals, such as invertebrates.
- Sensitive design of any external lighting to minimise light spill to adjacent habitats.

- Sensitive design / measures included to ensure predation by domestic pets does not have an impact on sensitive habitats and species.
- Other mitigation or enhancement opportunities may include the incorporation of green infrastructure within the development to provide opportunities for wildlife, such as green roofs or walls, wildlife-friendly planting (native species or those providing known benefits to wildlife, such as species of benefit for pollinators), and incorporation of nesting/roosting opportunities for birds and bats. Given the nature of the potential development, residential units could be interspersed with landscaping proposals to include calcareous grassland.
- Long-term management of habitats should be detailed in a Landscape and Habitat Management Plan or similar, including any newly created as well as retained habitats to ensure long-term viability of such habitats. The Landscape and Habitat Management Plan should also detail measures to protect, enhance and manage the wider Whitehawk Hill LNR, and should also make provision for remedial measures in the event that a decline in habitat quality or quantity be recorded.

Site 32 / 32a: Land at South Downs Riding School and Reservoir Site

Response to comments provided by representations

4.83 A response is provided to the main issues raised in respect to ecology issues by Friends of Whitehawk Hill (FOWH) and other representations. This has been informed by a site assessment, which is detailed below and confirm that there were no significant changes to the site since the 2015 surveys, and the conclusions remain valid. It should be noted that the proposed development site lies adjacent to the Bevendean Down LNR and Bevendean Horse Paddocks LWS.

4.84 Comment:

- Development will have an adverse impact on the local ecology and on the Whitehawk Hill and Bevendean Down LNRs and their setting.
- The evidence presented in the UFA studies omitted important aspects of the ecology of the site. The structural diversity and rough informality of the existing habitat/land uses (e.g. informal agricultural structures and pasture land with free-ranging horses and grazing livestock etc) has created a rich wildlife assemblage which includes Priority Species/S41 Species of Principal Importance (invertebrates, bats, swifts etc). This would be threatened the loss of habitat/impact resulting from development.

4.85 LUC response:

- The proposed allocation is focussed in areas of low ecological value, including buildings, bare ground and amenity grassland, which do not contribute to the ecological value of the adjacent LNR. The provision of low density housing at this location is considered acceptable given the nature of the habitats present and can be achieved through appropriate mitigation measures to avoid and minimise impacts to the adjacent LNR and to protected species present, as well as provide the opportunity for the proposed scheme to deliver Biodiversity Net Gain and long-term management of both the site and the designated areas. There is potential for housing development to provide benefit for species, such as bats and birds, which may already be present, through the provision of targeted design features.

2015 UFA Conclusions and Current Planning Status

4.86 This site was subject to ecological assessment in the 2015 UFA, however the inclusion of part of the site as a housing allocation in the City Plan Part Two has received objections from FOWH, Sussex Wildlife Trust and other environmental/amenity groups and local residents. In addition, the Bevendean Horse Paddocks LWS has been designated since the 2015 UFA and includes

the northern section of Site 32 (outside but adjacent to the potential development area identified in the 2015 UFA).

4.87 The 2015 assessment concluded that housing can be delivered within the potential development area without significant impacts on landscape and ecology, on the assumption that:

- Development includes planting and green infrastructure.
- The open ground adjacent to Bear Road is removed from the potential development area.

Ecological Appraisal

4.88 A summary of the site is presented below. For more detailed information on the baseline habitats and species present reference should be made to Appendix 4 for the site assessment and associated habitat mapping.

4.89 The northern part of the Study Area lies within the Bevendean Down LNR, and Bevendean Horse Paddocks LWS with the proposed development area itself lying outside but adjacent to both of these designated areas.

4.90 The Study Area is comprised of grassland habitats with smaller areas of dense scrub, bare ground, tall ruderal vegetation and buildings. The proposed development area itself is comprised of habitats of low ecological value, including buildings, bare ground and amenity grassland.

4.91 Potential protected and notable species that may be present within the Study area include nesting birds, reptiles and bats.

Avoidance, Mitigation and Enhancement Options

Further surveys

4.92 Detailed development proposals must be informed by an updated Extended Phase 1 Habitat Survey and detailed protected species survey in relation to bats and nesting birds to ensure that potential impacts are identified, and appropriate mitigation developed.

Avoidance, Mitigation and Enhancement Options

4.93 There is potential for the habitats within the proposed development area to support bat roosts. However, due to the nature of the habitats likely to be affected by development, any impacts would be restricted to buildings only and would not affect roosting bats using the surrounding habitats. Therefore, there is a high degree of confidence that any proposed scheme can mitigate for the loss of any roosts through measures, such as the provision of replacement roosts, sensitive timing of works and exclusion of bats from roosts prior to demolition, and that the scheme has the ability to provide benefit to these bat species. Mitigation works would need to be undertaken under a Natural England European Protected Species licence.

4.94 There is potential for the proposed development area to support nesting bird species, such as swifts, swallows and barn owl. The proposed scheme can mitigate for the loss of habitat for these species through appropriate measures, such as sensitive timing of works and under an ecological watching brief. It is also achievable for any proposed development to provide targeted enhancement measures to provide benefit for these bird species.

4.95 Measures to prevent harm to reptiles (if present), such as translocation from the potential development area to a receptor site which has been suitably enhanced to support the translocated population (ideally within the Study Area). Similar mitigation measures may be required to address impacts on great

crested newts if present, under a Natural England European Protected Species licence.

4.96 Demolition works may need to consider the potential for nesting birds, with works timed to avoid impacts on nesting birds.

4.97 Development at this location to facilitate ecological enhancement and management of habitats in the wider area, for example with financial contributions to support the enhanced management of habitats in the north of the site, within the designated LNR and LWS.

4.98 In addition, best construction practice will need to be assured, as detailed within a Construction and Environmental Management Plan or similar, to avoid contamination and disturbance impacts of retained habitats.

4.99 Measures to prevent impacts on badger including sensitive timing of works in the vicinity of setts (and potentially under Natural England licence) and best practice construction measures.

4.100 Enhancement of habitat outside the potential development area to provide additional opportunities for species impacted by the proposals, such as invertebrates.

4.101 Sensitive design of any external lighting to minimise light spill to adjacent habitats

4.102 Long-term management of habitats should be detailed in a Landscape and Habitat Management Plan or similar, including any newly created as well as retained habitats to ensure long-term viability of such habitats. The Landscape Habitat Management Plan should also detail measures to protect, enhance and manage the wider Bevendean Down LNR and Bevendean Horse Paddocks LWS, and should also make provision for remedial measures in the event that a decline in habitat quality or quantity be recorded.

Site 33: Land north of Warren Road (Ingleside Stables)

Response to comments from representations

4.103 A response is provided to the main issues raised in respect to ecology issues by Friends of Whitehawk Hill (FOWH) and other representations. This has been informed by a site assessment, which is detailed below.

4.104 Comment:

- Development will have an adverse impact on the local ecology and on the Whitehawk Hill and Bevendean Down LNRs and their setting. Around 50% of the proposed development area would be within the Bevendean Horse Paddocks LWS (BH86). Land designated as a LWS should be safeguarded under NPPF Paragraph 174.
- Consider the evidence presented in the UFA studies omitted important aspects of the ecology of the site. The structural diversity and rough informality of the existing habitat/land uses (e.g. informal agricultural structures and pasture land with free-ranging horses and grazing livestock etc) has created a rich wildlife assemblage which includes Priority Species/S41 Species of Principal Importance (invertebrates, bats, swifts etc). This would be threatened the loss of habitat/impact resulting from development.

4.105 LUC response:

- The proposed housing allocation is located in an area that is primarily comprised of an existing developed footprint with buildings, including stables and a section of poor-semi-improved grassland in the west, which lies within the LWS.
- Proposed development has the potential to result in the loss of a small area of poor semi-improved grassland habitat within the LWS. This habitat

is not a key feature of the LWS and therefore is considered to be an appropriate location for development. However, it is advised that any proposed development is primarily focussed within the existing developed footprint to avoid the dissection of grassland habitat within the site. It is also considered important to ensure that the scheme is sensitively designed to minimise any ecological impacts.

- In addition, development will present the opportunity for Biodiversity Net Gain to be delivered in areas of grassland habitat, which are considered of lower value by improving structure and floristic diversity, and to ensure the long-term delivery of net gains.
- It would be expected that any proposed development would be able to mitigate and provide benefit for any species affected, such as bats, birds and amphibians through the replacement of features, which could be incorporated into the development design. This could include the provision of nesting and roosting structures, and the provision of ponds within any proposed scheme.

2015 UFA Conclusions and Current Planning Status

4.106 This site was not subject to ecological assessment in the 2015 UFA. It has been surveyed in response to representations by FOWH, Sussex Wildlife Trust, and other environmental/amenity groups and local residents. The Bevendean Horse Paddocks LWS, which has been designated since the 2015 UFA, now extends across the western and northern parts of the site, including the western part of the potential development area identified in the 2015 UFA.

Ecological Appraisal

4.107 A summary of the site is presented below. For more detailed information on the baseline habitats and species present reference should be made to Appendix 5 for the site assessment and associated habitat mapping.

4.108 Most of the Study Area falls within the Bevendean Down LNR and Bevendean Horse Paddocks LWS. The proposed development site itself lies partly within the LWS and is adjacent to the LNR.

4.109 The Study Area is comprised of poor semi-improved grassland with smaller areas of semi-natural broadleaved woodland, amenity grassland, bare ground and building. The proposed development area is comprised of buildings and a section of poor semi-improved grassland.

4.110 Potential protected and notable species that may present within the Study Area include nesting birds and bats.

Avoidance, Mitigation and Enhancement Options

Further surveys

4.111 Detailed development proposals must be informed by an updated Extended Phase 1 Habitat Survey and detailed protected species survey to ensure that potential impacts are identified, and appropriate mitigation developed. Detailed protected species surveys will include, but not necessarily limited to bats, badger and reptiles.

Avoidance, Mitigation and Enhancement Options

4.112 The allocated site comprises a relatively small area of the LWS, with other parts of the LWS being of higher ecological value, comprising grassland with a higher floristic diversity and areas of habitat such as scrub and woodland which have potential to support protected and notable species.

4.113 Mitigation would be required for the partial loss of habitat and area of the LWS, and also contributions to the enhancement of retained habitats and

provision of Biodiversity Net Gain to deliver significant enhancements secured through long term management of the site.

4.114 Mitigation and enhancement opportunities for this site could include, but are not limited to:

- Long-term management of habitats should be detailed in a Landscape and Habitat Management Plan or similar, including any newly created as well as retained habitats to ensure long-term viability of such habitats. Any Landscape Habitat Management Plan should also include remedial measures should a decline in habitat quality or quantity be recorded.
- Sustainable development, such as carbon neutral housing which also provides opportunities for protected species including green roofs, green walls and SUDS.
- Interpretation boards and education opportunities to ensure residents understand the importance of protecting sensitive habitats and species, in particular those within the adjacent LNR and LWS.
- Best construction practice will need to be assured, as detailed within a Construction and Environmental Management Plan or similar, to avoid contamination and disturbance impacts.
- Other mitigation or enhancement opportunities may include incorporation of green infrastructure within the development to provide opportunities for wildlife, such as green roofs or walls, SUDS, wildlife-friendly planting (native species or those providing known benefits to wildlife, such as species of benefit for pollinators), and incorporation of nesting/roosting opportunities for birds and bats.

4.115 If notable or protected species are confirmed as present, mitigation requirements may include:

- Timing of works to avoid impacts on nesting birds.
- If bat roosts are found and cannot be retained a suite of suitable mitigation measures would be required including potentially provision of replacement roosts and proceeding with works under a Natural England licence.

- If dormouse is present a suite of suitable mitigation measures would be required, including habitat creation elsewhere, and works to proceed under Natural England licence.
- If great crested newts are present (in terrestrial phase only) a suite of suitable mitigation measures would be required, including habitat creation elsewhere, and works to proceed under Natural England licence.
- Measures to prevent harm to reptiles, such as translocation from the potential development area to a receptor site which has been suitably enhanced to support the translocated population (ideally within the wider site).
- Measures to prevent impacts on badger including sensitive timing of works in the vicinity of setts (and potentially under Natural England licence) and best practice construction measures.
- Enhancement of habitat outside the potential development area to provide opportunities for species impacted by the proposals, such as invertebrates or notable plant species. In particular those cited within the LNR and LWS designations which lie adjacent.
- Sensitive design of any external lighting to minimise light spill to adjacent habitats.
- Provision of ponds to provide suitable habitat for amphibians, such as frogs.
- Provision of nesting structures for target species, such as swifts and swallows.
- Species specific measures to be incorporated into LHMPs created for the development, and to have due consideration in the design of any housing (including suggested enhancement options such as green roofs for example).

Chapter 5

Landscape

5.1 This chapter addresses those comments on proposed urban fringe allocation sites in the vicinity of Whitehawk/Race Hill received in the detailed representation from FoWH that pertain to landscape sensitivity. This analysis makes reference to the 2015 UFA and has been supported by an additional site visit, made on 18 January 2021.

5.2 This chapter also provides a landscape sensitivity assessment of urban fringe Site 46a – the former nursery on Saltdean Vale – carried out in accordance with the methodology used for the 2015 assessments and also supported by a site visit on 18 January 2021.

Value of the Racecourse Landscape

5.3 The FoWH representation discusses the value of the 'Racecourse Landscape'. LUC wholly concur that this landscape as a whole is physically distinctive and recreationally and culturally important, and the 2015 UFA reflects this, noting the distinctiveness of the landform, its role as a setting for urban areas and for the South Downs National Park (SDNP), the elevated viewpoints and its historic and cultural sensitivity. In our view, the key consideration is the extent to which the specific areas in question, for which development is proposed, share the sensitivities of the wider Racecourse Landscape.

Response to comments on Site 30: Land at and adjoining Brighton Race Course

5.4 A response is provided to each point made in the FoWH representation. Cross references to photos within the FoWH representation are not included.

5.5 FoWH comment: “The evidence in the Urban Fringe Assessments in relation to landscape is framed almost wholly in terms of impacts of development on the National Park’s setting and views, and did not properly consider such effects within the local visual catchment (i.e. within and adjoining the LNR), for example of views along Whitehawk Hill from the south and north, as well as from the valley below.” (Paragraph 4.2.20)

5.6 LUC response: The NPPF places great weight on conserving and enhancing landscape and scenic beauty in National Parks, and this extends to considering proposals that might have an impact on their setting. National Planning Policy Guidance (NPPG) states that: “Land within the setting of these areas often makes an important contribution to maintaining their natural beauty, and where poorly located or designed development can do significant harm. This is especially the case where long views from or to the designated landscape are identified as important, or where the landscape character of land within and adjoining the designated area is complementary. Development within the settings of these areas will therefore need sensitive handling that takes these potential impacts into account.” (Paragraph 041 Reference ID 8-041-20190721)

5.7 Policy SA5 (The Setting of the South Downs National Park) in the City Plan Part One, reflects this requirement for the setting of the National Park to be respected.

5.8 It was therefore important that the UFA assessment should comment on any potential impact on the SDNP. However, the assessment methodology (2015 UFA page 4) also recognised the importance of urban fringe sites in forming a

setting to urban areas, providing analysis under the heading 'Settlement setting' as well as 'SDNP setting'. A separate section considered the impact on 'Visual receptors', and this specifically stated that "the most important visual receptors are recreational users of the ridge top bridleway and open access land which surround Whitehawk on three sides".

5.9 FoWH comment: "The significant adverse effect of the existing tower blocks was minimised and used as a justification for further damaging development... There is no recognition of the impact these blocks have more locally within the enclosing ridgeline". (Paragraph 4.2.21)

5.10 LUC response: The adverse impact of existing blocks on the landscape as it existed prior to their construction was not the subject of the assessment. However, our study recognised that the scale of existing development in this area does, in terms of landscape character, reduce sensitivity to further development. The presence of these buildings has an impact on both settlement form and local community views, so there is less sensitivity to such development than would be the case in a location where existing development was all of a smaller scale. The blocks are at higher end of the coombe and do form a significant element in the setting of adjacent development, but frequent glimpsed views to higher ground, and southward to the sea, reduce the sense of urban containment locally.

5.11 FoWH comment: "Nevertheless, although the existing tower blocks do impinge upon Whitehawk Hill and its views, an uninterrupted sweep of the hill remains intact and important views are in many places currently uninterrupted. This would be lost if the allocation were to be developed". (Paragraph 4.2.22)

5.12 FoWH comment: "The Urban Fringe Assessment's identification of this site's suitability for development appears to rest very largely on the presence of the existing tower blocks. Further, they go on to suggest that similar buildings be delivered within the site. This not only fails to recognise the adverse landscape impact of the existing blocks, but also the devastating effect further such development would have within the LNR." (Paragraph 4.2.23)

5.13 LUC response: As the above quotes recognise, existing development has an adverse visual impact. The issue is the extent to which the proposed development would have additional detriment. The detail of any development proposals is key in this respect. The 2015 conclusions on ‘Potential level of landscape effect’ noted the importance of not exceeding the elevation of the existing highest buildings, but also of avoiding development that would be too small in comparison. The section on ‘Avoidance, mitigation and enhancement options’ indicated a need to maintain the same spacing as existing blocks, to avoid creating a ‘wall’ of tall buildings.

5.14 Having revisited the site and looked in detail at the relationship between the proposed development site, the existing blocks and views from the rest of Whitehawk and the surrounding high ground, we stand by our opinion that there is potential for development without significant adverse landscape impact. The reduction of the housing allocation from an original figure of 150 dwellings in the 2014 UFA to 30 dwellings in the Proposed Submission City Plan Part Two assists in this respect, although the margins are still fine. Any specific proposals would need to be carefully considered through a detailed Landscape and Visual Impact Assessment (LVIA). Careful consideration would need to be given to design and materials as well as to precise locations and massing.

