

Ecology Technical Note: Reasons for Refusal

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Introduction

RPS Consulting Services Ltd (RPS) was commissioned by Brookgate Land Ltd (Brookgate) to undertake ecology surveys of Cambridge North, the Appeal Site, to help inform the proposed redevelopment of the Site. These surveys have been undertaken over a number of years, across all or parts of the Cambridge North Site (see Appendix 2 - Bat Hibernation Survey Report, Figure 1 for Site boundary and building B1 location). The Ecological Assessment (EclA) submitted in May 2022 was based on a range of surveys, including for birds and bats, the following:

- Breeding Bird Survey 2018
- Breeding Bird Scoping Survey 2019
- Bat Activity Survey 2018
- Preliminary Bat Roost Assessment 2019
- Bat Emergence Survey 2020

Scope

The scope of the ecological surveys was subject to consultation in 2021 and February 2022. Subsequent to this, it was agreed in May 2022 to extend the scope and that an updated breeding bird survey should be undertaken pre-determination, to update the survey baseline and particularly survey for black redstart.

Subsequently, further consultation on scope in July and August 2022 didn't reach agreement on the required scope needed pre-determination, but the discussions focussed on reptiles and bats. Therefore, in August 2022 RPS agreed with Brookgate that further reptile and bat surveys should be undertaken in the 2022 season on a precautionary basis with an update report provided.

The Ecology Survey Report Update was submitted in October 2022 and included:

- Reptiles
- Bat roost assessment
- Bat activity and static monitoring
- Breeding Birds

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The Ecological Assessment

The assessment of ecological value and determination of effect significance has been undertaken with reference to Chartered Institute of Ecology and Ecological Management (CIEEM) Guidelines for Ecological Impact Assessment (2019). The EclA assessed the likely significant effects resulting from the construction and operation of the proposed development on ecology and nature conservation.

This ecological assessment was reviewed and updated within the Ecology Survey Report Update (Oct 2022) in relation to the findings from the surveys.

The Ecology Survey Report Update (Oct 2022) has been slightly updated and re-issued as Appendix 1 to this Technical Note.

Reptiles

For reptiles no additional records were noted in the surveys, so there are no changes to the conclusions of the Environmental Statement (ES) and no further mitigation measures are required for reptiles.

Bats

Building B1 is located north of Cowley Road within the area of the proposed Wild Park. It is within the outline application area, but landscape details have been submitted with the application. It is shown on Figure 1 in the Bat Hibernation Survey Report (RPS March 2023; issued as Appendix 2 to this Technical Note).

The bat roost assessment survey identified Building B1 has moderate bat roost potential due to these features and its location within good bat habitat. The northern rooms have moderate potential to be used as a hibernation roost and required internal inspections and static monitoring between December and February. These have now been undertaken between December 2022 and February 2023 (See Appendix 2) and no bat activity was recorded.

The bat survey in August 2022 also concluded that this building will require 2 emergence surveys to determine presence/absence of bat day roosts on a precautionary basis before demolition of this building. These need to be undertaken between May and August. Whilst only required before demolition to check for the presence of bats on a precautionary basis, these surveys are planned for May 2023 which in line with the latest best practice guidelines and recommendations published by the Bat Conservation Trust in Bat Survey: Good Practice Guidelines (BCT, 2019) is the earliest opportunity to undertake them. These surveys and assessment information will be provided prior to the inquiry, despite this not being necessary in order to determine the application. The interim report with the 2nd of May survey results is attached as Appendix 5. No emergence from B1 was recorded in the first survey on the 2nd of May.

For bats the survey results so far are in line with the baseline assessment within the ES chapter. The results suggest that the site is not used by large numbers of foraging or commuting bats. Overall the site is considered to be of local value for foraging bats. The northern section will include an attenuation pond and grassland which will provide suitable habitat for invertebrates, providing a food source for foraging bats. The lighting within the Wild Park is not yet specified in detail but the principle is to have low-level bollard lighting only along the footpath and log trail and the associated seating. The remainder of the Wild Park will be unlit to allow future foraging of bats. The detail of the lighting design is subject to further approval post-determination. Lighting along the guided busway will be screened by the tree belt and the strengthen underplanting to re-enforce a dark corridor beyond the site boundary. Along the eastern boundary the continuation of the ivy screen and other planting will also reduce light spill beyond the site boundary.

Given the location of the site within Cambridge City, and the low number of bats recorded, it is considered that the loss of the scrub and trees on site will not have a significant adverse impact on the local bat population. Suitable habitat is being enhanced or re-created on site for foraging and commuting bats to

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mitigate for any possible habitat loss impact. This assessment within the Ecology Survey Report Update is in line with the assessment within the ES chapter.

