

Ecological Technical Note

Proposed Temporary Car Park, Green Park Village, Reading

August 2021, Revision B

1.0 Introduction

- 1.1 This technical note has been prepared by CSA Environmental on behalf of Berkeley Homes (Western) Ltd in relation to land south of Smallmead Road and the Green Park Village development (Phase 6) where a temporary contractor's car park is proposed. It summarises the results of an extended Phase 1 Habitat Survey undertaken to identify ecological constraints to the proposals and inform any necessary avoidance and mitigation measures.

Development proposals

- 1.2 A temporary car park is proposed within the Site to relocate current parking provision within Phase 6 of the Green Park Village development, and allow construction works in that area to continue.
- 1.3 A footpath access route will make use of an existing field access/bridge, with vehicular access to be brought from the east off Longwater Avenue. The parking area itself will be constructed with a Compacted Type 1 surface. Bulkhead lighting will be provided to provide periodic illumination of the area (further details given later in this report). The car park will be drained by a system of filter (French) drains, before being discharged to the northern water course.
- 1.4 The car park is intended for use over the next three years. Following this time it is proposed that the surfacing, fencing and drainage features are removed and the land returned to its pre-existing condition.

2.0 Methods

- 2.1 An extended Phase 1 Habitat Survey of the Site was undertaken by Kate Kibble MCIEEM on 13 January 2021, in order to assess the on-site habitats and their potential to support notable and protected species. The survey, encompassing the Site and immediately adjacent habitats that could be viewed. Previous knowledge of ecological constraints relevant to the Green Park Village development was used to provide additional context on potential constraints.
- 2.2 The Site visit was undertaken at a suboptimal year for botanical identification and assessment and this limitation is acknowledged within the following discussion. A short walkover was repeated on 11 June 2021 by Kate Kibble allowing additional information about the habitat to be collected.

- 2.3 Due to the scale and nature of the proposals, biological records were not requested from the Thames Valley Environmental Records Centre. However, publically available data on Local Wildlife Sites in Reading and West Berkshire was viewed as part of this assessment¹ as well as local information on notable habitats and species². The Multi-Agency Geographic Information for the Countryside (MAGIC) online database was also viewed for information on statutory designated sites and other habitat and species data (e.g. European Protected Species licences, Priority Habitats). Given the scale and nature of the proposals, a relatively small zone of influence is considered to apply, and desktop information has been reviewed within a c. 2km radius of the Site.

3.0 Baseline Ecological Conditions

Desktop Study

- 3.1 There are no international (e.g. SPA, SAC, Ramsar), national (e.g. SSSI, NNR) or local (LNR) statutory designated wildlife sites within 2km of the Site.
- 3.2 With reference to TVERC's 'Living List' of Local Wildlife Sites (LWSs), there are no designations covering the Site or immediately adjacent habitats. The closest LWS is the Burghfield Gravel Pits c. 220m to the west which will not be impacted by the proposals.
- 3.3 No Priority Habitats are listed on the MAGIC website as occurring on or adjacent to the Site. The Reading Biodiversity Action Plan identifies land within the Green Park Village development to be priority semi-improved grassland habitat though it has been under construction for approximately three years and was formerly an industrial site.
- 3.4 The Site is listed as 'arable/allotment' within a map of Phase 1 Habitats within the Reading Biodiversity Action Plan (Figure 1 of the consultation draft, 2020) though these classifications were decided partly using aerial photo interpretation which may not be accurate.
- 3.5 A limited amount of information on protected species is available on the MAGIC website. Records of two licences to impact bat roosts exist involving the common bat species common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *P. pygmaeus* and brown long-eared bat *Plecotus auritus*. One record is c. 180m north of the Site and likely associated with demolition of the former industrial buildings in 2015. The second record is c. 1km north of the Site, also from 2015. There is also an 'absence' result for great crested newt *Triturus cristatus* within a pond/s within the Fobney Island Wetland Nature Reserve c. 1.2km north of the Site, following eDNA survey results undertaken by Natural England between 2017 and 2019.
- 3.6 There is no designated Ancient Woodland within or adjacent to the Site.

¹ <http://www.tverc.org/cms/LWSLivingLists>

² Reading Biodiversity Action Plan, Draft for Consultation, 27 February 2020

Site Description

- 3.7 Photographs of the Site and surrounding habitats are given in Appendix A at the end of this report.