5.15 We would suggest that there is not a black and white situation where current development preserves “an uninterrupted sweep of the hill” and any new development would have a “devastating effect”. From most directions of view, new development would have the potential to be seen as fitting in with existing structures, and not constituting significantly greater encroachment on the sides of the coombe than is currently the case.

5.16 However, we do recognise that in views from the south west – from the slopes of Whitehawk Hill – Haybourne Road forms an edge to the west of which there is no built development, and it will be important that any new development maintains a strong enclosing belt of scrub to minimise any sense of new buildings climbing up the side of the hill. Locating new buildings as low on the slope as possible and we indicated in the 2015 UFA, ensuring that the top level of any new buildings does not exceed that of the existing towers, would help to maintain the sense of enclosure by higher ground. The reduced allocation of 30

dwelling offers greater potential to minimise landscape and visual impact than the figure of 150 that was originally proposed.

5.17 FoWH comment: “The evidence in the Urban Fringe Assessments did not recognise that development would result in the intrusion of a residential landscape into an area with a strong sense of naturalness. Such an intrusion would inevitably have a significant adverse effect on landscape character in and around the allocation and the impact this would have on people’s experience of this part of the reserve, including as part of an important gateway to the South Downs National Park.” (Paragraph 4.2.24)

5.18 LUC response: In our view, existing urban development is a strong presence for those experiencing the landscape from within the proposed development area, which already has a significant impact on sense of naturalness. It is the views of the wider landscape, including the sea and the SDNP, that offer a stronger sense of being ‘above’ the urban areas, particularly from locations where landform hides the existing built form of Whitehawk from view. The scrub on the slopes is important in retaining naturalness, from a landscape as well as an ecological viewpoint, so minimising its loss, and maximising its potential for visual screening, would be important.

Response to comments on Sites 32/32a (Land at South Downs Rising School & Reservoir Site) and 33 (Land north of Warren Road – Ingleside Stables)

5.19 A response is provided to each point made in the FoWH representation. Cross references to photos within the FoWH representation are not included.

5.20 FoWH comment: “The evidence in relation to the landscape impact of development of these sites in the Urban Fringe Assessments was inadequate.

The sites are in sensitive elevated locations on or close to the top of an open ridge-top and adjacent to the National Park boundary. Development of these sites would have a significant adverse impact on landscape character, eroding the green gap between Brighton (at the top of Bear Road and Elm Grove) and Woodingdean, and between Bevendean and Whitehawk. The South Downs National Park Local Plan (Strategic Policy SD4: Landscape Character) states ‘Development proposals will only be permitted where they conserve and enhance landscape character by demonstrating that: ... 3. The settlement pattern and individual identity of settlements and the integrity of predominantly open and undeveloped land between settlements will not be undermined.’” (Paragraph 4.3.6)

5.21 FoWH comment: “The landscape within the immediately adjoining National Park has been characterised as ‘Open Downland’. Its features include ‘Large scale open elevated landscape of rolling chalk downland, with dry valleys and scarp slopes’ and ‘Sparse settlement, with occasional isolated farms and barns’. Although the sites lie just outside the National Park, insertion of these residential developments into this landscape would erode its character and adversely impact the setting of the National Park. The City Plan Part One (SA5: The Setting of the South Downs National Park) states ‘Proposals within the setting of the National Park must have regard to the impact on the National Park. ... Development within the setting of the National Park: ... must respect and not significantly harm the National Park and its setting.’” (Paragraph 4.3.7)

5.22 LUC response: Although both Site 32/32a and Site 33 lie close to existing urban development (the Bellevue Cottages and houses on the edge of Woodingdean respectively), the distinction between them and the mostly lower-lying urban areas, and their consequent prominence in views from the SDNP, was recognised in the 2015 UFA. Our conclusions were that the character and visual prominence of new buildings would be the key consideration, and that any development which could be considered to represent a suburbanising influence could have a significant adverse impact on landscape character. To assist with avoiding this we suggested using existing and new planting to break up the massing of any new buildings. For Site 33 we also noted that any new buildings should retain the existing farmstead character.

5.23 Our views following the latest site visit on 18 January 2021 are unchanged: new development proposals would need to avoid affecting character, density or massing in a way that has a suburbanising influence. It will be important for any development proposals to be able to demonstrate, through detailed Landscape and Visual Impact Assessment (LVIA), that potential significant impacts can be avoided.

5.24 FoWH comment: “Loss of the existing farmsteads/buildings to housing will create knock-on pressures for new replacement buildings within this landscape/green gap, because the residual ‘bare land holdings’ (lacking buildings) will require such infrastructure in order to function.” (Paragraph 4.3.8)

5.25 FoWH comment: “Allocation and development of these two sites would set a dangerous precedent for further development in this downland ridge green gap, (between Brighton and Woodingdean, and between the National Park and the Bevendean Down and Whitehawk Hill LNRs), which would further erode it’s integrity and character.” (Paragraph 4.3.9)

5.26 LUC response: The scope of LUC’s assessment did not encompass consideration of knock-on pressures for future development, but the Council would be under no obligation to permit development on other sites that currently lack any development. Our assessment noted the need for development to remain focussed in the small potential development areas that have been defined, and beyond these locations landscape sensitivity within the green gap between central Brighton, Bevendean, Whitehawk and Woodingdean would certainly be greater.

5.27 FoWH comment: “Effects on views were not fully considered in the Urban Fringe Assessments. For example, whilst it is true that parts of the allocation at Site 33 Land north of Warren Road (Ingleside Stables) are screened by existing woodland from some directions, the western part of the site is on greenfield land immediately to the north of a well-used path/track forming part of the gateway to the National Park from the eastern part of Brighton. Development of this site would obscure and/or significantly negatively impact important and valued views north and north westwards from this track and from Warren Road, to the wider

National Park. Neither of these impacts were recognised or assessed in the Urban Fringe Assessments.” (Paragraph 4.3.10)

5.28 LUC response: It is accepted that there would be some adverse visual impact for users of the track alongside Warren Road, and from Warren Road, but the level of impact would not be high because similar views towards the South Downs are available along other nearby sections of the road and track. There is not a clear point that can be considered a gateway between Brighton and the SDNP but rather a transition, with the visible presence of the urban edge at Woodingdean, and in the valley below at Bevendean, contributing to the sense that the site does not lie beyond any clear urban/rural boundary. Nonetheless, the fact that the sites in question have a degree of distinction from these urban areas was recognised in the 2015 UFA.

5.29 Taking into account the slope of the site away from Warren Road, and the requirement to avoid too much density/massing, we would anticipate that any proposed development would retain some glimpsed views over/through to high ground beyond. This would also help to avoid a high level of visual impact.

Assessment of Site 46a: Land at former nursery, Saltdean

5.30 The Council have requested a landscape assessment of this site, which was not subject to landscape assessment in the 2015 UFA, in response to a representation by the landowner seeking a higher density/level of housing on the land proposed for allocation.

5.31 The methodology used to undertake the assessment is the same as was employed in 2015, as detailed in Chapter 2 of that report (although accessibility guidelines prevent the outputs from being presented in the same format). This included a site visit, carried out on 18 January 2021.

Representative views – local area

Figure 5.1: Site location – local area

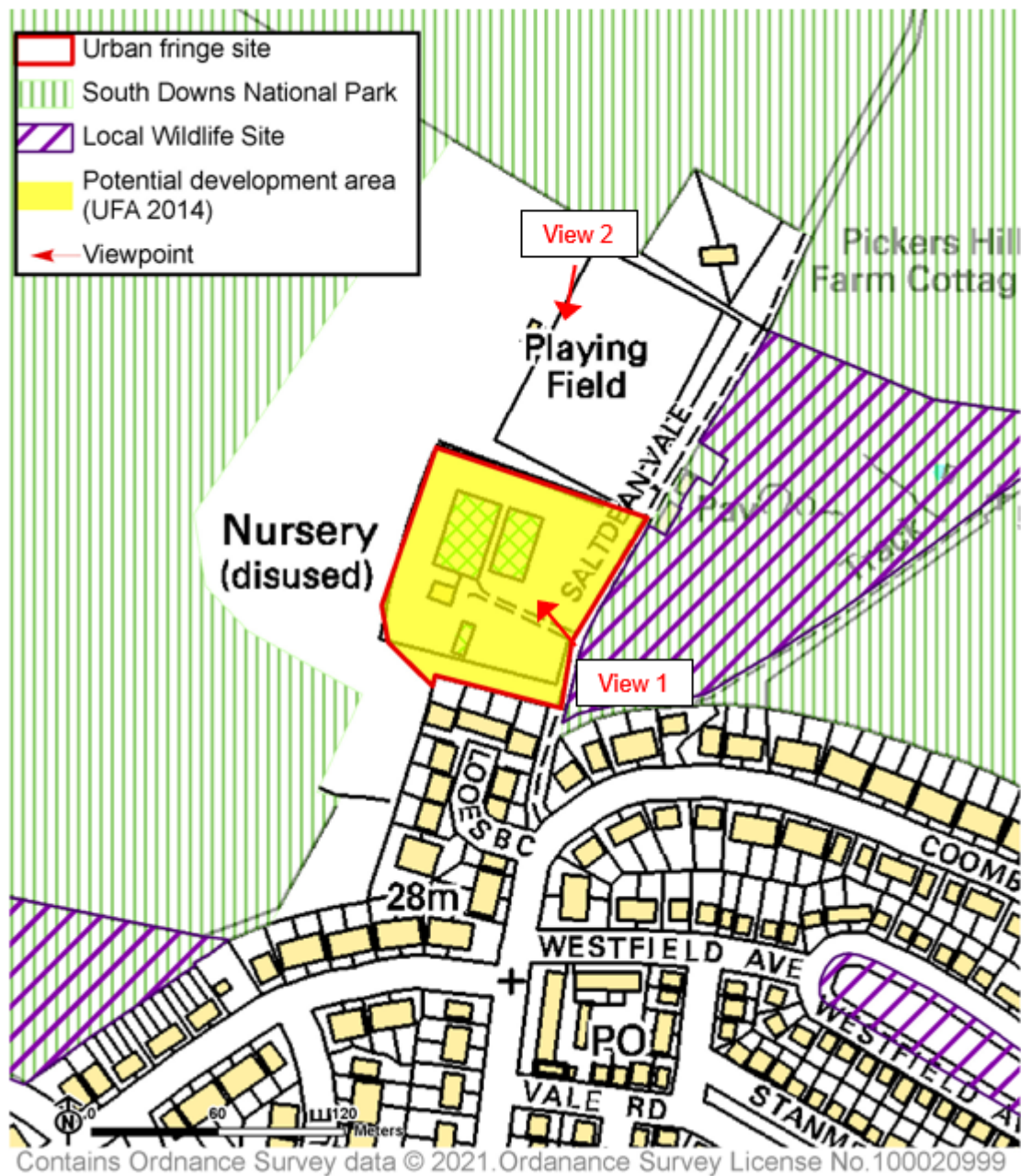


Figure 5.2: View 1 – looking west across the centre of the site from Saltdean Vale



Figure 5.3: View 2 – looking south from one of the upper football pitches – the blocks of conifers mark the southern edge of the site, and the red line marks the northern edge



Overall conclusion of the 2014 UFA for Site 46a

5.32 The overall conclusion of the 2014 UFA for Site 46a was: “Apart from a high risk of surface water flooding on the site, there are no significant ecological, heritage, or landscape constraints to residential development. In addition, there are no recognised open spaces within the site that would be lost if it were developed for housing. On the assumption that appropriate sustainable urban drainage systems will be incorporated into the development, residential development is deemed appropriate on the entire site. Retention of the vegetated boundaries of the field would help to soften views from the SDNP.”

5.33 The 2014 UFA assessment suggested a potential development area of 0.75ha (approximately 75% of the site) with a suitable dwelling density of 25 per hectare, which equates to a potential 18 dwellings. Following a representation by the landowner in response to the Draft CPP2 consultation in summer 2018, the Council has increased this figure to 24 dwellings for Policy H2, but the landowner has now requested an increase to 28 dwellings.

5.34 In line with the 2015 UFA, landscape sensitivity has been assessed under seven headings, as set out in the paragraphs below.

Physical character

5.35 The site lies on low ground between the slopes of High Hill to the west and a ridge extending south from Highdole Hill to the east. Development within the valleys/coombes is the typical pattern in the area, although in parts of Saltdean there has been considerable encroachment on higher slopes, so there is no particular sensitivity associated with the site’s topographical location.

Settlement form

5.36 Development here would represent a northward expansion of the urban edge, but the transition from urban to rural is blurred by the presence of the football ground, which has pitches on several levels, floodlighting columns and associated buildings to the north of the site on Saltdean Vale. In this respect, development would not represent a northward expansion into undeveloped countryside. There is also a residential dwelling just to the north of the football ground. Fingers of development in Saltdean extend into Coombe Bottom and the coombe to the east of Tenant Hill, so expansion along this valley would not be inconsistent with that, but it is noted that the woodland block on the steep slope to the east of the site, and tree cover to the west of Looes Barn Close and around the margins of the site itself, do emphasise the settlement edge in this location. Retention of a sense of containment by this well treed area would reduce the perceived degree of settlement expansion.

Settlement setting

5.37 The surrounding hills form a strong setting to the settlement, and the site does not make any particular contribution to this principal element. Its tree cover merges with that to the south and east to give a more wooded setting to this edge of Saltdean than is the case elsewhere, although the conifers that line the southern edge do not contribute to a natural landscape character.

SDNP setting

5.38 The site immediately abuts the SDNP to the east, and beyond the adjacent football pitches is surrounded by the SDNP on three sides, so development would represent a degree of intrusion into the National Park's setting beyond the existing urban edge. However, retention of a sense of containment by vegetation would reduce the perceived extent of this intrusion.

Visual receptors

5.39 The principal visual receptors are recreational users of routes within the SDNP. Bridleways north along the valley, turning west up onto High Hill, and upslope to the north east onto Highdole Hill, offer the main viewpoints, with those from higher ground offering the strongest views. The sharp urban edges of Saltdean, climbing up from the valley floor both to the east and west of the settlement, are a very visible element in views, so development on the site would not introduce an urbanising element that is not already present.

5.40 The perception of development crossing beyond the wooded margin of the settlement in the vicinity of the site would be limited by the retention of existing vegetation around the site edges, with the wooded slopes to the east screening views on closer approach from the ridge dropping down from Highdole Hill, but consideration should be given to minimising visibility of development that would appear isolated from the existing settlement.

Perceptual qualities

5.41 The site's condition and former usages, and partial containment by sports pitches, creates a clear association with the urban area.

Cultural and historic value

5.42 There are no cultural or historical sensitivities associated with this location. A nursery building, located on the site by the early 1950s, is now ruinous.

Representative Views – wider area

Figure 5.4: Site location – wider area

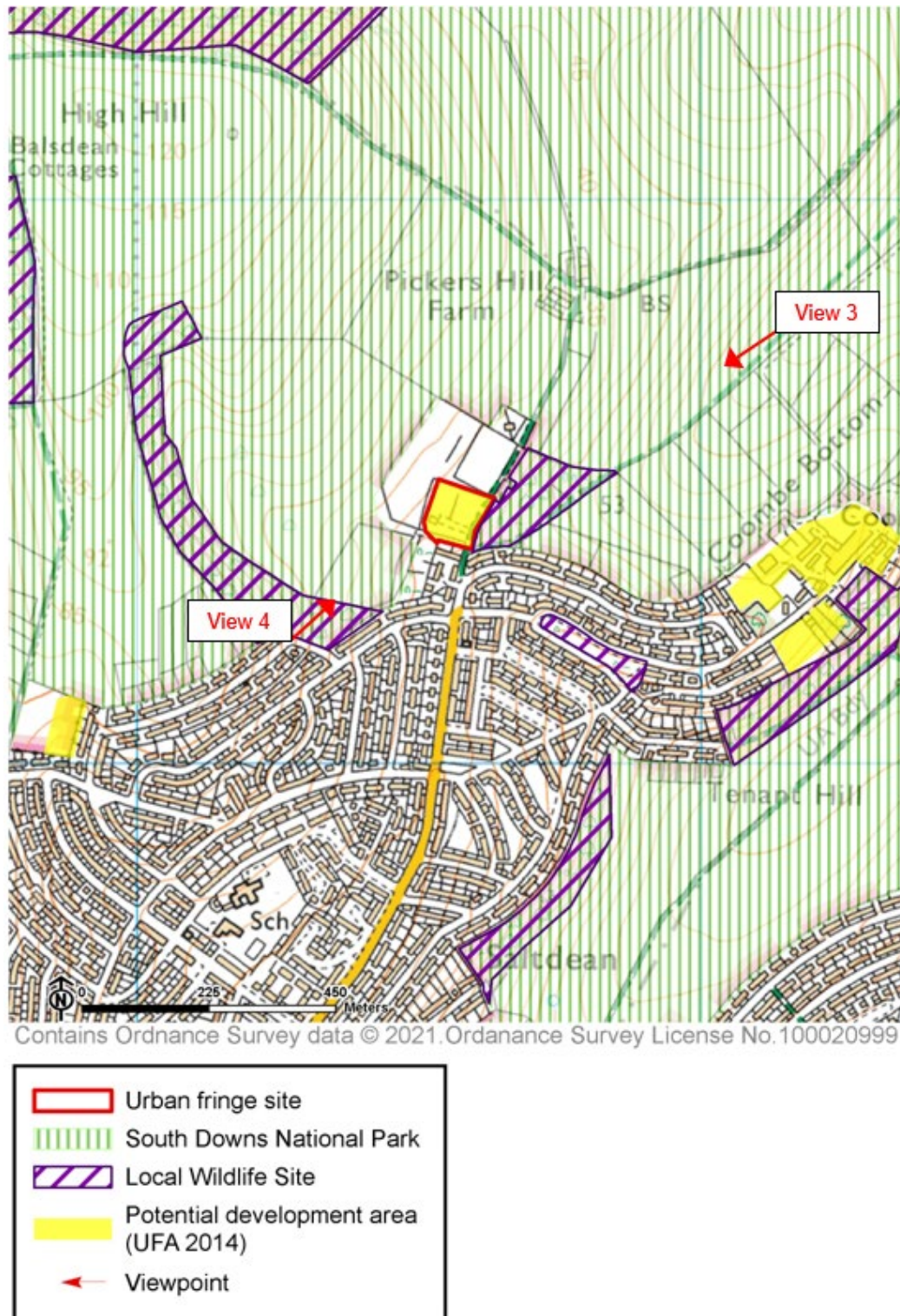


Figure 5.5: View 3 – looking south-west from track running down from Highdole Hill (red line marks approximate footprint of site)



Figure 5.6: View 4 – looking north-east from Wivelsfield Road (red line marks approximate footprint of site)



Potential level of landscape effect

5.43 The principal concern would be impact on views from the SDNP. Although Saltdean is very prominent, any sense of new development forming a significant northward expansion along the valley that is predominantly within the SDNP could potentially constitute a significant adverse landscape impact. Use of existing vegetation to soften views, and restraint in terms of building height, mass and density, are likely to be necessary to avoid such impact.