Therefore this additional information has no implications for the predicted effects or proposed mitigation as reported in the ES. The May 2023 bat survey report will update the assessment for bats as necessary.

Birds

For birds, the survey results included a single breeding pair of black redstart were recorded breeding off-site to the east and foraging and singing on site. Black redstart appear to require many vertical features whether they are buildings gantries, flood defence structures, or gasometers. Such structures correlate to the gorges and cliff faces, which are their natural habitat in continental Europe, and also provide high singing posts. Some of these features are found at Cambridge North with high song posts, good feeding opportunities and these features will be retained, or enhanced or re-created through the phased construction of the development.

However, despite the recording of the species, the bird assemblage is still considered to be of no more than local importance. This assessment within the Ecology Survey Report Update is in line with the assessment within the ES chapter. Therefore this additional information has no implications for the predicted effects or proposed mitigation as reported in the ES.

Mitigation

Mitigation measures are set out within the landscape proposals in the ES to enhance the site for bats and birds include the production of a landscape and ecology management plan (LEMP) to be approved by the LPA. The LEMP will include management of vegetated areas in an ecologically sensitive manner and maintenance of bird and bat boxes. This LEMP will incorporate requirements arising from the update surveys for birds and bats, including:

- Use of flower and nectar rich planting in landscaping and habitat creation;
- Restoration of open mosaic habitat (OMH) within a new high value natural greenspace (Wild Park);
- Provision of bird and bat boxes in suitable locations in line with Greater Cambridgeshire Biodiversity SPD (2022) requirements (precise locations and numbers to be determined in the LEMP);
- The design of lighting within the Wild Park to allow future foraging of bats and lighting on the western boundary of the site and along the guided busway will also be sensitively designed;
- Species rich green or open mosaic habitat (OMH) roofs on site; and
- These measures will also support a range of woodland and urban bird species and black redstart recorded (in 2022) which can also benefit from the provision of open fronted nest boxes, particularly in some of the quieter green roof spaces.

BNG and Tree Numbers/Ecological Design Strategy/Tree Strategy

RPS was commissioned by Brookgate to produce an updated Ecological Design Strategy (EDS) to cover the whole of the Cambridge North area. This area brings together the Cambridge North station environs, the developments built out or under construction around the station, the Appeal Scheme and also the remaining land north of the realigned Cowley Road outside of the Appeal Scheme. The EDS and the Tree Strategy for the Appeal Scheme are broadly aligned to support the aim of creating a flower-rich/nectar-rich environment, good for the invertebrate assemblage and other biodiversity.

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The EDS though covers the whole Cambridge North sidings area and also includes what is already present within this wider area. An updated Phasing and resourcing OMH material plan is attached as Appendix 3.

There is a small discrepancy in tree numbers between the BNG Calculator and the Tree Strategy – these are updated below. The number of ‘medium’ sized trees is increased in the BNG Calculator from 109 to 143; the number of ‘small’ trees reduced from 159 to 147 to align with the landscaping. A total of 375 new trees are to be planted. A number of changes to the drainage strategy has also led to a slight increase in permanent open water habitat. This small increase in trees and the increase in open water has led to an increase in the habitat units created overall from a total net unit change (gain) from +32.64 units (66.79%) to +39.22 units (80.27%). The updated BNG Calculator is attached as Appendix 4.

The Tree Strategy also includes native planting of tree/shrub species within a mixed native hedge and woodland understorey planting to strengthen the guided busway verge tree belt in line with the EDS requirements. Within the Wild Park further native tree/shrub planting is planned, selectively interplanting within the existing scrub mosaic, again in line with the EDS.

Urban tree helper						
Tree size	Number of trees and area (ha) for each condition state					
	Poor	Area	Moderate	Area	Good	Area
Small		0.0000	147	0.5982		0.0000
Medium	3	0.1099	143	5.2374		0.0000
Large		0.0000	85	6.4953		0.0000
Total	3	0.1099	375	12.3309	0	0.0000

CN Phase 2 tree numbers & drainage amenity		
Headline Results		Return to results menu
On-site baseline	Habitat units	48.86
	Hedgerow units	0.00
	River units	0.00
On-site post-intervention <small>(including habitat retention, creation & enhancement)</small>	Habitat units	88.08
	Hedgerow units	0.27
	River units	0.00
On-site net % change <small>(including habitat retention, creation & enhancement)</small>	Habitat units	80.27%
	Hedgerow units	100.00%
	River units	0.00%
Off-site baseline	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention <small>(including habitat retention, creation & enhancement)</small>	Habitat units	0.00
	Hedgerow units	0.00
	River units	0.00
Total net unit change <small>(including all on-site & off-site habitat retention, creation & enhancement)</small>	Habitat units	39.22
	Hedgerow units	0.27
	River units	0.00
Total on-site net % change plus off-site surplus <small>(including all on-site & off-site habitat retention, creation & enhancement)</small>	Habitat units	80.27%
	Hedgerow units	100.00%
	River units	0.00%
Trading rules Satisfied?	Yes ✓	

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Natural England Consultation Response (28 Oct 2022)

The application includes on-site the Wild Park area of enhanced and retained OMH and other habitats. This area is designed to be a high quality alternative natural green space.