Habitats and Flora

- 3.8 The Site comprises a strip of uncultivated land dominated by low-growing herbs and mosses with compacted stone in parts. The vegetation was primarily short and relatively sparse, typical of colonising ground, with a few ruderal species. Aerial photographs (Google Earth) suggest it may have historically been grassland but was partly cleared in or prior to 2003 before being reinstated. Some areas of standing water were present during the January visit though there was no indication from the vegetation present that these are any more than temporary pools following wet weather. An unsurfaced worn footpath is present along the northern edge of the Site.
- 3.9 Plant species recorded included frequent selfheal *Prunella vulgaris*, ground ivy *Glechoma hederacea*, bristly ox-tongue *Helminthotheca echinodes*, mosses, weld *Reseda luteola*, creeping cinquefoil *Potentilla repens*, mouse-ear *Cerastium* sp., St John's wort *Hypericum* sp. and unidentified Asteraceae. Other species include teasel *Dipsacum fullonum*, swine-cress *Lepidium* sp., thyme-leaved speedwell *Veronica serpyllifolia*, wild strawberry *Fragaria vesca*, Canadian fleabane *Erigeron Canadensis* and ragwort *Jacobaea* sp. There is a small amount of viper's bugloss *Echium vulgare* near the north-east corner and adjacent verge.
- 3.10 The development proposals also include a small area of hard-standing over a culverted ditch/drain plus some hard-standing, bare and colonising ground along the verge of Flagstaff Road.
- 3.11 Habitats immediately surrounding the red-line area are also of relevance to the proposals. The Site is part of a larger field bounded by ditches, trees and scrub. The northern boundary of the field comprises a ditch corridor south of Smallmead Road. The watercourse is located within a shallow channel c. 4m in width and the water level was c. 1m deep at the time of the visit. Scattered mature willow *Salix* spp. pollards are present on either side of the bank. Additional trees include mature ash *Fraxinus excelsior*, alder *Alnus glutinosa* and semi-mature silver birch *Betula pendula*, elder *Sambucus nigra* and rose *Rosa* sp. There is a surfaced foot/cyclepath north of the stream which links Kirtons Farm Road with Longwater Avenue. The southern bank is dominated by dense bramble scrub. The drain is culverted in several locations and likely feeds in to the Green Park Flood Relief Channel to the east of Longwater Avenue. It is also connected to ditches along the eastern and western boundaries of the field.
- 3.12 The western boundary of the field comprises another more minor ditch corridor with mature alder and willow trees. Mature *Buddleja* scrub is present along the field edge.

- 3.13 The eastern boundary of the field, contains a small number of immature willow trees at the northern end with a shallow drainage channel containing frequent young willow scrub and sedges *Carex* sp.

Fauna

- 3.14 Several bat boxes are present on trees along the northern bank of the stream and natural features with bat roosting potential were also noted on the mature willow pollards. These boundary habitats are likely to provide roosting, foraging and commuting opportunities for bats.
- 3.15 No evidence of badger *Meles meles* was found on or surrounding the Site. A small number of rabbit burrows are present within the offsite vegetation along the western and northern boundaries and there is evidence of rabbit grazing on-site.
- 3.16 Otter *Lutra lutra* are known to be present locally as there are abundant watercourses and wetland habitats in south-west Reading. Water vole may also occur though are suspected to be absent from the borough². The ditches bordering the Site are not considered to comprise high quality habitat for these species, particularly water vole, and no burrows suspected to be attributed to water vole were noted during the survey (though visibility of the northern bank was limited). Otter are wide-ranging and likely to make use of a large network of water courses as part of their range, or during dispersal. It is suspected that otter may occasionally make use of the ditches for this purpose. Breeding sites are considered unlikely to be present as the stream corridor is fairly open to the north and potential disturbance from nearby buildings and construction activities.
- 3.17 There is potential for grass snake *Natrix natrix* (syn. *N. helvetica*) to occur within boundary vegetation and some remnant reptile survey refugia (squares of roofing felt) were noted along the northern boundary.
- 3.18 The Site and surrounding habitats are likely to offer general opportunities for other wildlife including nesting and foraging birds and common invertebrates. Recommendations for these groups are given below where applicable.

4.0 Discussion and Recommendations

- 4.1 Habitats to be impacted by proposed car park are considered to be of low ecological value and do not pose a constraint to the works.
- 4.2 Adjoining boundary habitats are of greater significance, with ditch, scrub and tree habitats providing habitat for a range of wildlife and forming part of the local green/blue infrastructure network, as well as having intrinsic ecological value. There is potential for protected species to occur in association with these habitats, namely bats, otter, nesting birds and grass snake.
- 4.3 It is understood that these habitats are not due to be directly impacted, with the exception of some minor trimming back of overhanging tree branches and immature bramble scrub on the existing bridge (see photo

in Appendix A) and at the proposed access point on the eastern boundary to improve visibility when needed. There will also be clearance of limited area of bramble scrub for construction of the headwall and pipework. The location and arrangement of the car park and drainage features have been designed to minimise impacts of trees and their roots.

- 4.4 No dig methods have been recommended (Arboricultural Impact Assessment, Barton Hyett Associates) for the footpath surface construction in the west of the Site to avoid impacts to tree roots.
- 4.5 No further survey work is considered necessary in relation to these ecological features, but precautionary working measures are recommended to prevent damage or degradation of habitats and to avoid an offence in relation to legally protected species. These measures are detailed below.