Avoidance, mitigation and enhancement options

5.44 The north-western part of the site is the most exposed in elevated views from public routes in the SDNP – notably the track that drops down from Highdole Hill to the edge of Saltdean behind the woodland block opposite the site. Consideration should be given to minimising development and maximising the retention of existing vegetation in this area, and to the introduction of new planting.

5.45 Any new planting proposals should focus on native and locally appropriate species. The site is immediately adjacent to a Local Wildlife Site (BH57 – Looes Barn Woodland), so consideration should be given to any potential to create linkage with this.

Overall conclusion

5.46 In conclusion, it is considered that housing at the density suggested in the 2014 UFA (25 dwellings per hectare) can be delivered within the potential development area without significant impacts on landscape, on the assumption that:

- Development is of a scale and density that is consistent with adjacent housing to the south.
- Development does not stand out strongly from the well-treed area in which it is set, and from the existing urban edge, with particular consideration of views on approach from the SDNP, notably from higher ground to the north-east (such as in View 3). Achieving this will limit the density, height and massing of development that can be accommodated.
- Existing boundary vegetation around the northern and western sides of the site is retained, to contribute to achieving the above. Excluding this leaves a developable area of approximately 0.75ha. From a landscape point of view the conifers on the southern side of the site do not contribute positively to character, and there would be no landscape sensitivity associated with their removal if a Landscape and Visual Impact Assessment (LVIA) can demonstrate that it does not increase impact on the SDNP.
- Detailed LVIA is carried out to demonstrate that significant adverse landscape effects will be avoided.

Chapter 6

Summary and Conclusions

6.1 The Urban Fringe Assessment (UFA) 2021 Update responds to the specific issues raised by representations to the CPP2 Regulation 19 stage of consultation in relation to the earlier studies, and to criticisms of the UFA approach, as well as responding to recommendations raised in representations to the CPP2 allocations.

6.2 The City Plan Part One Local Plan Inspector found the UFA 2014 to be provide a robust evidence base to support the strategic level policy of the plan. UFA 2015 has informed the urban fringe allocations now proposed in Policy H2 in City Plan Part Two. The UFA 2014 and UFA 2015 have been used by BHCC as evidence in determining urban fringe housing applications, and the approach and recommendations of the studies have been found to be robust and supported by Inspectors in planning appeals.

6.3 The UFA 2021 Update has validated the earlier UFA 2014 and UFA 2015, finding that the conclusions drawn in these reports generally remain valid.

6.4 Chapter 2 addresses how the 'absolute constraints' on development were determined and why development was not ruled out on sites with local wildlife designations.

6.5 Chapter 3 addresses how the four sites proposed as suitable for Local Green Space were identified and why other sites were not identified as suitable.

6.6 Chapter 4 explains why LUC considers the ecology work undertaken for the 2015 UFA is sufficiently detailed to provide confidence that sites identified as having housing potential could be developed, whilst providing acceptable levels of ecological mitigation and biodiversity net gains except in relation to Site 16 (see below).

6.7 The findings of UFA 2015 sought to provide a high-level assessment, which identified the potential impacts of development and whether mitigation and enhancement measures could be provided. It can therefore be confirmed that the level of ecological assessment completed to date is sufficient and robust to provide a high-level assessment to inform the allocation of sites as part of the City Plan Part Two.

6.8 Some representations questioned whether the UFA ecology work completed in 2015 remains reliable or may now be outdated because it is more than five years old. Ecological assessments for the sites outlined above have been reviewed and updated in line with current policy and legislation to address this point.

6.9 Specific criticisms raised in some representations of the ecological assessments undertaken in the 2014 and 2015 UFA in relation to the three urban fringe sites at Whitehawk Hill/Race Hill (Sites 30, 32/32a and 33) have been addressed.

6.10 For one site the UFA 2021 update has resulted in amended recommendations since the previous UFA work:

- Site 16: Land at and adjoining Horsdean Recreation Ground, Patcham. This site was not subject to ecological appraisal in UFA 2015 and the area recommended for development has since been included within the Patcham Court Field LWS. Following an assessment of this site in 2021, it is concluded that the scale of development proposed will result in the significant loss of habitat that contributes to the LWS. This would require a significant level of mitigation, which is not deemed achievable within the proposed development site and would need to be sought outside of the LWS to provide sufficient mitigation and compensation measures.

6.11 Chapter 5 addresses specific criticisms of landscape judgements made in relation to three of the urban fringe sites located at Whitehawk Hill/Race Hill (Sites 30, 32/32a and 33), and provides a landscape assessment for Site 46a at Saltdean.

6.12 The 2021 UFA Update landscape review for the three Whitehawk Hill/Race Hill sites has confirmed the findings of the earlier landscape assessment work in UFA 2015 and has addressed the specific criticisms raised in the representations submitted by FOWH and others.

6.13 The landscape assessment of Site 46a at Saltdean supports the recommendations in the 2014 and 2015 UFA that the site can accommodate low density housing development (25 dwellings per hectare) within a developable area of approximately 0.75ha allowing for the retention of existing vegetation around the northern and western boundaries of the site.

Appendices: Ecology Assessments

Appendix 1: Site 10, 11 and 12 – Benfield Valley: Ecology Assessment

Ecological Assessment: new survey of Site 10, update of Sites 11 and 12

Ecological Baseline
Biological Records There are no internationally or nationally designated sites within or adjacent to the site. One designated Local Nature Reserve (LNR), Benfield Hill, lies north of the site, on the opposite side of the A27. The site lies within the Benfield Valley Local Wildlife Site (LWS), which is designated for the presence of mature elm trees, anthills, part of an ancient Saxon hedgeline and several specially protected species including early spider orchid (fully protected under schedule 8 of the Wildlife and Countryside Act). There are a further nine LWSs within 1km of the site. Records of relevant protected and/or notable species identified within 1km of the site are not limited to, but include: • Dense-flowered fumitory. • White letter hairstreak. • Adder. • European hedgehog. • Hazel dormouse.
Habitat Description (see Figure 1) <i>Amenity Grassland</i> Amenity grassland within the Study Area comprised the fairway of the golf course. The grassland was dominated by perennial rye-grass and red fescue and was very closely mown. <i>Poor Semi-improved Grassland</i> Poor semi-improved grassland was noted in the north of the Study Area, comprising areas of rougher grassland adjacent to the fairway dominated by false oat-grass, cocks-foot and red fescue. <i>Semi-improved Neutral Grassland</i> Semi-improved neutral grassland was noted along the Hangleton Link Road verges (too small to map on Figure 1) and in a large area of informal open space in the southern part of the Study Area. The road verges were dominated by red fescue with abundant creeping bent-grass and wild carrot; frequent cock's-foot, yarrow and red clover; frequent to locally abundant bird's-foot trefoil and occasional rib-wort plantain. Common knapweed, Canadian goldenrod and ragwort were all present but rare. In the southern part of the Study Area (Site 12) and also the northern part of the site (Site 10) the grassland had a greater structural diversity, with areas of rougher grassland supporting large anthills, and shorter mown paths throughout. The grassland was dominated by cock's-foot and perennial rye-grass with abundant Timothy, frequent false oat-grass and frequent meadow oat-grass. Creeping thistle, dock <i>Rumex</i> spp., and common ragwort were occasional. Vervain and black horehound were present but rare. <i>Semi-improved Calcareous Grassland</i> Site 10 comprised a section of calcareous grassland, it included a similar species composition to the neutral grassland, with less dominant coarse grass species and occasional to rarely noted field scabious

and sheep's sorrel. In addition, a small area in the southern part of Site 12 comprised an area of grassland dominated by red fescue, and occasional sheep's sorrel.

Semi-natural Broadleaved Woodland

A large band of semi-natural broadleaved woodland extended along the northern and western boundaries of Site 12. The woodland was dominated by sycamore with frequent field maple and occasional ash in the north, whilst ash was dominant in the north-west. A sparse shrub layer included hazel coppice with frequent elder and occasional whitebeam also present in the north-west. Holly and Scot's pine were both present but rare. Towards the south-west of Urban Fringe Study Area 12, the shrub layer became denser, with field maple, dogwood, blackthorn, bird cherry, elder and privet all occasional to locally abundant. Close to the A293 along the eastern edge of the woodland, dense ash planting was noted. The ground flora throughout the woodland was dominated by ivy.

Broadleaved Plantation Woodland

Broadleaved plantation woodland was noted along the south-western boundary of Urban Fringe Study Area 11. It was dominated by sycamore with occasional ash, holly and elm *Ulmus* sp. with a shrub layer dominated by bramble, with frequent laurel and privet present but rare. The ground flora was dominated by ivy.

Dense and Scattered Scrub (Including with Scattered Trees)

Dense and scattered scrub bordered the golf course boundaries and was also in small sections separating fairways in the north. In the south dense scrub was dominated by hawthorn and bramble with abundant travellers joy. To the south-east scattered scrub included hawthorn with frequent laurel and dogwood and occasional ivy. Butterfly bush was present but rare.

Scattered scrub dominated by hawthorn was noted in small areas within the grassland in the north-east and south-west of Site 12.

Species-Rich Hedgerow with Trees

An outgrown hedgerow with trees was noted along the south-east boundary of site 12. Species included abundant field maple, hawthorn and blackthorn; occasional to locally-dominant elm; and occasional ivy, travellers joy, elder and wych elm. Dog rose was present but rare.

Bare Ground

Bare ground access tracks and a car park associated with the golf course were noted within the southern part of Site 11.

Buildings

Several buildings were noted in the south-east of Site 11, including a barn constructed of flint and mortar with a pitched tiled roof and several derelict buildings of similar construction.

Fauna

Potential was noted for the following protected species to be present within the Study Area:

- Nesting birds – associated with trees, hedgerows and scrub vegetation throughout the Study Area. Ground nesting birds are considered relatively unlikely given disturbance from recreational use of the Study Area.
- Reptiles – associated with rough grassland habitats in the northern and southern parts of the Study Area and including areas with scattered scrub and edge habitats.
- Badgers – potential foraging habitat provided throughout the Study Area, with woodland and dense scrub providing optimal opportunities for sett building. Evidence of badger (dung pits) was noted within Site 12 during the survey.
- Bats – the habitat mosaic within the Study Area may provide a valuable foraging resource for bats, whilst mature trees within woodlands and hedgerows, and buildings in Site 11, may provide opportunities for bats to roost.
- Dormice – the woodland, scrub and hedgerow habitat throughout the site provides suitable opportunities for dormice to forage and nest.

In addition to the above, the following notable species were identified as potentially present within the Study Area (including those listed of Principal Importance or those listed on the Brighton and Hove local Biodiversity Action Plan):

- Invertebrates – In general grassland habitats in the north of the Study Area are considered relatively low value for invertebrates given the relatively low floristic diversity and high levels of management as a golf course. However small areas supporting higher floristic diversity that were less regularly managed (particularly grassland in the north-east of the Study Area) and including those with anthills (which are known to increase the ecological value of a habitat for invertebrates and other species) may be of value for invertebrates. The mosaic of habitats which provides an abundance of edge habitats throughout the remainder of the Study Area may be of further value to invertebrates. The Study Area is also rich in elm, the sole larval food plant of the white-letter hairstreak which has been recorded on the site.
- Hedgehog – The Study Area provides suitable habitat for this species, including grassland areas suitable for foraging, and woodland and scrub/hedgerows for sheltering and commuting.

Great crested newts are unlikely to be present within the Study Area due to the lack of waterbodies in the vicinity (as identified from OS base mapping, further investigation would be required).

Ecological Appraisal

Designated Sites	No internationally or nationally designated sites are present within or adjacent to the Study Area. The Benfield Valley LWS encompasses the Study Area. The potential development area is also located within this designation, therefore any development will result in habitat loss and fragmentation within the LWS. Proposed development has the potential to result in the loss and fragmentation of habitat, which contributes to the overall value of the LWS. Additional ecological impacts that may result from proposed development include damage and disturbance of retained habitats during construction from surface run-off, contamination and compaction and increased recreational pressure on more sensitive habitats, which support features, such as ant hills and orchids. Proposed development will need to be sensitively designed and will need to include the provision of robust mitigation measures and demonstrable biodiversity net gain to ensure that this can be achieved.
Habitats	The Study Area supports hedgerows and broadleaved woodland habitats which are recognised as priority habitats in the The Brighton & Hove LBAP, and under S41 of the NERC Act. In addition, records of the rare arable plant dense-flowered fumitory have been identified within Site 11 (see

	above for biological records) therefore any development proposals should take this into consideration. Other habitats present within the Study Area are generally common and widespread in the urban fringe and adjacent countryside, although the mosaic within the site is likely to provide value for a range of wildlife. The habitats within the potential development area itself partly comprised amenity and poor semi-improved neutral grassland and scattered scrub habitats of relatively low ecological value. Habitats of higher ecological value included semi-natural broadleaved and plantation woodland and semi-improved grassland habitat.
Species	It is not possible to confirm the value of the Study Area for notable and protected species in the absence of detailed surveys, although there is potential for such species to be present throughout the majority of the Study Area, with the mosaic of grassland, woodland and scrub habitats of value to a wide range of species. Key constraints include: • Reptiles within grassland areas; • Badgers, particularly the presence of setts associated with woodland and scrub; • Bats roosting within mature trees. Lighting of adjacent habitats also has the potential to affect foraging, roosting or commuting habitat; • Dormice nesting and foraging in hedgerow, scrub and woodland; • Notable invertebrates including white letter hairstreak should elm be affected; • Nesting birds could also be affected by removal of scrub or trees. Proposed development area has the potential to result in small-scale impacts to these species. However, it is considered the proposed scheme, if sensitively designed, can provide effective mitigation measures, as well as measurable Biodiversity Net Gain to ensure the continued suitability to the site for these species.

Ecological Avoidance, Mitigation and Enhancement Options

Further surveys

Detailed development proposals must be informed by an updated Extended Phase 1 Habitat Survey and detailed species surveys to ensure that potential impacts are avoided in the first instance where possible, and appropriate mitigation developed where avoidance is not possible. This would likely include (but not necessarily be restricted to) dormice, reptile, badger and bat surveys, with potential consideration given to invertebrates subject to detailed design proposals.

Avoidance, Mitigation and Enhancement Options

The proposed development area is considered appropriate given that it affects a relatively small area of the LWS. This primarily consists of habitats of lower ecological with small areas of woodland and semi-improved habitat that is considered of higher ecological value. However, design of the housing, including the development footprint and location would need to be subject to a high quality design, which carefully consider sensitive ecological features, and provides appropriate mitigation and a demonstrable Biodiversity Net Gain. This is likely to be a significant challenge and may require offsite mitigation and enhancement measures to achieve this.

Potential impacts on the LWS would require mitigation. This would include the enhancement of retained habitats within the site and which contribute to the designation of the LWS. This could include the enhancement of grassland habitats by creating greater structural and floristic diversity and variety of grassland types.

Additional tree, hedgerow and/or scrub planting around the boundary of the potential development area may also help buffer the LWS from some disturbance (including lighting), whilst providing habitat in its

own right and retaining ecological connectivity through the site as mitigation for removal of habitat. This should include elm species to benefit white letter hairstreak, one of the species cited in the LWS designation.

