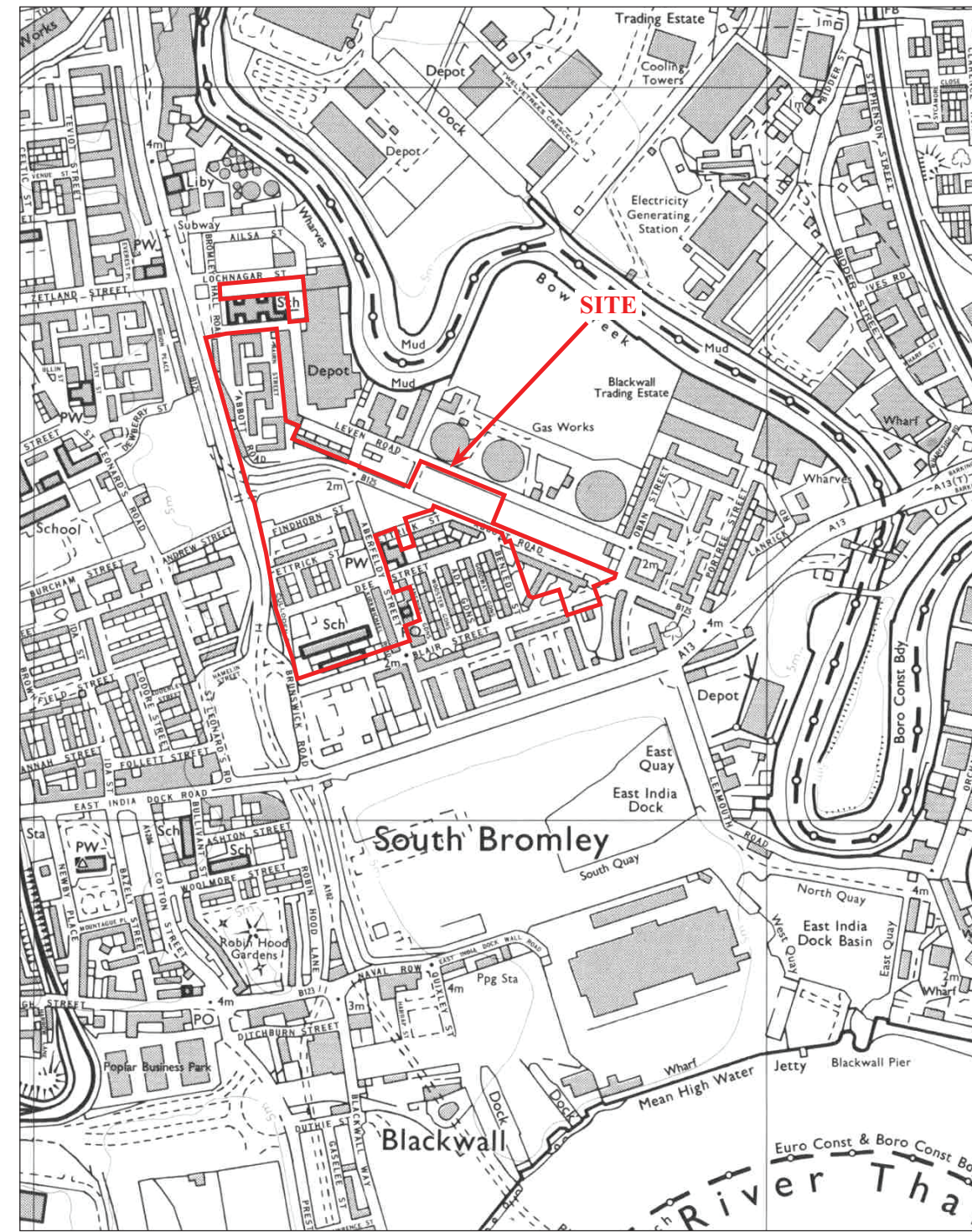


AVL 20/188

Aberfeldy Village, Lighterman Point, Poplar,
London, 2020
Archaeological Desk-based Assessment
Figure 15. Ordnance Survey, 1981.