Mitigation Strategy

Construction Phase

- 4.6 The car park area has been offset from the northern watercourse by a minimum of 10m in-line with policy EN11 of the Reading Borough Local Plan, so as to protect its biodiversity value.
- 4.7 Any reduction/clearance of scrub or dense vegetation (e.g. dense nettles/long grass) should be undertaken outside the nesting bird season (March – August inclusive) or else subjected to a pre-commencement nesting bird check by an experience ecologist to ensure no active nests are present which may be impacted by the works.
- 4.8 Pollution prevention measures should be implemented to prevent contamination of the surrounding watercourse and ditches during the construction period. These should include:
 - Use of barriers at access points over/near to ditches or water courses and any other potential contamination locations as necessary, to avoid silt and contaminated surface water from impacting natural habitats.
 - Clean access roads regularly to reduce dust and mud build-up.
 - Do not dispose of removed vegetation within water courses and prevent debris/vegetation falling into the water. Consider using screens or nets to collect floating debris/silt if necessary.
 - Protect areas of exposed soil near the watercourse from erosion by limiting the area to be cleared to the minimum necessary. Use of barriers such as biodegradable textiles may also be appropriate.
 - Excavated soil should not be stockpiled within 10m of the boundary habitats and should be covered whilst stored to limit exposure to wind and rain.

- Where absolutely necessary to be kept on site, chemicals, plant and materials will not be stored within 10m of the boundary ditches to minimise the risk of a spill entering a watercourse. A spill kit will be kept at any storage areas and regular inspections made to ensure that there are no leakages or other issues.
 - Undertake regular visual inspections of the watercourse to determine that prevention measures are working adequately, and to identify any other issues to be rectified.
- 4.9 Heras fencing will be used to demarcate root protection zone of trees to prevent damage to these and surrounding habitats from vehicle movements and clearance works. Signage will be used to inform workers of the importance of the fencing and ensure it is not ignored or removed.
- 4.10 It is understood that negligible impacts will be needed to boundary vegetation. If proposals should require impacts to trees or ground cover beyond that already mentioned, then an ecologist should be consulted before proceeding to ensure the works will not impact nesting birds, roosting bats or reptiles, and to advise on a sensitive method of working.

Operational Phase

- 4.11 Pollution prevention methods should remain in place where appropriate to prevent contamination from parked cars, and along access routes.
- 4.12 Filter drains will be used, along with catchpits, to trap silt and other surface water pollutants originating from the car park area and preventing them from entering the surrounding watercourses.
- 4.13 Vehicles or materials should not be stored outside the fenced car park area.
- 4.14 Access routes should continue to be kept clean and visual inspections of boundary habitats and watercourses should continue to be made.
- 4.15 Lighting is required for certain periods during the operational phase (e.g. for c. 1 hour at the start and end of each working day during the winter months). Bulkhead lighting units will be affixed to the boundary heras fencing and directed into the car park. Some minor shielding is provided by the back of the bulkhead casing and the units will be at least 10m from the watercourse. Given this distance and the limited period during which lighting will be in use, it is not anticipated to have any significant impact on surrounding habitats or wildlife.
- 4.16 Car parking areas can be a significant source of litter and wind-blown litter could contaminate surrounding habitats and harm wildlife. Covered bins should be provided within the area and emptied regularly to prevent litter from polluting natural habitats. Litter checks should form part of regular inspections with remedial action taken as needed.

Reinstatement

- 4.17 When the car park is no longer needed, it is proposed that the existing habitats be reinstated. However, emerging national planning policy and Policy EN12 of the Reading Borough Local Plan states that development should seek to enhance biodiversity wherever possible. The existing land appears to be low-nutrient (lack of invasive indicator plants such as nettle *Urtica dioica*/docks *Rumex* spp.) and would be a good candidate for reseeded with a species-rich grassland mix. It is recommended that an ecologically valuable habitat type appropriate to the area be reinstated such as a wildflower mix for loamy soils (e.g. EM5 by Emorsgate Seeds). The same pollution prevention methods as described above should be employed to prevent damage to retained habitat during the reinstatement process.

5.0 Conclusion

- 5.1 No overriding constraints to construction of the temporary car park have been identified as the habitats to be impacted are of low ecological value with low risk of supporting notable species. The location of the car park and access points have been designed to avoid ecological impacts wherever possible.
- 5.2 However, the surrounding habitats are more sensitive and precautionary working methods have been set out herein to ensure that the works don't result in degradation of habitats or impacts to protected species.
- 5.3 Subject to the satisfactory implementation of these methods, there is considered to be no significant adverse effect on local ecological features as a result of the proposals.

Appendix A

Site photographs



Photograph 1. View east across Site



Photograph 2. Close-up of colonising ground vegetation



Photograph 3. View north across ditch bridge towards Smallmead Road



Photograph 4. View west along Smallmead Road showing hard-standing and bare ground habitats to be cleared for access route



Photograph 5. Northern ditch boundary with mature willows and bramble scrub (view east)



Photograph 6. Northern boundary drain



Photograph 7. Mature buddleja scrub along west boundary



Photograph 8. Ditch with willows along west boundary (view south)