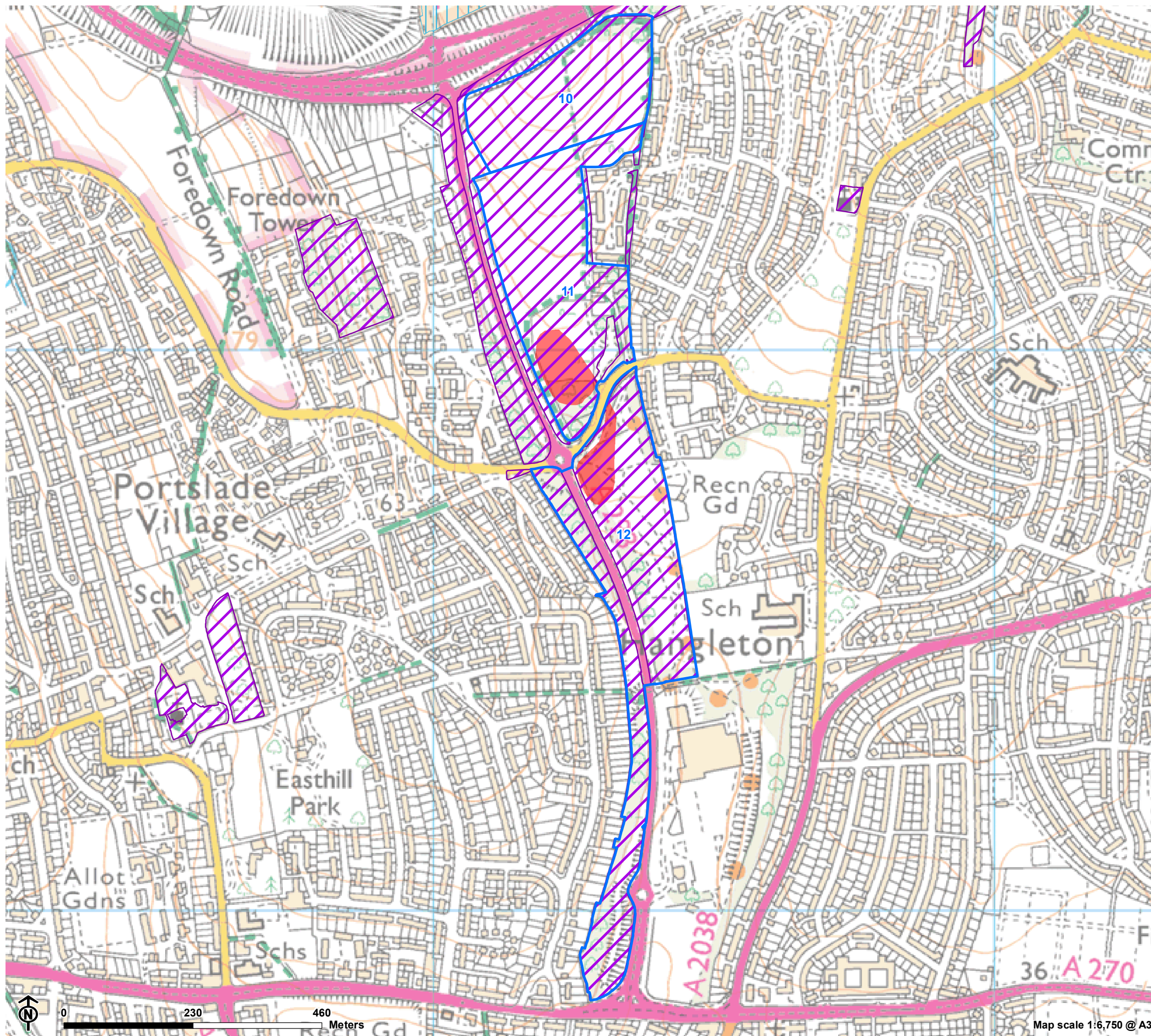
In addition, best construction practice will need to be assured, as detailed within a Construction and Environmental Management Plan or similar, to avoid contamination and disturbance impacts.

If notable or protected species are confirmed as present, mitigation requirements may include:

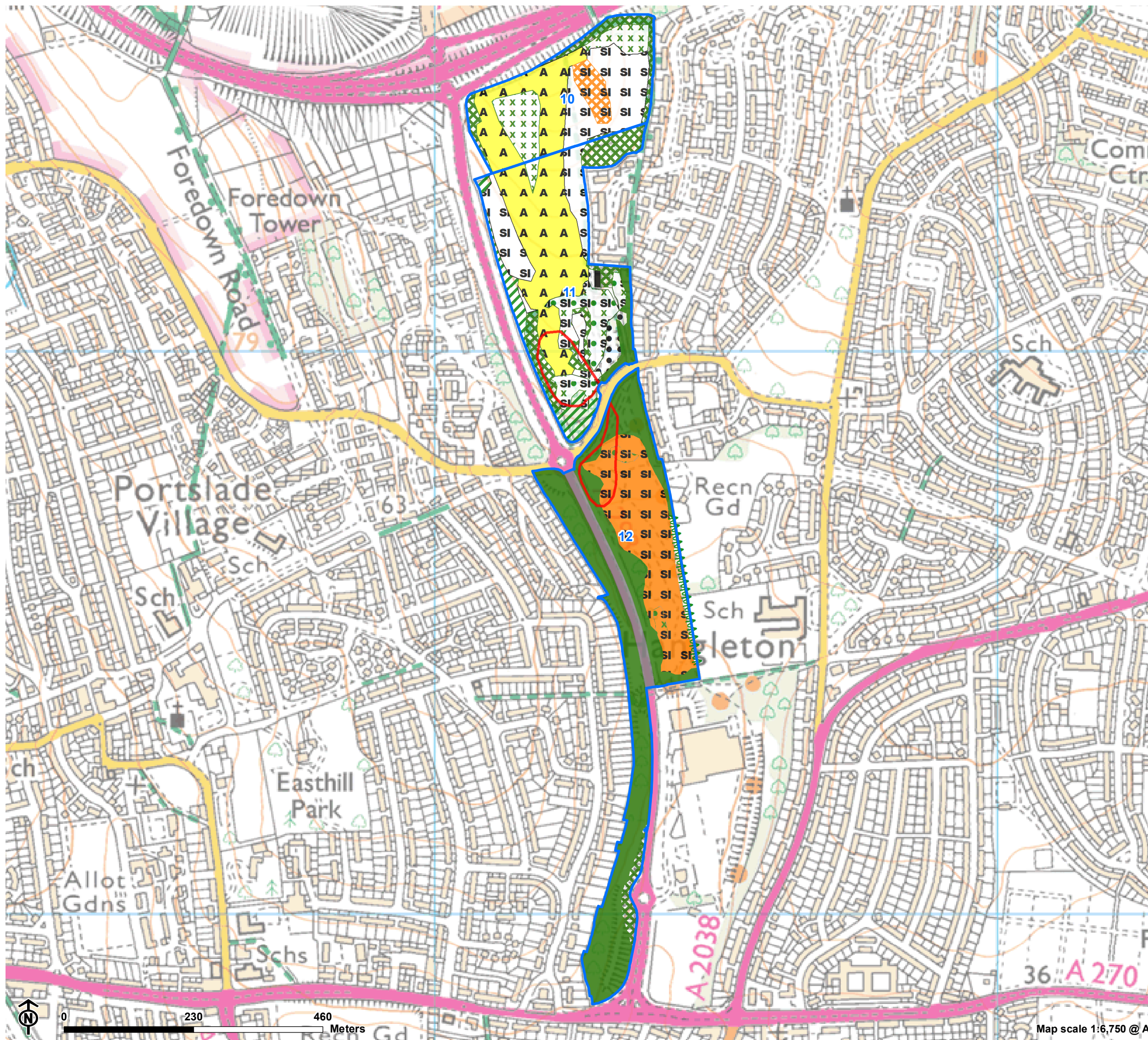
- Timing of works to avoid impacts on nesting birds.
- If bat roosts are found and cannot be retained a suite of suitable mitigation measures would be required including potentially provision of replacement roosts and proceeding with works under a Natural England licence.
- If dormice are identified as present, a suite of suitable mitigation measures would be required including provision of replacement habitat and proceeding with works under a Natural England licence.
- Measures to prevent harm to reptiles, such as translocation from the potential development area to a receptor site which has been suitably enhanced to support the translocated population (ideally within the wider site / LWS).
- Measures to prevent impacts on badger including sensitive timing of works in the vicinity of setts (and potentially under Natural England licence) and best practice construction measures.
- Enhancement and creation of habitat outside the potential development area to provide opportunities for species impacted by the proposals, such as invertebrates or notable plant species.
- Sensitive design of any external lighting to minimise lightspill to adjacent habitats.
- Sensitive design / measures included to ensure predation by domestic pets does not have an impact on sensitive habitats and species, such as a planning condition to prevent cat ownership.
- Other mitigation or enhancement opportunities may include, but are not limited to, incorporation of green infrastructure within the development to provide opportunities for wildlife, such as green roofs or walls, SUDS, wildlife-friendly planting (native species or those providing known benefits to wildlife, such as species of benefit for pollinators), and incorporation of nesting/roosting opportunities for birds and bats.
- Long-term management of habitats should be detailed in a Landscape and Habitat Management Plan or similar, including any newly created as well as retained habitats to ensure long-term viability of such habitats. Any Land Habitat Management Plan should also include remedial measures should a decline in habitat quality or quantity be recorded.

Designated Sites – Site 10,11,12

-  Urban fringe site
-  Local plan housing site
-  Local Nature Reserve
-  Local Wildlife Site



Phase 1 Habitat Survey Map - Site 10,11,12



- Site boundary
- Local plan housing site

Phase 1 linear feature

- Hedge with trees - native species-rich

Phase 1 habitat

- Broadleaved woodland - semi-natural
- Broadleaved woodland - plantation
- Scrub - dense/continuous
- Scrub - scattered
- Neutral semi-improved grassland with scattered scrub and scattered trees
- Poor semi-improved grassland with scattered scrub and scattered trees
- Neutral grassland - semi-improved
- Calcareous grassland - semi-improved
- Improved grassland
- Poor semi-improved grassland
- Cultivated/disturbed land - amenity grassland
- Building
- Bare ground
- Hard standing

Appendix 2: Site 16 - Land at and adjoining Horsdean Recreation Ground, Patcham: Ecology Assessment

Ecological Assessment: new survey of Site 16

Ecological Baseline

Biological Records

There are no internationally or nationally designated sites within or adjacent to the site.

There are two designated LNRs within 1km of the site:

- Ladies Mile Open Space; and
- Withdean and Westdean Woods.

The eastern part of the site lies within the Patcham Court Field LWS, which is comprised of dense scrub, semi-improved neutral grassland, a hedgerow and a mosaic of ephemeral/short perennial, scattered scrub, tall ruderal and introduced shrubs. This represents a locally important area of semi-natural habitat, particularly given its habitat connectivity with the adjacent Braeside Avenue Scrub LWS which also links the site to the Ladies Mile Open Space LNR further to the east. In total six LWSs lie within 1km.

Records of protected and/or notable species identified within 1km of the site are not limited to, but include:

- Bluebell.
- Frog orchid.
- Chalkhill blue.
- White letter hairstreak.
- European hedgehog.
- Hazel dormouse.
- Grass snake.
- Slow worm.
- Common lizard.
- Great Crested Newt (GCN).

Habitat Description (see Figure 6.1) <i>Amenity Grassland</i> Amenity grassland within the site comprised the recreation ground. The grassland was dominated by perennial rye-grass and occasional red fescue and was very closely mown. <i>Semi-improved Neutral Grassland</i> Semi-improved neutral grassland was noted around the edges of the recreation ground, and along paths in the LWS section of the site. The sward contained abundant perennial ryegrass, cocksfoot, red fescue and false oat grass together with frequent yarrow, agrimony, red clover, Yorkshire fog, ribwort plantain and black medick. <i>Semi-natural Broadleaved Woodland</i> There was also a small section of semi-natural broadleaved woodland south of the recreation ground. The woodland was dominated by sycamore with frequent lime, goat willow and hornbeam. <i>Dense and Scattered Scrub (Including with Scattered Trees)</i> Dense and scattered scrub dominated the area designated as LWS. This was dominated by dogwood and hawthorn with frequent bramble, blackthorn and hazel. The ground was dominated by ivy. Butterfly bush was present but rare. <i>Buildings</i> A wooden composed building was present in the north of the site which was used as the football clubhouse.	
Fauna Potential was noted for the following protected species to be present within the Study Area: • Nesting birds – associated with trees, hedgerows and scrub vegetation. Ground nesting birds are considered relatively unlikely given disturbance from recreational use. • Reptiles – associated with rough grassland habitats, scrub and woodland edge habitats. • Badgers – potential foraging habitat provided throughout the Study Area, with woodland and dense scrub providing optimal opportunities for sett building. • Bats – mature trees within woodland and the club house may provide opportunities for bats to roost. • Dormice – within the woodland and scrub there were nesting and foraging opportunities. In addition to the above, the following notable species were identified as potentially present (including those listed of Principal Importance or those listed on the Brighton and Hove local Biodiversity Action Plan): • Invertebrates –The mosaic of habitats within the LWS, as well as the allotments and edge habitats throughout the remainder of the site may be of value to invertebrates. • Hedgehog – The site provides suitable habitat for this species, including grassland areas suitable for foraging, and woodland and scrub/hedgerows for sheltering and commuting. Great crested newts are unlikely to be present within the site due to the lack of waterbodies in the vicinity (as identified from OS base mapping, further investigation would be required).	
Ecological Appraisal	
Designated Sites	No internationally designated sites are present within or adjacent to the site. The Patcham Court Field LWS is located within the site, and includes the entire area allocated for housing deveelopment. Therefore any development

	will result in habitat loss within the LWS. Other impacts may include contamination during construction. Any increase in the local population could increase recreational pressure. The proposed allocation would result in the loss of a significant proportion of the LWS (about 50% of the total area) and would therefore be likely have a significant negative effect on the integrity of the designated site.
Habitats	The site supports hederows and broadleaved woodland habitats which are recognised as priority habitats in the The Brighton & Hove LBAP, and under S41 of the NERC Act. Other habitats present within the site are generally common and widespread in the urban fringe and adjacent countryside, although the mosaic within the site is likely to provide value for a range of wildlife. The proposed development area was predominantly comprised of dense scrub that was intersected with linear network of semi-improved grassland and a small area of scattered scrub in the south. The proposed development would result in the loss of a large proportion of habitats considered of ecological value within the site with exception to the allotment in the east.
Species	It is not possible to confirm the value of the site for notable and protected species in the absence of detailed surveys, although there is potential for such species to be present throughout the majority of the site, with the mosaic of grassland, woodland and scrub habitats of value to a wide range of species. Key constraints include: • Reptiles within grassland areas. • Badgers, particularly the presence of setts associated with woodland and scrub. • Bats roosting within mature trees. Lighting of adjacent habitats also has the potential to affect foraging, roosting or commuting habitat. • Dormice, within woodland and scrub. • Notable invertebrates including white letter hairstreak should elm be affected. • Nesting birds could also be affected by removal of scrub or trees.
Ecological Avoidance, Mitigation and Enhancement Options	
Proposed development at the current scale and density is not considered appropriate. However, should development be proposed at this location, the following measures detailed below would likely be required. Further surveys Detailed development proposals must be informed by an updated Extended Phase 1 Habitat Surveys and detailed species surveys to ensure that potential impacts are identified, and appropriate mitigation developed. This would likely include (but not necessarily be restricted to) dormouse, reptile, badger and bat surveys, with potential consideration given to invertebrates subject to detailed design proposals. Avoidance, Mitigation and Enhancement Options Due to the extent of habitat that would be lost in relation to the LWS, it is not considered feasible for housing development at the proposed scale and density to be deliverable without significant impact to the LWS and without requirement for significant mitigation and compensation to be implemented both on and offsite. From an ecological perspective, this housing allocation is not deemed suitable for development as currently proposed. A much lower scale and density may potentially be deliverable subject to very careful design and mitigation.	

Mitigation and enhancement opportunities likely to be required for the proposed allocation could include, but are not limited to:

- Like-for-like replacement of habitat lost (compensation) as part of the proposed development in areas outside of the LWS. This is likely to be restricted within the site due to non-ecological constraints and would therefore need to be considered beyond the site boundary. Any such compensation would need to consider the time required to recreate habitat of equal or greater value and ensure appropriate management is secured in perpetuity. At present there is insufficient certainty as to whether this could be achieved.
- Long-term management of retained and created habitats, secured through a management plan which would be a condition of any development within the site.
- Hedgerow and/or scrub planting elsewhere is the site to provide protection to retained habitat, buffer the site from some disturbance (including lighting), whilst providing additional habitat in its own right.
- Pond and/or wetland creation to increase habitat and species diversity within the site.
- Interpretation boards and education opportunities to ensure residents understand the importance of protecting sensitive habitats and species.
- Best construction practice will need to be assured, as detailed within a Construction and Environmental Management Plan or similar, to avoid contamination and disturbance impacts.
- Other mitigation or enhancement opportunities may include incorporation of green infrastructure within the development to provide opportunities for wildlife, such as green roofs or walls, SUDS, wildlife-friendly planting (native species or those providing known benefits to wildlife, such as species of benefit for pollinators), and incorporation of nesting/roosting opportunities for birds and bats.
- Long-term management of habitats should be detailed in a Landscape Habitat Management Plan or similar, including any newly created as well as retained habitats to ensure long-term viability of such habitats. Any Landscape and Habitat Management Plan should also include remedial measures should a decline in habitat quality or quantity be recorded.