More widely the habitats and green spaces on the Site are designed to align with the wider Green Infrastructure strategy within the AAP and the city.

Additional, direct access through Bramblefields Local Nature Reserve has been avoided in the scheme design to reduce pressure on this adjacent site.

Conclusion

The EclA assessment was reviewed as part of the Survey Update Report (Oct 2022) which concludes:

These survey results from summer 2022 are in line with the baseline assessment within the ES chapter. Therefore this additional information has no implications for the predicted effects or changes to proposed mitigation as reported in the ES.

The table below sets out the detail of the comments raised by the Council in its Committee Report and the RPS response, together with any further action required.

RfR Ref no.	LPA comments	RPS response	Further actions
15.16	For the application information to be sufficient the following would be required: - Confirmation of the location of B1 - Amend report to show locations of surveyed buildings. - Complete recommended surveys prior to determination of application if B1 is located within the full application Site.	The location of B1 has been confirmed and it sits in the landscaping proposals of the outline application. The outstanding 'summer' emergence surveys will be completed in early May (planned for the 2nd and 15th of May) and reported prior to the inquiry.	RPS to undertake and report on emergence surveys in May 2023 and will, where necessary, update the assessment for bats. No emergence was recorded in the first survey on the 2 nd of May.
In Amendment Sheet	This building falls within the Wild Park area which is within the detailed landscape proposals within the outline application, not within the full application as per the report. As landscape is a matter for approval and is not a reserved matter, the additional bat surveys are still required to be submitted and conditions are not appropriate to require such surveys.		
15.17	.. the ES was not updated to take account of the updated surveys. Of particular concern are sections 4.4.13 to 4.4.20 which need to be updated to include the new bat survey information and provide an analysis of any new lighting that might be installed as this may have a measurable impact on bats regardless of the habitats created. This section should also include any roosting and licencing information once required surveys have been completed.	The Ecology Survey Report Update (Oct 2022) reviewed the ecological assessment, and the results did not change the assessment, mitigation requirements or conclusions.	The May 2023 bat survey report will, where necessary, update the assessment for bats. No emergence was recorded in the first survey on the 2 nd of May.

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RfR Ref no.	LPA comments	RPS response	Further actions
15.18	The updated bird surveys show that new bird species have been encountered therefore the analysis within the ES should be updated to take these species into account.	The Ecology Survey Update Report (Oct 2022) reviewed the ecological assessment, and the presence of black redstart breeding outside of the Site to the east was evaluated. Overall, there was no change to the likely significant effects and therefore no change to the conclusions, so there was no need to update the ES Chapter.	The LEMP when produced post-approval will incorporate specific nest box provision for black redstart.
15.19	Natural England has commented that the new housing development is unlikely to deliver sufficient level of access high quality green infrastructure to both 1) meet the needs of new residents and 2) avoid adverse recreational pressure impacts to the existing ecological network including statutorily designated sites and locally important sites such as Milton Country Park and Bramblefields Local Nature Reserve. Further information is required to address this issue and should include provision of alternative strategic accessible natural greenspace to meet the needs of the residents without further adverse impact on sensitive sites.	<p>Additional access through Bramblefields Local Nature Reserve has been avoided in the scheme design measures incorporated into the scheme design to avoid potential impacts.</p> <p>The habitats and green spaces on Site are designed to align with the wider Green Infrastructure strategy within the AAP and the city.</p> <p>The Wild Park area of enhanced and retained OMH and other habitats is designed to be a high quality alternative natural green space.</p>	The actions to mitigate any potential increase in visitor pressure within the LNR will be set out in the LEMP, if required.
15.22	<p>Clarification is required that the Biodiversity Net Gain Calculator (Urban Tree Helper) has been accurately populated based on the submitted Tree Strategy.</p> <p>Given that the urban tree planting represents approximately half of the 66% net gain in biodiversity, and that the intention is to “bank” biodiversity units for future possible development this is a significant part of the plan and clarity is essential. As the landscaping falls within the full application site and is not a reserved matter within the outline application the LPA must be assured that the Biodiversity Net Gain Plan can be delivered.</p>	The BNG Calculator has been updated (Dec 2022) to remove the off-site enhancements and the numbers of trees is corrected in this TN to align with the numbers in the Tree Strategy. Specifically the number of ‘medium-sized’ trees was increased in the calculator from 109 to 145.	A BNG condition will control submission and approach of a final BNG Delivery Plan to clarify final BNG units and the banking of surplus units created above the 20% threshold.
15.23	The EDS includes an Open Mosaic Habitat (OMH) Phasing Plan which is said to show the Site boundary. However, the full extent of the application boundary is not included in the plan, notably the residential element of the outline application is excluded (although it is referred to), this should be clarified.	An updated OMH Phasing Plan covers the whole wider CN Site. The application boundary requires updating and is attached as Appendix 3.	
15.24	Section 2.4.4 of the report outlines the conservation objectives and at bullet point 2 seeks to minimise the effects on existing population of protected and noteworthy species however bats are not included in this list and should be.	The consistent low activity levels of bats on Site means they are not considered noteworthy in the context of the Site. The Site is considered to provide limited suitability for foraging and commuting bats. Nevertheless the mitigation and enhancement proposals incorporate appropriate measures for bats.	The LEMP when produced post-approval will incorporate specific bat mitigation as appropriate, including lighting design in the Wild Park.