If notable or protected species are confirmed as present, mitigation requirements may include:

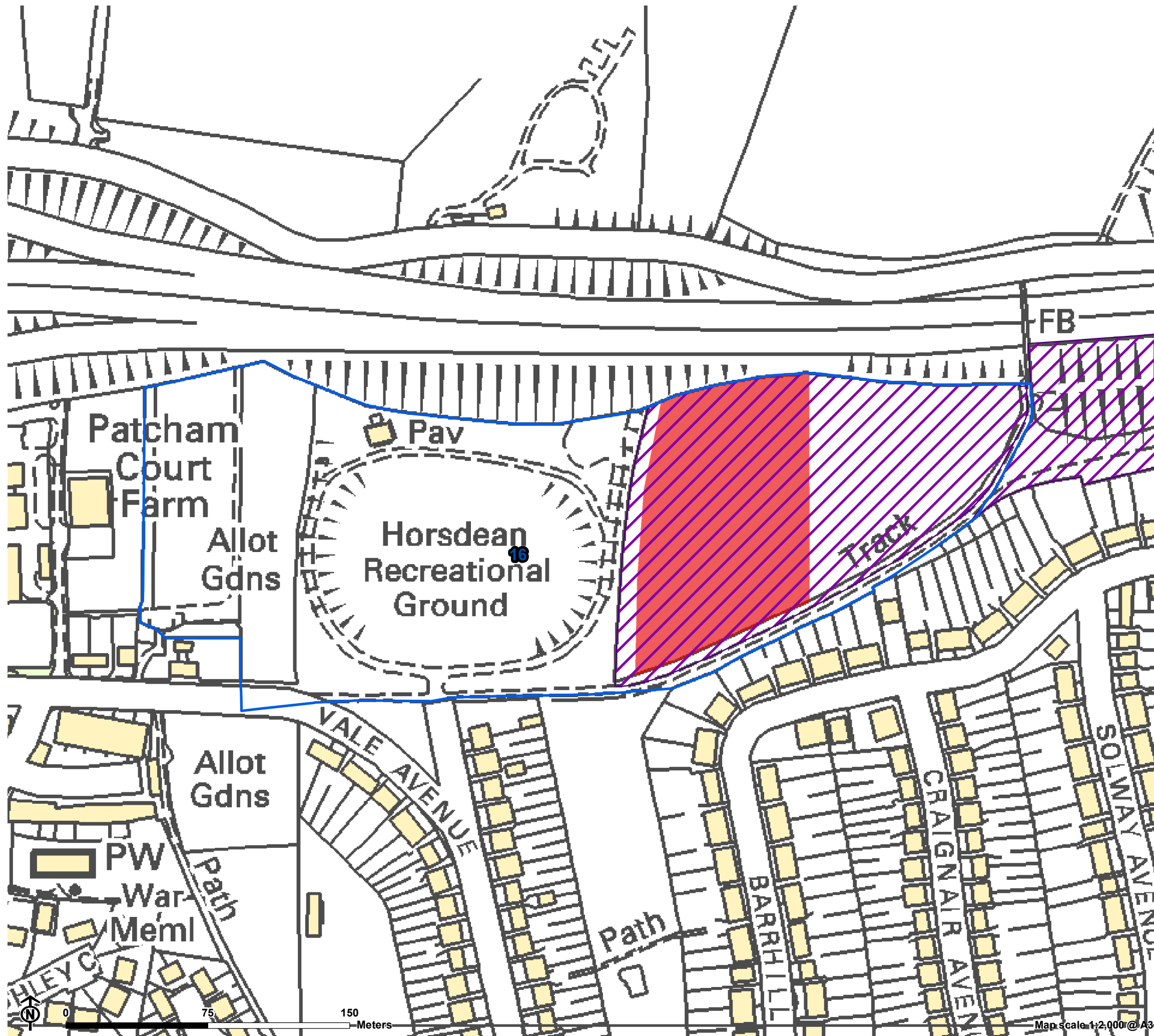
- Timing of works to avoid impacts on nesting birds.
- If bat roosts are found and cannot be retained a suite of suitable mitigation measures would be required including potentially provision of replacement roosts and proceeding with works under a Natural England licence.
- If dormouse are present a suite of suitable mitigation measures would be required, including habitat creation elsewhere, and works to proceed under Natural England licence.
- If great crested newts are present (in terrestrial phase only) a suite of suitable mitigation measures would be required, including habitat creation elsewhere, and works to proceed under Natural England licence.
- Measures to prevent harm to reptiles, such as translocation from the potential development area to a receptor site which has been suitably enhanced to support the translocated population (ideally within the wider site).
- Measures to prevent impacts on badger including sensitive timing of works in the vicinity of setts

(and potentially under NE licence) and best practice construction measures.

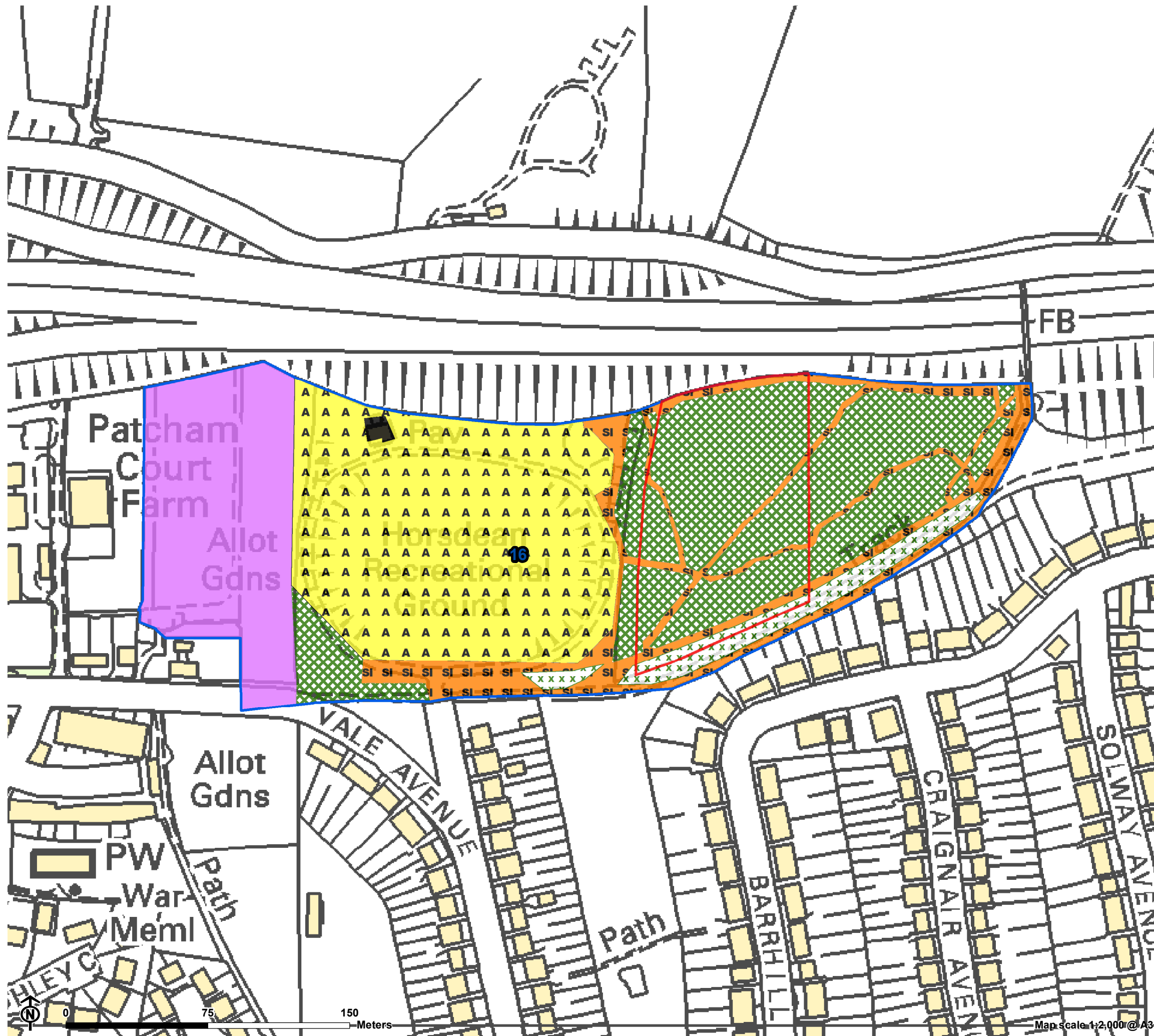
- Enhancement of habitat outside the potential development area to provide opportunities for species impacted by the proposals, such as invertebrates or notable plant species. In particular those cited within the LNR and LWS designations which lie adjacent.
- Sensitive design of any external lighting to minimise light spill to adjacent habitats.
- Species specific measures to be incorporated into Local Habitat Management Plan created for the development, and to have due consideration in the design of any housing (including suggested enhancement options such as green roofs for example).

Designated Sites - Site 16

-  Site boundary
-  Local plan housing site
-  Local Wildlife Site



Phase 1 Habitat Survey Map - Site 16



- Site boundary
- Local plan housing site
- Phase 1 habitat**
- A2.1 Scrub - dense/continuous
- A2.2 Scrub - scattered
- B2.2 Neutral grassland - semi-improved
- J1.2 Cultivated/disturbed land - amenity grassland
- J3.6 Buildings
- Allotments

Appendix 3: Site 30 - Land at and adjoining Brighton Race Course: Ecology Assessment

Ecology Assessment: update of Site 30

Ecological Baseline

Biological Records

There are no internationally or nationally designated sites within or adjacent to the site.

Most of the site, including the proposed allocation, falls within the Whitehawk Hill LNR, designated for calcareous grassland habitats which support notable butterflies, including adonis and chalkhill blue butterfly. A small area adjacent to Wilson Avenue is also designated as Wilson Avenue, Whitehawk SNCI. This SNCI is identified as a valuable semi-natural buffer to the proposed LNR.

Records of calcareous grassland were provided in the south of the site, outside of the potential development area.

Outside of the site boundary, one designated LNR, Bevendean Down LNR lies within 1km of the site, and 8 LWSs lie within 1km.

Records of protected and/or notable species identified within 1km of the site are not limited to, but include:

- | | |
|--|--|
| • West-European hedgehog. | • The fruit fly <i>Urophora cuspidata</i> . |
| • Slow worm. | • The weevil <i>Trachyphloeus asperatus</i> . |
| • Common Lizard. | • The weevil <i>Tychius schneideri</i> . |
| • Common Toad. | • The fly <i>Zophomyia temula</i> . |
| • Adonis blue. | • The ant-like stone beetle <i>Stenichnus pusillus</i> . |
| • The moth <i>Adscita globulariae</i> . | • Red-veined darter. |
| • Garden tiger moth. | • Round-headed rampion. |
| • Wasp spider. | • Wormwood. |
| • Hornet robberfly. | • Red valerian. |
| • Small heath. | • Nettle-leaved goosefoot. |
| • Small blue butterfly. | • Basil-thyme. |
| • The drilid beetle <i>Drilus flavescens</i> . | • Corn parsley. |
| • Dingy skipper. | • Yellow vetch. |
| • Lesne's earwig. | • Winter heliotrope. |
| • Clover head weevil. | • Chalk eyebright. |
| • Wall butterfly. | • Dense-flowered fumitory. |
| • The leaf beetle <i>Longitarsus ballotae</i> . | • Grand-toothed hawkweed. |
| • The leaf beetle <i>Longitarsus parvulus</i> . | • Yellow vetchling. |
| • Adonis blue butterfly. | • Narrow-leaved everlasting pea. |
| • Lackey moth. | • Sickie medic. |
| • The bee <i>Melitta tricincta</i> ; | • Chalk milkwort. |
| • The tumbling flower-beetle <i>Mordellistena neuwaldeggiana</i> . | • Bulbous meadow-grass. |
| • The wasp <i>Mutilla europaea</i> . | • Bastard-toadflax. |

- The weevil *Orthochaetes setiger*.
- The mason bee *Osmia (Neosmia) bicolor*.
- Red-tailed cuckoo bumblebee.
- Grizzled skipper.
- Chalk carpet moth.
- Cinnabar moth.
- Swift.
- Grey heron.
- House martin.
- Peregrine falcon.
- Crossbill.

Invasive species records located within the Study Area included:

- Variegated yellow archangel.
- Japanese knotweed.
- Giant knotweed.
- Hybrid bluebell.

Habitat Description (see Figure 11.1)

Amenity Grassland

Large areas of the Study Area supported regularly managed amenity grassland habitats, with a low species diversity including common species such as perennial rye grass, red fescue, white clover, yarrow, dandelion *Taraxacum* agg., and creeping thistle *Cirsium arvense*. This included areas surrounding the racecourse buildings and forming the race course itself (adjacent to Warren Road); and sports pitches in the east of the Study Area adjacent to Haybourne Road and Whitehawk Road.

Semi-improved Neutral Grassland

Semi-improved grassland was recorded to the east of the race course track and east of the allotments in the north, within the centre of the Study Area between the race course and the sports pitches adjacent to Haybourne Road and Whitehawk Road.

The semi-improved grassland to east of the race course had a relatively tall sward height with mown footpaths. Species included dominant perennial ryegrass with abundant ribwort plantain and frequent false oat-grass. Occasional common knapweed, common toadflax, Timothy and common ragwort were also noted.

Semi-improved neutral grassland to the east of the allotments had a relatively varied sward structure, with a much shorter sward height in areas regularly used by recreational users. Species recorded included abundant red fescue, silver weed and white clover with frequent broad-leaved willowherb and occasional scarlet pimpernel. Scattered scrub was also present (see below), whilst frequent small areas of tall ruderal vegetation were also present. These areas included species such as abundant mugwort and great willowherb, frequent teasel and hedge mustard and occasional bristly ox-tongue.

The semi-improved grassland in the centre of the Study Area was rough with a relatively tall sward height. Species included abundant false-oat-grass, common nettle and hawkbit *Leontodon* sp with frequent creeping thistle, common toadflax, red clover, field scabious and ribwort plantain. Occasional common agrimony, bristly ox-tongue, ragged-robin and ladies bedstraw were also recorded. Areas in the south of the Study Area have been identified as calcareous grassland within biological records.

Semi-natural Broadleaved Woodland

Semi-natural broadleaved woodland was present in the south, adjacent to Manor Hill. The canopy layer comprised of dominant semi-mature sycamore and elder whilst the shrub layer supported dominant bramble. The shrub layer was dense and difficult to access.

Scrub

Dense scrub was noted in a linear strip in the centre of the Study Area and south-west of the allotments. Species included abundant sycamore, elder and bramble with frequent hawthorn and apple *Malus* sp., and occasional wild privet, cotoneaster sp and spurge *euphorbia* sp.

Scattered scrub was also present over neutral grassland to the east of the allotments. Species recorded

included abundant sycamore with frequent ash and occasional hawthorn.

Dense scrub was also noted in the south and south-west of residential housing on Whitehawk Hill Road. The scrub was dominated by bramble, and the area included frequent small areas of tall ruderal vegetation which included dominant nettles, abundant hedge bindweed, frequent dandelion and occasional bristly ox-tongue and common mallow.

Allotments

In the north of the Study Area, north of Whitehawk, the Study Area included an active allotment. This supported a complex mosaic of habitats including cultivated plots, areas of rough grassland, tall ruderal and ephemeral communities, and areas colonised by scrub.

Buildings

Buildings associated with the race course and garden centre were situated along the western boundary of the Study Area.

Fauna

Potential was noted for the following protected or notable species to be present within the Study Area:

- Nesting birds – the scrub and woodland habitat were likely to support a range of nesting bird species.
- Reptiles – the rough semi-improved grassland, scattered/dense scrub and allotments provided optimal foraging and shelter habitat for common and widespread reptile species, whilst the woodland may also provide overwintering opportunities.
- Badgers – potential foraging habitat was located throughout the Study Area, with woodland providing opportunities for sett building.
- Invertebrates – the semi-improved grassland habitats, and edge habitats / scattered scrub habitats provide valuable habitat for invertebrates, in particular notable butterfly species. In addition the notable soldier beetle *Malthodes lobatus* has been identified from the Study Area (exact location unknown but understood to have been associated with scrub habitats), as well as species such as the hornet robberfly (although this species is reliant on grazing animals which are not present on the site and therefore any records may have been transitory individuals) and dingy skipper (both Brighton and Hove LBAP priority species).
- Bats – the habitat mosaic may provide a valuable foraging resource for bats. The woodlands did not appear to support trees of sufficient maturity to support bat roosts.
- No waterbodies were identified within 500m with ecological connectivity to the Study Area (as identified from OS base mapping; further investigation would be required). However, there is potential for waterbodies to be present within the allotments which could support breeding populations of great crested newt. The terrestrial habitats, and particularly the woodlands, allotments, semi-improved grassland and scrub habitats would provide terrestrial habitat for this species, if present, to forage, shelter and overwinter.

Dormice are unlikely to be present within the Study Area given the urban residential location and isolation of woodland and scrub from larger areas of suitable habitat.

Proposals will result in the small-scale loss of scrub habitat, which may be suitable for species, as identified above. Due to the scale of development proposed, impacts for these species can be appropriately avoided and mitigated for as part of the scheme design.

Ecological Appraisal

Designated Sites	Most of the Study Area, including the proposed allocation itself, sits within the Whitehawk Hill LNR, which is designated for calcareous grassland habitats which support notable butterflies, including adonis and chalkhill blue butterfly. A small area adjacent to Wilson Avenue is also designated as the Wilson Avenue, Whitehawk LWS. This LWS is identified as a valuable semi-natural buffer to the LNR. Records of calcareous grassland were restricted to the south of the site,
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	outside of the potential development area. The proposed development area has the potential to result in the loss of a small area of LNR, which is comprised entirely of dense scrub habitat. The loss of a small area of scrub habitat is not considered to result in a significant effect on the overall integrity of the LNR.
Habitats	Common and widespread habitats were noted within the Study Area including semi-improved grassland, amenity grassland, semi-natural broadleaved woodland, scrub and tall ruderal habitats. The proposed development site was comprised entirely of dense scrub, which formed part of a larger area of dense scrub that extended to the north, south and west and was bordered by housing development associated with Whitehawk in the east. Proposals will result in the small-scale removal of dense scrub habitat, which, providing high quality scheme design is adopted, can be mitigated for. The proposed development presents the opportunity to provide Biodiversity Net Gain and long-term management net gains as detailed below.
Species	Without detailed ecological surveys, it is not possible to confirm the value of the Study Area for notable and protected species. However, the mosaic of semi-improved grassland, scrub, woodland, and allotments are likely to provide valuable habitat to a range of notable and protected species. The proposed development area itself is likely to support a range of nesting birds which would be affected by loss of scrub habitats. Other key constraints may include the potential presence of reptiles with foraging and sheltering habitat associated with the mosaic of grassland and scrub habitats likely to be lost as a result of any development, whilst badger could also be affected if setts are affected within scrub habitats. Great crested newt may also be a consideration with the proposed development area providing suitable terrestrial habitat for this species. However, extensive opportunities for these species would remain in the wider Study Area. Notable invertebrate species may also be affected by habitat loss, with grassland and edge habitats between grassland and scrub likely to be of greatest value. However, a relatively small area of habitat would be affected, with extensive areas of similar habitat remaining in the wider site which would be likely to provide similar opportunities for notable invertebrate species. Lighting of adjacent habitats also has the potential to affect bats, which may be using scrub and grassland habitats for foraging or commuting. Although no Japanese knotweed was identified during the survey, this has been previously recorded on the Site as identified in biological records. This highly invasive species is subject to a range of legislation (for example, under the Wildlife and Countryside Act 1981 and Environmental Protection Act 1990) to prevent its spread. Other invasive species have also been recorded within the study area. Any development works would present a risk of spread of these species should they remain present.
Ecological Avoidance, Mitigation and Enhancement Options	
Further surveys Detailed development proposals must be informed by an updated Extended Phase 1 Habitat Survey and detailed species surveys to ensure that potential impacts are identified, and appropriate mitigation developed. This may require detailed surveys for notable plant species, and surveys for birds, great crested newt, reptiles, badger and invertebrates. Surveys should also seek to confirm whether Japanese knotweed and other invasive species remains in the site Avoidance, Mitigation and Enhancement Options	

In principle, the development proposed at this location can be achieved provided there is careful design and high-quality mitigation, enhancements and demonstratable Biodiversity Net Gains are delivered. This may require the provision of enhancements within the wider LNR to ensure that that Biodiversity Net Gain is deliverable.

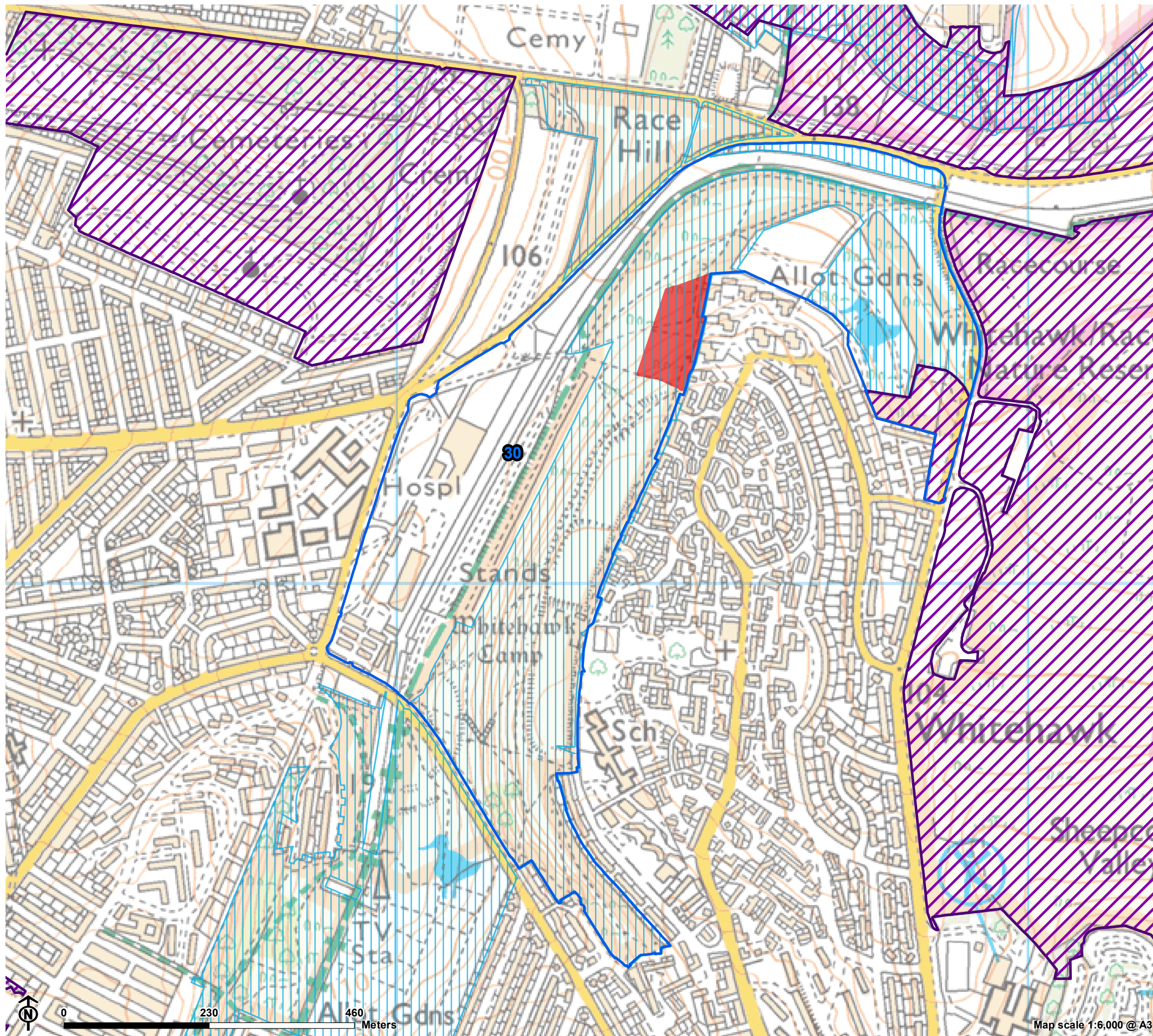
Potential impacts on the LNR, including partial loss, would require mitigation. This would be likely to include the enhancement of retained habitats, in particular to restore and recreate calcareous grassland through scrub control and grassland management regimes. The proposals here may also provide the opportunity to excavate chalky subsoils to be used to recreate calcareous grassland. The enhancement of habitats should also aim to increase their robustness to any increase in recreational pressure. This could include, for example, improved habitat management as above, and also improving footpaths and interpretation to guide and educate people.

In addition, best construction practice will need to be assured, as detailed within a Construction and Environmental Management Plan or similar, to avoid contamination and disturbance impacts of retained habitats.

If Japanese knotweed is confirmed as present, a treatment strategy will need to be developed to ensure the species (included contaminated soil) is not spread. This may include proposals to chemically treat plants, and/or to excavate contaminated material for disposal in accordance with best practice guidance.

If notable or protected species are confirmed as present, mitigation requirements may include:

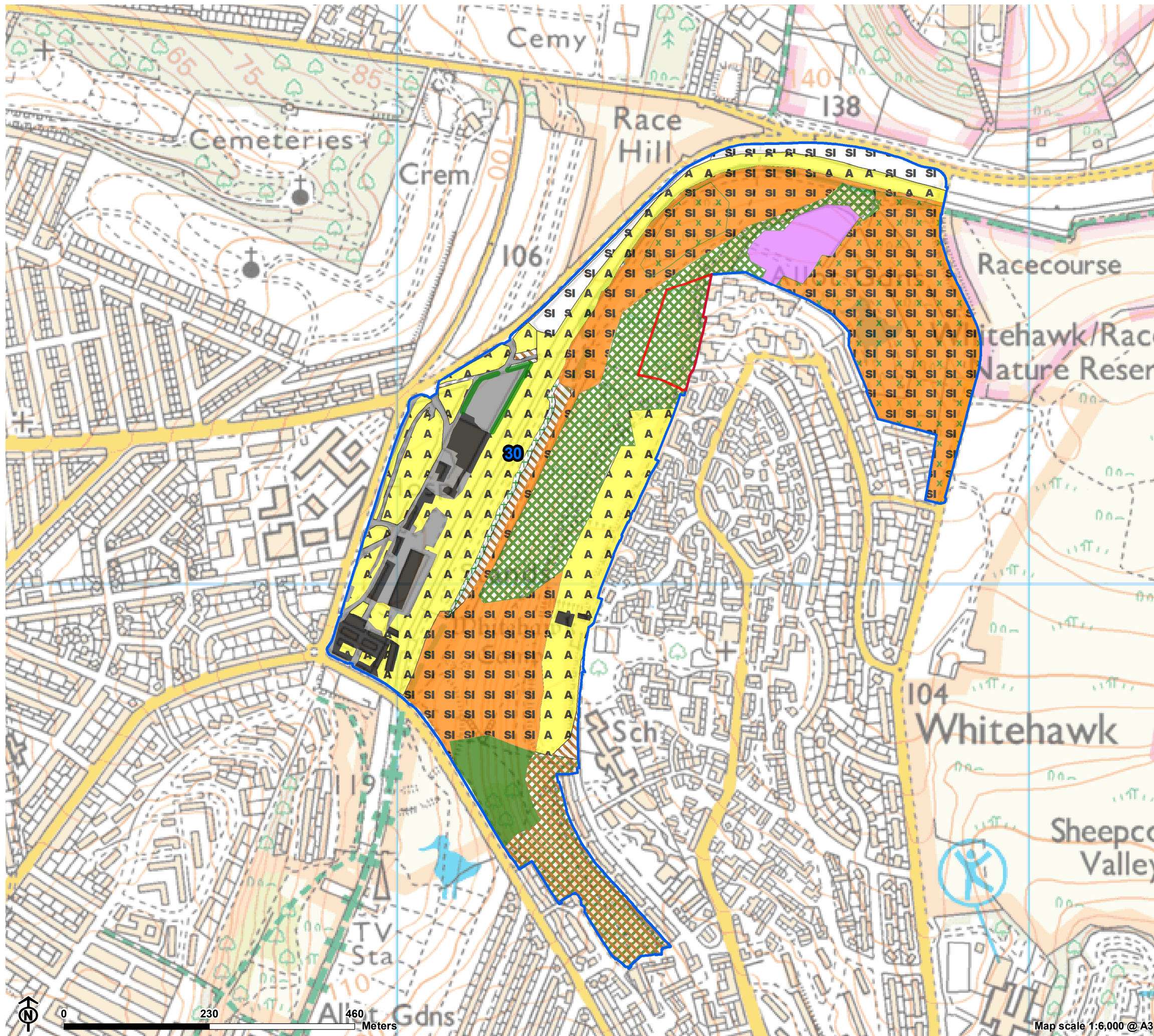
- Timing of works to avoid impacts on nesting birds
- Measures to prevent harm to reptiles, such as translocation from the potential development area to a receptor site which has been suitably enhanced to support the translocated population (ideally within the Study Area). If present, similar mitigation measures may be required to address impacts on great crested newt under a Natural England European Protected Species licence.
- Measures to prevent impacts on badger including sensitive timing of works in the vicinity of setts (and potentially under Natural England licence) and best practice construction measures
- Enhancement of habitat outside the potential development area to provide additional opportunities for species impacted by the proposals, such as invertebrates
- Sensitive design of any external lighting to minimise lightspill to adjacent habitats
- Sensitive design / measures included to ensure predation by domestic pets does not have an impact on sensitive habitats and species.
- Other mitigation or enhancement opportunities may include the incorporation of green infrastructure within the development to provide opportunities for wildlife, such as green roofs or walls, wildlife-friendly planting (native species or those providing known benefits to wildlife, such as species of benefit for pollinators), and incorporation of nesting/roosting opportunities for birds and bats. Given the nature of the potential development, residential blocks could be interspersed with landscaping proposals to include calcareous grassland.
- Long-term management of habitats should be detailed in a Landscape and Habitat Management Plan (LHMP) or similar, including any newly created as well as retained habitats to ensure long-term viability of such habitats. The LHMP should also detail measures to protect, enhance and manage the wider Whitehawk Hill LNR, and any LHMP should also include remedial measures should a decline in habitat quality or quantity be recorded.



Designated Sites - Site 30

- Site boundary
- Local plan housing site
- Local Nature Reserve
- Local Wildlife Site

Phase 1 Habitat Survey Map - Site 30



Appendix 4: Site 32 and 32a – Land at South Downs Riding School and Reservoir Site: Ecology Assessment

Ecological Assessment: update of Site 32 and 32a

Ecological Baseline

Biological Records

There are no internationally or nationally designated sites within or adjacent to the site.

The northern part of the site comprises part of the Bevendean Down LNR, and Bevendean Horse Paddocks LWS. The LNR is designated for its rich chalk grassland, which support species such as Adonis blue butterfly, orchids and hornet robber fly. The LWS is designated for semi-improved pasture and scrub, and also supports hornet robber fly and the largest population of common frog in the city.

The Whitehawk Hill LNR lies within 1km to the south of the site, and a further 8 LWSs lie within 1km.

Records of relevant protected and/or notable species identified within 1km of the site are not limited to, but include:

- Great Crested Newt (GCN).
- Common lizard.
- Common frog.
- Red star thistle.
- Sea knotgrass.
- Bluebell.
- Eye bright.
- Small blue.
- White letter hairstreak.
- Small heath.

Habitat Description (see Figure 13.1)

Poor Semi-improved Grassland

Poor semi-improved grassland was recorded in areas grazed by horses. The grassland present within the northern part of the Study Area (in the north of Site 32 and within the LNR) was particularly heavily grazed and was dominated by areas of bare ground with frequent species associated with disturbed ground including dock sp., ribwort plantain and occasional pineapple weed.

The poor semi-improved grassland in the south of Site 32 had a short sward height but was not grazed as heavily. Species included white clover and ribwort plantain.

Amenity Grassland

Amenity grassland was recorded in the southern part of Site 32a associated with a covered reservoir. This had been recently mown at the time of the survey and it is assumed it is relatively regularly mown as part of maintenance of the reservoir although this appeared to be managed through mowing rather than grazing. Access was restricted to this area, with species such as perennial rye-grass, dandelion, ribwort plantain and bristly ox-tongue viewed through the fence from the south.

Scrub

A small area of dense scrub was recorded on the eastern boundary of the Study Area, adjacent to the horse paddocks in the north. Species included dominant bramble and frequent elder.

Tall Ruderal

Tall ruderal vegetation, dominated by common nettle, was recorded in the east, adjacent to the farm track and south of the horse paddocks in the north of the Study Area.

Buildings and hard standing

Buildings and associated hard standing were located in the centre of the Study Area.

Fauna

Potential was noted for the following protected or notable species to be present within the Study Area:

- Bats – given the type of buildings present on the site, including low wooden stables and metal farm buildings, it is unlikely that opportunities are provided for bats to roost. However, the potential for bat roosts to be present cannot be ruled out at this stage.
- Birds - given the types of buildings present, including low woodland stables and metal farm buildings, there is potential for nesting bird species, such as swifts, swallows and barn owl to be present.

Reptiles, badgers and dormice are unlikely to be present within the Study Area due to a lack of suitable habitats. Great crested newts are unlikely to be present within the Study Area due to the lack of water bodies within 500m of the Study Area (as identified from OS base mapping; further investigation would be required). The habitats did not support features which would be likely to provide opportunities for notable invertebrate species, with low floristic diversity and heavily managed grassland habitats.

Ecological Appraisal

Designated Sites

The northern part of the study area comprised part of a LNR and LWS, however the habitats supported within this area of low ecological value comprising heavily grazed horse pasture. However, this area falls outside of the potential development area and would remain largely unaffected.

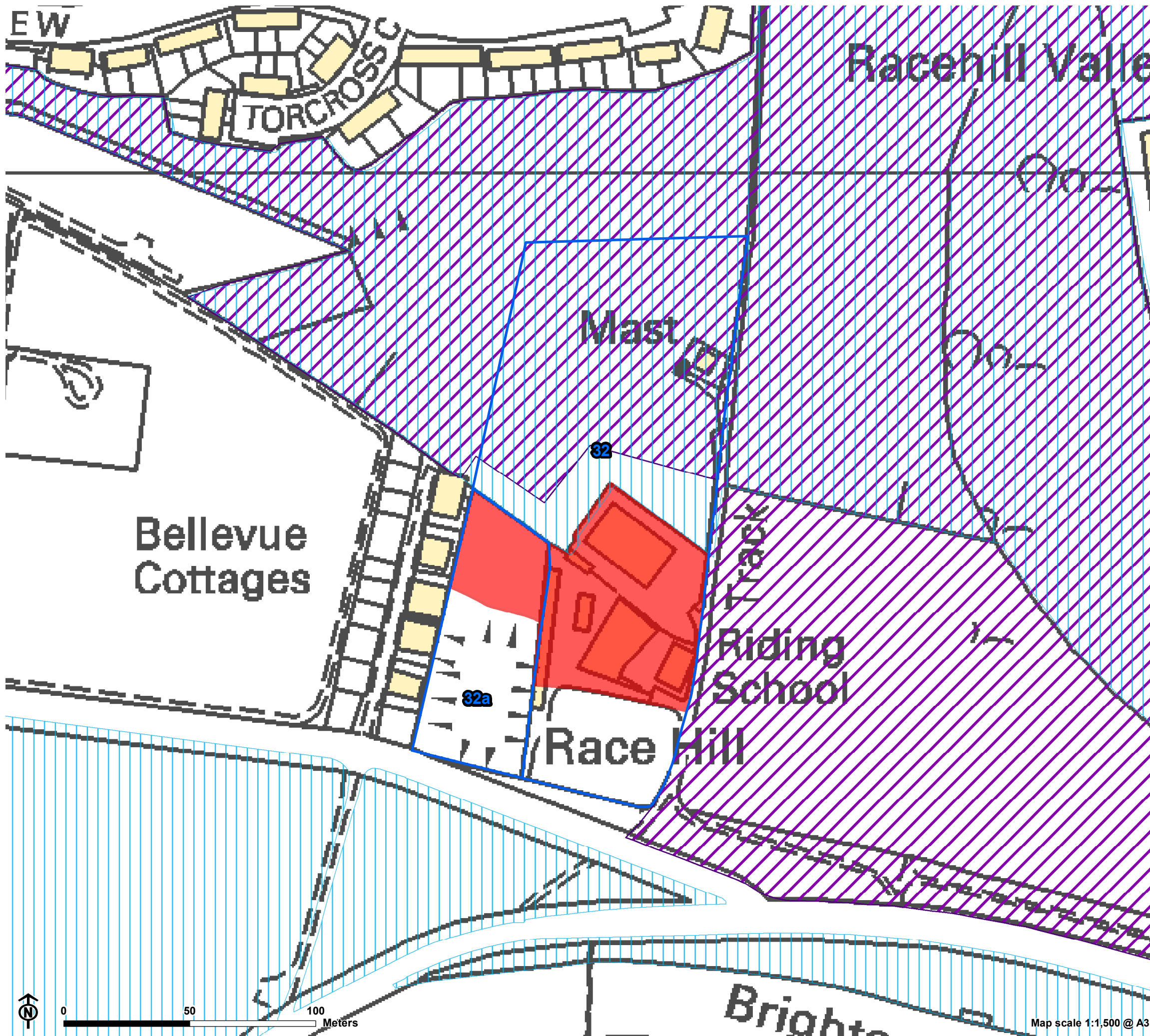
The proposed development will likely result in the loss of habitat of low ecological value, including buildings, bare ground and amenity grassland, which do not contribute to the value of the LNR and LWS.