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15.25	Habitat based mitigation is identified in section 3.2 however the tree species within this section do not match those that appear in the Tree Strategy.	The EDS covers the whole of the wider CN Site and includes tree species that are already present within the Site boundary and elsewhere within the wider CN sidings site.	
15.26	The Protected Species Strategy at section 3.3 does not include any mention of bats in particular, how the lighting strategy will be designed to remove any measurable impact to the conservation status of commuting and foraging bats.	The consistent low activity levels of bats on Site means they are not considered noteworthy in the context of the Site. The Site is considered to provide limited suitability for foraging and commuting bats. Nevertheless the mitigation and enhancement proposals incorporate appropriate measures for bats.	
15.27	Enhancement measures are identified at 3.3.8 and 4.9 which include bat and bird boxes however no details are provided in terms of numbers.	The ES sets out that a range of nest box types will be included in the LEMP to support a wide range of species (sparrows, starlings, swifts and other hole-nesting species). Consideration will also be given to providing other more specialist boxes where appropriate. The number and location of bat and bird boxes will be set out in the LEMP and subject to agreement with the LPA.	The LEMP to be submitted and approved pursuant to a planning condition will incorporate specific bird and bat boxes numbers and locations to be agreed with the LPA.
15.28	Appendix 13.2 provides the current baseline measurement, for example at the northeast corner (adjacent to the railway line) there is currently 0.3 Lux of light spill. It does not measure what the future luminescence will be, nor does it mention the BTC guidance, nor does it mention bats or the impacts on ecologically sensitive areas. Therefore, it appears that there has been no ecological input into this document, this is possibly because the bat surveys in the northeast area hadn't been undertaken when it was written.	The consistent low activity levels of bats on Site means they are not considered noteworthy in the context of the Site. The Site is considered to provide limited suitability for foraging and commuting bats. Nevertheless the mitigation and enhancement proposals incorporate appropriate measures for bats.	The LEMP when produced post-approval will incorporate specific bat mitigation as appropriate, including lighting design in the Wild Park.
15.29	The Ecology and Biodiversity Chapter doesn't quote the guidance EDS says it does, nor does it incorporate the surveys or analysis of the ecological data. The main area of concern would be the northeast section along the railway line where there doesn't appear to be any current lighting. Chapter 13.2 shows an access road along this section with new lighting that has the potential to impact commuting bats. The updated bat surveys submitted state that the activity at the east of the site was the highest recorded on site (overall low to moderate bat activity). However, the updated surveys only assess the loss of habitat not the introduction of lighting, resulting in a lack of information to assess the impacts.	The consistent low activity levels of bats on Site means they are not considered noteworthy in the context of the Site. The Site is considered to provide limited suitability for foraging and commuting bats. Nevertheless the mitigation and enhancement proposals incorporate appropriate measures for bats.	The May 2023 bat survey report will update the assessment for bats, as necessary. The LEMP when produced post-approval will incorporate specific bat mitigation as appropriate, including additional bat boxes and lighting design in the Wild Park.
15.31	Section 4.16 Monitor and Remediation – monitoring must include that which is required by biodiversity net gain which will be for a period of 30 years. This section must be amended.	The LEMP will cover the full 30-year period	The LEMP, as controlled by condition, will incorporate specific monitoring requirements.

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Appendix 4

BNG Calculator: CN Phase 2 - updated trees & drainage 18 April 2023