Potential impacts will primarily relate to damage to adjacent habitat during the construction of the development, which can be mitigated for through appropriate best practice construction measures.

Habitats	The overall site is partially located within the Bevendean Down LNR, and Bevendean Horse Paddocks LWS and is comprised of grassland habitats with smaller areas of dense scrub, bare ground, tall ruderal vegetation and buildings. The site is primarily used as horse paddocks. The proposed development area itself is comprised of habitats of low ecological value, including buildings, bare ground and amenity grassland.
Species	Without detailed ecological surveys, it is not possible to confirm the value of the Study Area for notable and protected species. However given the habitats present it is highly unlikely that protected and/or notable species would be present and affected by works. The exception may include bats with further consideration required regarding the potential of the buildings to support bat roosts. The buildings may also support nesting birds which could be affected by any demolition works undertaken during the nesting season.

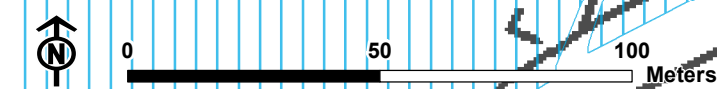
Ecological Avoidance, Mitigation and Enhancement Options	
Further surveys Detailed development proposals must be informed by an updated Extended Phase 1 Habitat Survey and detailed protected species survey in relation to bats and nesting birds to ensure that potential impacts are identified, and appropriate mitigation developed. Avoidance, Mitigation and Enhancement Options There is potential for the habitats within the proposed development area to support bat roosts. However, due to the nature of the habitats likely to be affected this would be restricted to buildings only and would not affect roosting bats using the surrounding habitats. Therefore, impacts would related to species known to roost in buildings and as a result there is a high degree of confidence that any proposed scheme can mitigate for the loss of any roosts through measures, such as the provision of replacement roosts, sensitive timing of works and exclusion of bats from roosts prior to demolition, and that the scheme has the ability to provide benefit to these bat species. Mitigation works would need to be undertaken under a Natural England European Protected Species licence. There is potential for the proposed development area to support nesting bird species, such as swifts, swallows and barn owl. The proposed scheme can mitigate for the loss of habitat for these species through appropriate measures, such as sensitive timing of works and under an ecological watching brief. It is also achievable for any proposed development to provided targeted enhancement measures to provide benefit for these bird species. Measures to prevent harm to reptiles, such as translocation from the potential development area to a receptor site which has been suitably enhanced to support the translocated population (ideally within the Study Area). If present, similar mitigation measures may be required to address impacts on great crested newt under a Natural England European Protected Species licence. Demolition works may need to consider the potential for nesting birds, with works timed to avoid impacts on nesting birds. Development at this location to facilitate ecological enhancement and management of habitats in the wider area, for example with financial contributions to support the enhanced management of habitats in the north of the site, the designated LNR and LWS. In addition, best construction practice will need to be assured, as detailed within a Construction and Environmental Management Plan or similar, to avoid contamination and disturbance impacts of retained habitats. Measures to prevent impacts on badger including sensitive timing of works in the vicinity of setts (and potentially under NE licence) and best practice construction measures. Enhancement of habitat outside the potential development area to provide additional opportunities for species impacted by the proposals, such as invertebrates. Sensitive design of any external lighting to minimise lightspill to adjacent habitats Long-term management of habitats should be detailed in a Landscape and Habitat Management Plan	

(LHMP) or similar, including any newly created as well as retained habitats to ensure long-term viability of such habitats. The LHMP should also detail measures to protect, enhance and manage the wider Benendean Down LNR and Bevendean Horse Paddocks LWS, and any LHMP should also include remedial measures should a decline in habitat quality or quantity be recorded.

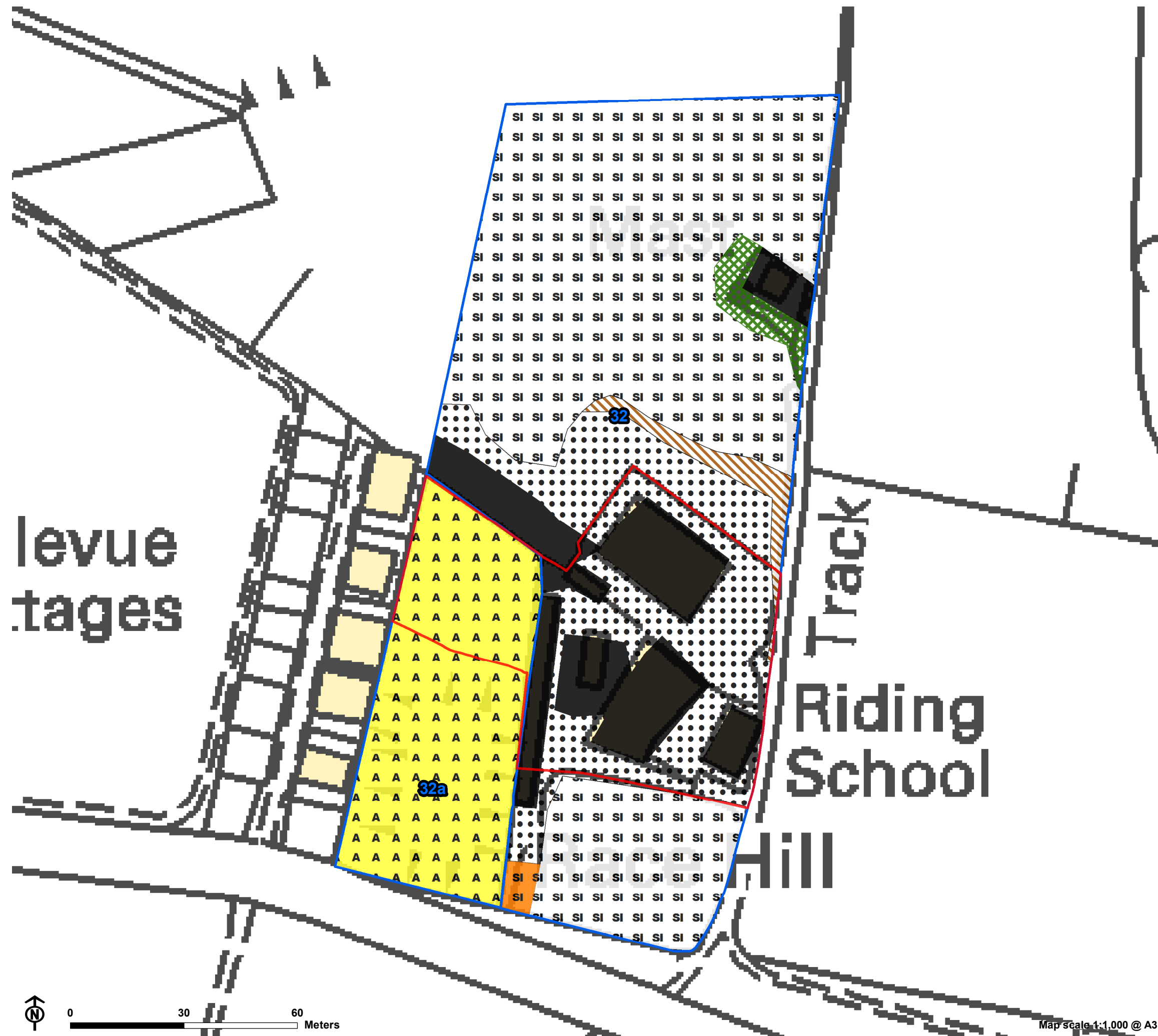


Designated Sites - Site 32/32a

- Site boundary
- Local plan housing site
- Local Nature Reserve
- Local Wildlife Site



Phase 1 Habitat Survey Map - Site 32/32a



- Site boundary
- Local plan housing site
- Phase 1 habitat**
- A2.1 Scrub - dense/continuous
- B2.2 Neutral grassland - semi-improved
- B6 Poor semi-improved grassland
- C3.1 Other tall herb and fern - ruderal
- A A J1.2 Cultivated/disturbed land - amenity grassland
- J3.6 Buildings
- J4 Bare ground

Appendix 5: Site 33 – Land north of Warren Road (Ingleside Stables): Ecology Assessment

Ecological Assessment: new survey of Site 33

Ecological Baseline

Biological Records

There are no internationally or nationally designated sites within or adjacent to the site.

The site lies adjacent and directly to the south of Bevendean Down LNR. The LNR is designated for its rich chalk grassland, which supports species such as Adonis blue butterfly, orchids and hornet robber fly. Additionally, the majority of the site lies within Bevendean Horse Paddocks LWS, as does the majority of the potential development area allocated for housing. The LWS is designated for semi-improved pasture and scrub, and also supports hornet robber fly and the largest population of common frog in the city.

Whitehawk Hill LNR lies within 1km to the south of the site, and a further 8 LWSs lie within 1km.

Records of protected and/or notable species identified within 1km of the site are not limited to, but include:

- Great Crested Newt.
- Common lizard.
- Common frog.
- Red star thistle.
- Sea knotgrass.
- Bluebell.
- Eye bright.
- Small blue.
- White letter hairstreak.
- Small heath.

Habitat Description (see Figure 13.1)

Poor Semi-improved Grassland

Poor semi-improved grassland was recorded in areas grazed by horses. The grassland present within the eastern part of the site was grazed and comprised areas of bare ground with frequent species associated with disturbed ground including dock sp., ribwort plantain and occasional pineapple weed.

The poor semi-improved grassland in the south and west of the site was dominated by coarse grass species including perennial rye, white clover and ribwort plantain.

Amenity Grassland

Amenity grassland was recorded in the eastern part of the site. This had been recently mown at the time of the survey and it is assumed it is relatively regularly mown as part of maintenance for the horse paddocks. Species included perennial rye-grass, dandelion, ribwort plantain and bristly ox-tongue

Semi-Broadleaved Woodland

A small area of semi-natural broadleaved woodland was located in the north west of the site, this was dominated by semi-mature sycamore with frequent elder. Occasional ash, dog rose and bramble was also noted.

Buildings and hard standing

Buildings and associated hard standing, including areas of bare ground, were located in the centre of the site which comprised the horse paddocks.

Fauna

Potential was noted for the following protected or notable species to be present within the Study Area:

- Bats – given the type of buildings present on the site, including low wooden stables and metal farm buildings, it is unlikely that opportunities are provided for bats to roost.
- Birds - given the types of buildings present, including low woodland stables, there is potential for nesting bird species, such as swifts, swallows and barn owl to be present.

Reptiles, badgers and dormice are less likely to be present within the site due sub-optimal habitats. Great crested newts are unlikely to be present within the site due to the lack of water bodies within 500m of the Study Area (as identified from OS base mapping; further investigation would be required). The habitats did not support features which would be likely to provide opportunities for notable invertebrate species, with low floristic diversity and heavily managed grassland habitats.

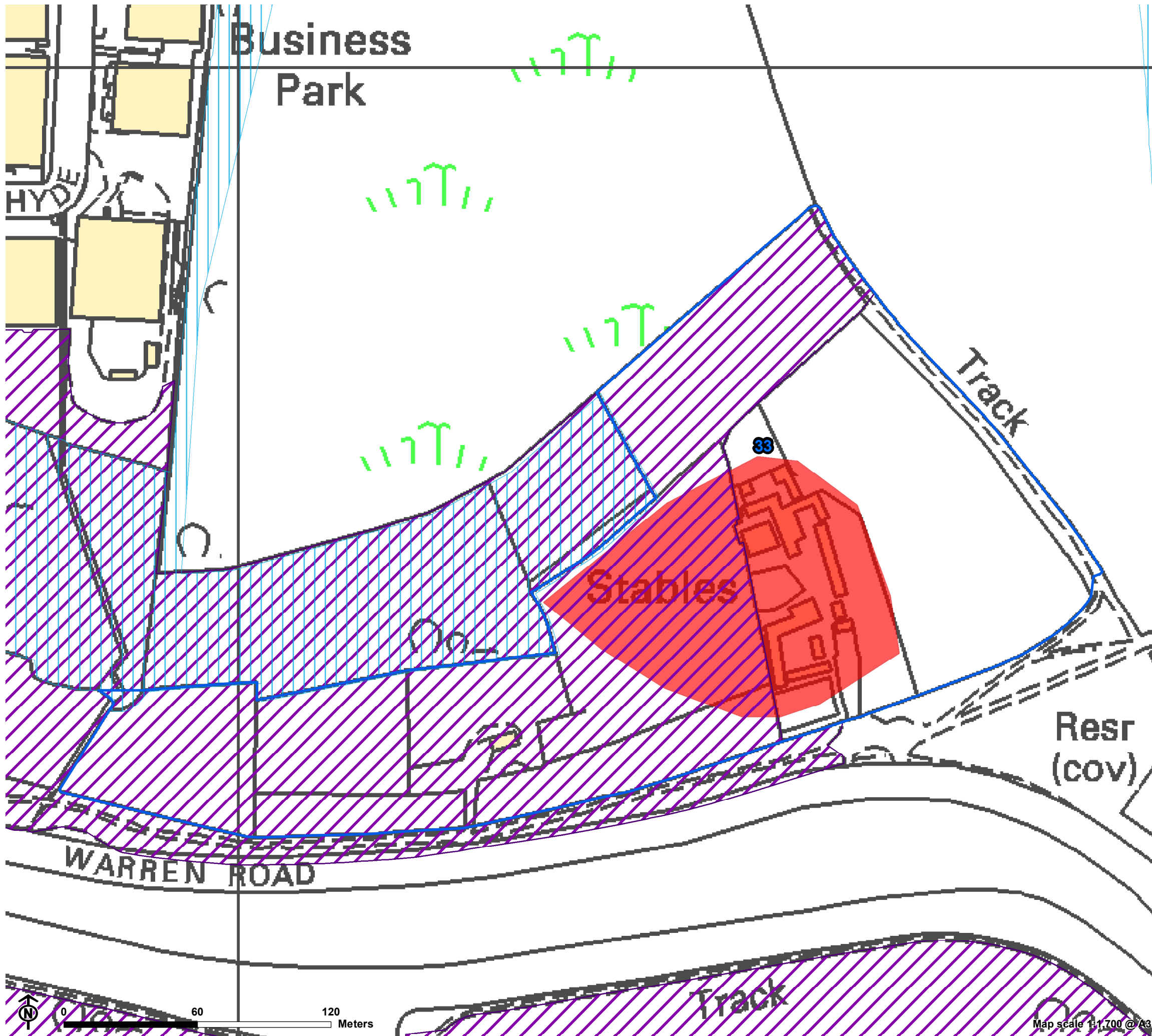
Ecological Appraisal

Designated Sites	The proposed development area is partially located within the Bevendean Horse Paddocks LWS, which is designated for semi-improved pasture and scrub, and also supports hornet robber fly and the largest population of common frog in the city. In addition, the proposed development area is situated adjacent to the Bevendean Down LNR. The LNR is designated for its rich chalk grassland, which supports species such as Adonis blue butterfly, orchids and hornet robber fly. Proposed development will result in the direct loss of a small proportion of the LWS. The habitats present include poor semi-improved grassland and buildings, which are not considered to be key features of the LWS.
Habitats	Habitats through the site were of low ecological value, with those within the potential development area including poor-semi-improved grassland, bare ground and buildings. Loss of these habitats would not result in a notable impact on the ecology of the wider area.

Species	It is not possible to confirm the value of the site for notable and protected species. However given the habitats present it is unlikely that protected and/or notable species would be present in significant numbers populations and affected by works. The exception may include bats with further consideration required regarding the potential of the buildings to support bat roosts. The buildings may also support nesting birds which could be affected by any demolition works undertaken during the nesting season. Low numbers of reptiles may be presents in areas of longer grass.
Ecological Avoidance, Mitigation and Enhancement Options	
Further surveys Detailed development proposals must be informed by an updated Extended Phase 1 Habitat Survey and detailed protected species survey to ensure that potential impacts are identified, and appropriate mitigation developed. Detailed protected species surveys will include, but not necessarily limited to bats, badger and reptiles. Avoidance, Mitigation and Enhancement Options The allocated site comprises a relatively small area of the LWS, with other parts of the LWS being of higher ecological value, comprising grassland with a higher floristic diversity and areas of habitat such as scrub and woodland which has potential to support protected and notable species. Mitigation would be required for the partial loss of habitat and area of the LWS, and also a commitment to the enhancement of retained habitats and provision of Biodiversity Net Gain within the site providing significant enhancements secured through long term management of the site. Mitigation and enhancement opportunities for this site could include, but are not limited to: Long-term management of habitats should be detailed in a Landscape and Habitat Management Plan (LHMP) or similar, including any newly created as well as retained habitats to ensure long-term viability of such habitats. Any LHMP should also include remedial measures should a decline in habitat quality of quantity be recorded. Sustainable development, such as carbon neutral housing which also provides opportunities for protected species including green roofs, green walls and SUDS. Interpretation boards and education opportunities to ensure residents understand the importance of protecting sensitive habitats and species, in particular those within the adjacent LNR and LWS. Best construction practice will need to be assured, as detailed within a Constructuion and Environmental Management Plan (CEMP) or similar, to avoid contamination and disturbance impacts. Other mitigation or enhancement opportunities may include incorporation of green infrastructure within the development to provide opportunities for wildlife, such as green roofs or walls, SUDS, wildlife-friendly planting (native species or those providing known benefits to wildlife, such as species of benefit for pollinators), and incorporation of nesting/roosting opportunities for birds and bats. If notable or protected species are confirmed as present, mitigation requirements may include: • Timing of works to avoid impacts on nesting birds. • If bat roosts are found and cannot be retained a suite of suitable mitigation measures would be required including potentially provision of replacement roosts and proceeding with works under a Natural England licence. • If dormouse are present a suite of suitable mitigation measures would be required, including habitat creation elsewhere, and works to proceed under NE licence; • If great crested newt are present (in terrestrial phase only) a suite of suitable mitigation measures would be required, including habitat creation elsewhere, and works to proceed under NE licence. • Measures to prevent harm to reptiles, such as translocation from the potential development area	

to a receptor site which has been suitably enhanced to support the translocated population (ideally within the wider site).

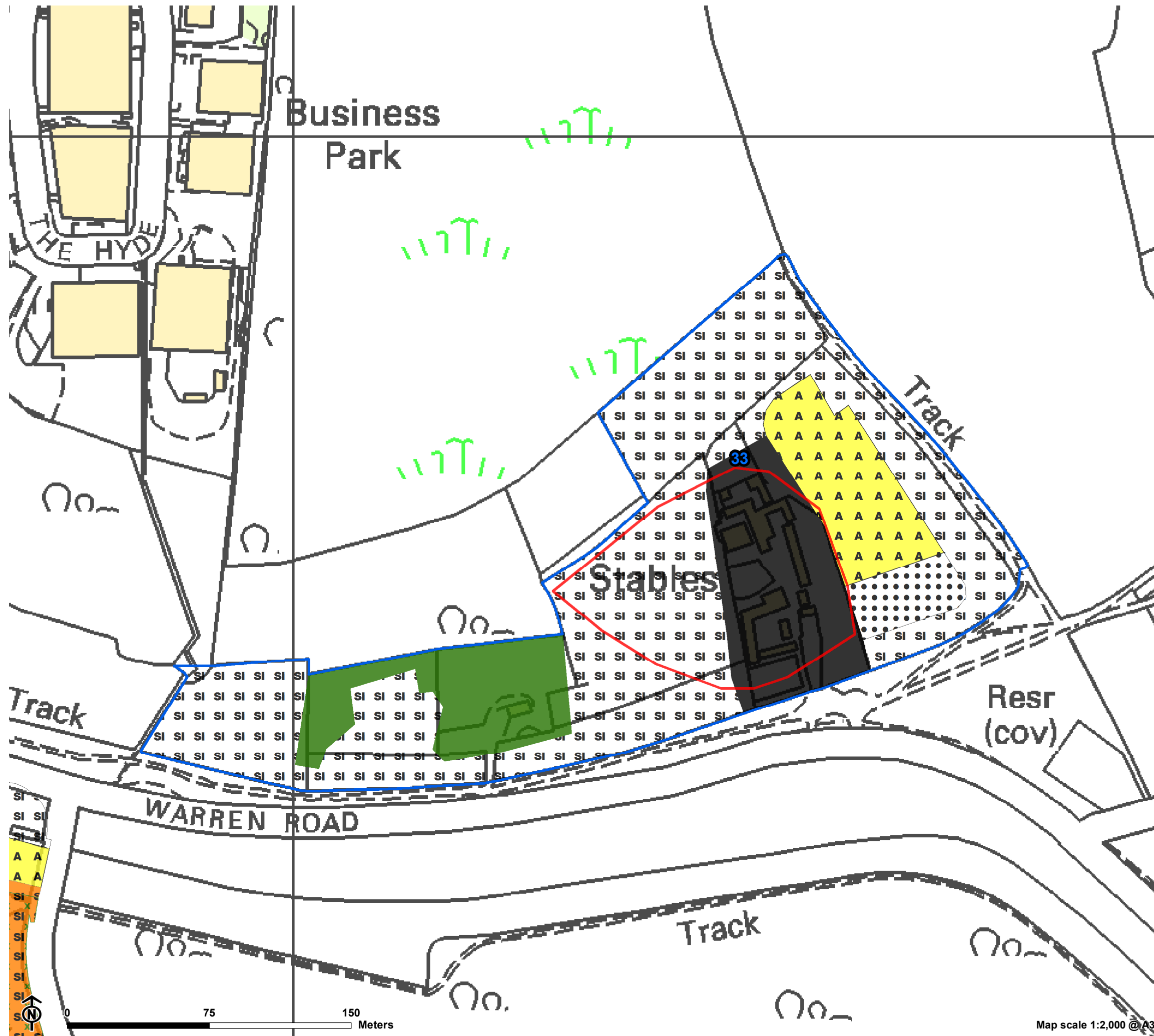
- Measures to prevent impacts on badger including sensitive timing of works in the vicinity of setts (and potentially under NE licence) and best practice construction measures.
- Enhancement of habitat outside the potential development area to provide opportunities for species impacted by the proposals, such as invertebrates or notable plant species. In particular those cited within the LNR and LWS designations which lie adjacent.
- Sensitive design of any external lighting to minimise lightspill to adjacent habitats.
- Provision of ponds to provide suitable habitat for amphibians, such as frogs.
- Provision of nesting structures for target species, such as swifts and swallows.
- Species specific measures to be incorporated into LHMPs created for the development, and to have due consideration in the design of any housing (including suggested enhancement options such as green roofs for example).



Designated Sites - Site 33

- Site boundary
- Local plan housing site
- Local Nature Reserve
- Local Wildlife Site

Phase 1 Habitat Survey Map - Site 33



- Site boundary
- Local plan housing site
- Phase 1 habitat**
- A1.1.1 Broadleaved woodland - semi-natural
- A2.2/B2.2 Neutral grassland - semi-improved with scattered scrub
- B2.2 Neutral grassland - semi-improved
- B6 Poor semi-improved grassland
- J1.2 Cultivated/disturbed land - amenity grassland
- J3.6 Buildings
- J4 Bare ground

Appendix 6: Species list

Species List

Adonis blue *Lysandra bellargus*
Apple *Malus* sp
Ash *Fraxinus excelsior*
Autumn hawkbit *Scorzoneroides autumnalis*
Bamboo *Bambusoideae*
Basil-thyme *Clinopodium acinos*
Bastard-toadflax *Comandra umbellata*
Beech *Fagus sylvatica*
Bird cherry *Prunus avium*
Bird's-foot trefoil *Lotus corniculatus*
Bittersweet *Solanum dulcamara*
Black horehound *Ballota nigra*
Black medick *Medicago lupulina*
Blackthorn *Prunus spinosa*
Bladder campion *silene vulgaris*
Bloody cranesbill weevil *Zacladus exiguus*
Blue fleabane *Erigeron acer*
Bramble *Rubus fruticosus* agg.
Bristly oxtongue *Picris echioides*
Broad-everlasting pea *Lathyrus latifolius*
Broad-leaved willowherb *Epilobium montanum*
Brome *Bromus* sp
Buff ermine moth *Spilosoma luteum*
Bulbous meadow-grass *Poa bulbosa*
Burdock *Arctium* sp
Butterfly-bush *Buddleja davidii*
Bythinian vetch *Vicia bithynica*
Canadian goldenrod *Solidago Canadensis*
Cat's ear *Hypochaeris radicata*
Chalk carpet moth *Melanthia procellata*
Chalk eyebright *Euphrasia pseudokernerii*
Chalk milkwort *Polygala calcarea*
Cherry *Prunus* sp
Cherry laurel *Prunus laurocerasus*
Cinnabar moth *Tyria jacobaeae*
Cock's-foot *Dactylis glomerata*

Common agrimony *Agrimonia eupatoria*
Common bent *Agrostis stolonifera*
Common centaury *Centaureum erythraea*
Common daisy *Bellis perennis*
Common eyebright *Euphrasia spp*
Common daisy *Bellis perennis*
Common figwort *Scrophularia nodosa*
Common knapweed *Centaurea nigra*
Common lizard *Zootoca vivipara*
Common mallow *Malva sylvestris*
Common nettle *Urtica dioica*
Common orache *Atriplex patula*
Common Toad *Bufo bufo*
Common toadflax *Linaria vulgaris*
Common vetch *Vicia sativa*
Corn bunting *Emberiza calandra*
Cornfield knotgrass *Polygonum rurivagum*
Cornflower *Centaurea cyanus*
Corn parsley *Petroselinum segetum*
Cotoneaster *Cotoneaster sp.*
Couch-grass *Elytrigia repens*
Cow parsley *Anthriscus sylvestris*
Clover head weevil *Hyperapunctata Fabricius*
Creeping bent-grass *Agrostis stolonifera*
Creeping buttercup *Ranunculus repens*
Creeping thistle *Cirsium arvense*
Crossbill *Loxia*
Cut-leaved selfheal *Prunella laciniata*
Dandelion *taraxacum officinale* agg.
Dense-flowered fumitory *Fumaria densiflora*
Devil's bit scabious *Succisa pratensis*
Dingy skipper *Erynnis tages*
Dock *Rumex spp*
Dog rose *Rosa canina*
Dog's mercury *Mercurialis perennis*
Dogwood *Cornus sanguinea*
Dusky thorn moth *Ennomos fuscantaria*
Early sipder orchid *Ophrys sphegodes*
Elder *Sambucus nigra*
Elm *Ulmus sp*

Elm *Ulmus procera*
European hedgehog *Erinaceus europaeus*
Eyebright *Euprasia nemerosa* agg
False oat-grass *Arrhenatherum elatius*
Fennel *Foeniculum vulgare*
Field madder *Sherardia arvensis*
Field maple *Acer campestre*
Field scabious *Knautia arvensis*
Field speedwell *Veronica persica*
Fleabane *Pulicaria dysenterica*
Freckled dapperling *Lepiota aspera*
Frosted orache *Atriplex laciniata*
Garden tiger moth *Arctia caja*
Giant knotweed *Fallopia sachalinensis*
Golden melilot *Melilotus altissimus*
Grand-toothed hawkweed *Hieracium grandidens*
Great willowherb *Epilobium hirsute*
Greater plantain *Plantago major*
Grey heron *Ardea cinerea*
Grizzled skipper *Pyrgus malvae*
Ground ivy *Glechoma hederacea*
Groundsel *Senecio vulgaris*
Harlequin ladybird *Harmonia axyridis*
Hawkbait sp. *Leontodon*
Hawthorn *Crataegus monogyna*
Hazel *Corylus avellana*
Hawksbeard *Crepis capillaris*
Heath bedstraw *Galium saxatile*
Hedge bindweed *Calystegia sepium*
Hedge mustard *Sisymbrium officinale*
Hedge parsley *Torilis arvensis*
Hemp agrimony *Eupatorium cannabinum*
Hoary stock *Matthiola incana*
Hobby *Falco subbuteo*
Hogweed *Heracleum sphondylium*
Holly *Ilex aquifolium*
Hornet robberfly *Asilus crabroniformis*
Horse chestnut *Aesculus hippocastanum*
House martin *Delichon urbicum*
Hybrid bluebell *Hyacinthoides non-scripta* x *hispanica*

Imperforate St. John's-wort *Hypericum maculatum*
Ivy *Hedera helix*
Japanese knotweed *Fallopia japonica*
Lackey moth *Malacosoma neustria*
Lady's bedstraw *Galium verum*
Large-leaved lime *Tilia platyphyllos*
Laurel *Prunus laurocerasus*
Lavender *Lavandula sp*
Lesne's earwig *Forficula lesnei*
Lesser hawkbit *Leontodon saxatilis*
Leyland cypress *Cupressus × leylandii*
Lords-and Ladies *Arum maculatum*
Lucerne *Medicago sativa ssp sativa*
Meadow oat-grass *Avenula pratensis*
Mint *Mentha sp*
Mugwort *Artemisia vulgaris*
Mullein *Verbascum Thapsus*
Narrow-leaved everlasting pea *Lathyrus sylvestris*
Nettle-leaved goosefoot *Chenopodium murale*
Oak *Quercus robur*
Ox-eye daisy *Leucanthemum vulgare*
Peregrine falcon *Falco peregrinus*
Perennial rye-grass *Lolium perenne*
Perforate St. John's-wort *Hypericum perforatum*
Pineapple weed *Matricaria discoidea*
Pipistrelle bat *Pipistrellus sp*
Ploughman's spikenard *Inula conyzae*
Poppy root weevil *Stenocarus ruficornis*
Purple toadflax *Linaria purpurea*
Ragged-robin *Lychnis flos-cuculi*
Ragwort *Senecio jacobaea*
Red clover *Trifolium pratense*
Red bartsia *Odontites vernus*
Red dead nettle *Lamium purpureum*
Red fescue *Festuca rubra*
Red-shanked carder bee *Bombus ruderarius*
Red star thistle *Centaurea calcitrapa*
Red-tailed cuckoo bumblebee *Bombus lapidarius*
Red valerian *Centranthus ruber*
Red-veined darter *Sympetrum fonscolombii*

Round-headed rampion *Phyteuma orbiculare*
Ribwort plantain *Plantago lanceolata*
Roesel's bush cricket *Metrioptera roeselii*
Rough hawkbit *Leontodon hispidus*
Rowan *Sorbus aucuparia*
Russian vine *Fallopia baldschuanica*
Selfheal *Prunella vulgaris*
Serotine bat *Eptesicus serotinus*
Scarlet pimpernel *Anagallis arvensis*
Scarlet tiger moth *Callimorpha dominula*
Scots pine *Pinus sylvestris*
Shaded broad-bar moth *Scotopteryx chenopodiata*
Sickle medick *Medicago sativa* ssp.
Silver spotted skipper *Hesperia comma*
Silverweed *Potentilla anserina*
Slow worm *Anguis fragilis*
Small blue *Cupido minimus*
Small cudweed *Filago minima*
Small fumitory *Fumaria purpurea*
Small heath *Coenonympha pamphilus*
Smaller cat's-tail *Phleum bertolonii*
Smooth hawk's-beard *Crepis capillaris*
Spear thistle *Cirsium vulgare*
Spindle *Euonymus europaeus*
Spurge *euphorbia* sp
Stiff saltmarsh-grass *Puccinellia rupestris*
Stonecrop *Sedum* sp.
Strawberry *Fragaria* sp
Swift *Apus apus*
Sycamore *Acer pseudoplatanus*
Tansy *Tanacetum vulgare*
Teasel *Dipsacus fullonum*
Timothy *Phleum pratense*
The ant-like stone beetle *Stenichnus pusillus*
The bee *Melitta tricincta*
The beetle *Malthinus balteatus*
The bug *Deraeocoris olivaceus*
The beetle *Trichosirocalus rufulus*
The drilid beetle *Drilus flavescens*
The fly *Zophomyia temula*

The fruit fly *Urophora cuspidata*
The hoverfly *Volucella inanis*
The leaf beetle *Cryptocephalus bilineatus*
The leaf beetle *Longitarsus ballotae*
The leaf beetle *Longitarsus parvulus*
The leaf beetle *Podagrica fuscipes*
The mason bee *Osmia (Neosmia) bicolor*
The mirid bug *Lygus pratensis*
The moth *Adscita globulariae*
The tumbling flower-beetle *Mordellistena neuwaldeggiana*
The wasp *Mutilla europaea*
The weevil *Orthochaetes setiger*
The weevil *Protapion difforme*
The weevil *Trachyphloeus alternans*
The weevil *Trachyphloeus asperatus*
The weevil *Tychius schneideri*
Travellers joy *Clematis vitalba*
Tuberous pea *Lathyrus tuberosus*
Variegated yellow archangel *Lamium galeobdolon*
Vervain *Verbena officinalis*
Violet *Viola* sp
Viper's bugloss *Echium vulgare*
Vignia creeper *Parthenocissus quinquefolia*
Wall barley *Hordeum murinum*
Wall butterfly *Lasiommata megera*
Wasp spider *Argiope bruennichi*
Weasel's-snout *Misopates orontium*
Wild carrot *Daucus carota*
Wild marjoram *Origanum vulgare*
Wild mignonette *Reseda lutea*
Wild privet *Ligustrum vulgare*
Winter heliotrope *Petaistes fragrans*
Wheatley elm *Ulmus minor 'Sarniensis'*
White dapperling mushroom *Leucoagaricus leucothites*
White dead nettle *Lamium album*
Whitebeam *Sorbus aria*
White clover *Trifolium repens*
White letter hairstreak *Satyrium w-album*
Wood avens *Geum urbanum*
Wood false brome *Brachypodium sylvaticum*

Wormwood *Artemisia sp*
Wych elm *Ulmus glabra*
Yarrow *Achillea millefolium*
Yellow rattle *Rhinanthus minor*
Yellow vetch *Vicia lutea*
Yellow vetchling *Lathyrus aphaca*
Yew *Taxus baccata*
Yorkshire fog *Holcus lanatus*

Report produced by LUC

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