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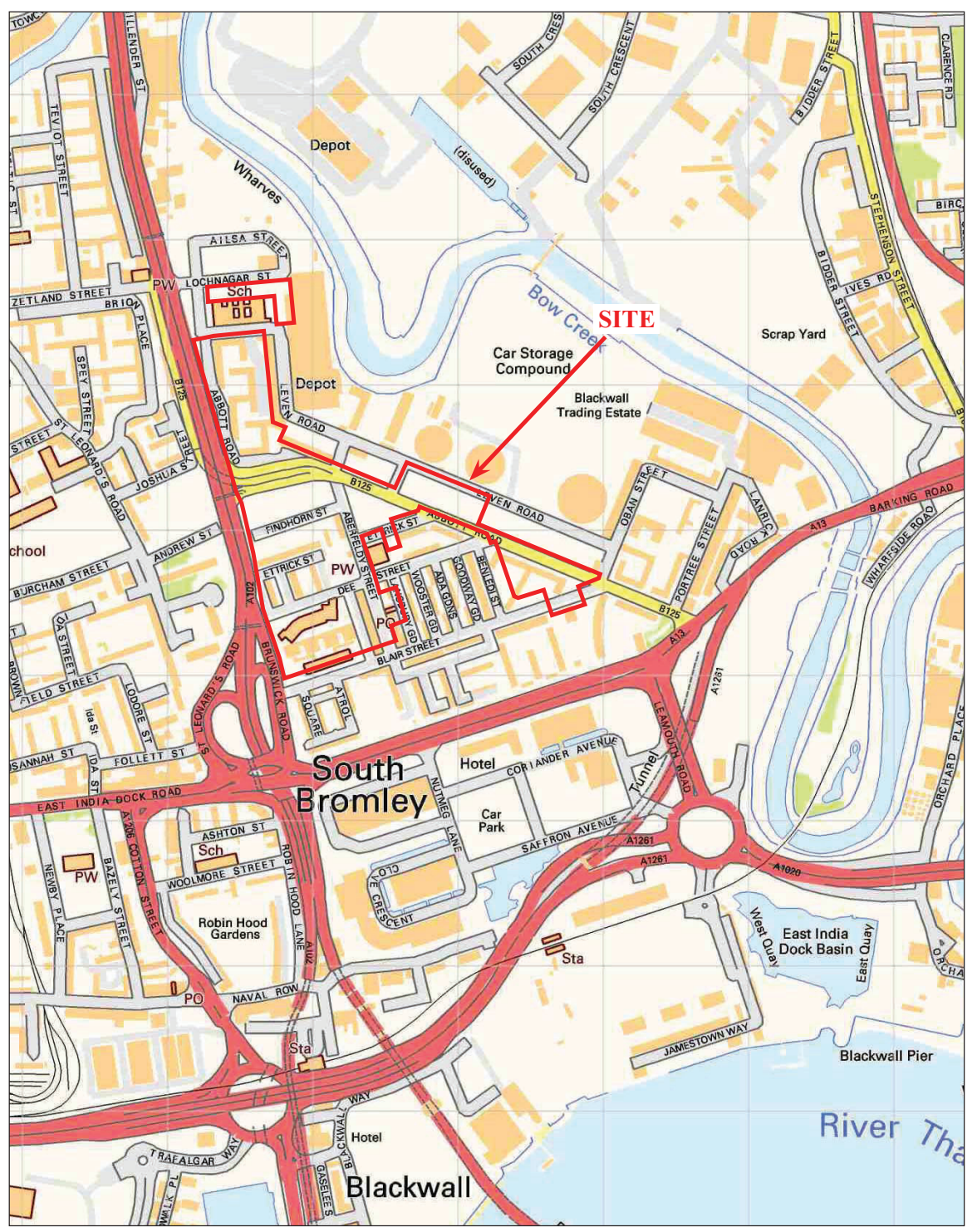


AVL 20/188

Aberfeldy Village, Lighterman Point, Poplar,
London, 2020
Archaeological Desk-based Assessment
Figure 16. Ordnance Survey, 1989.

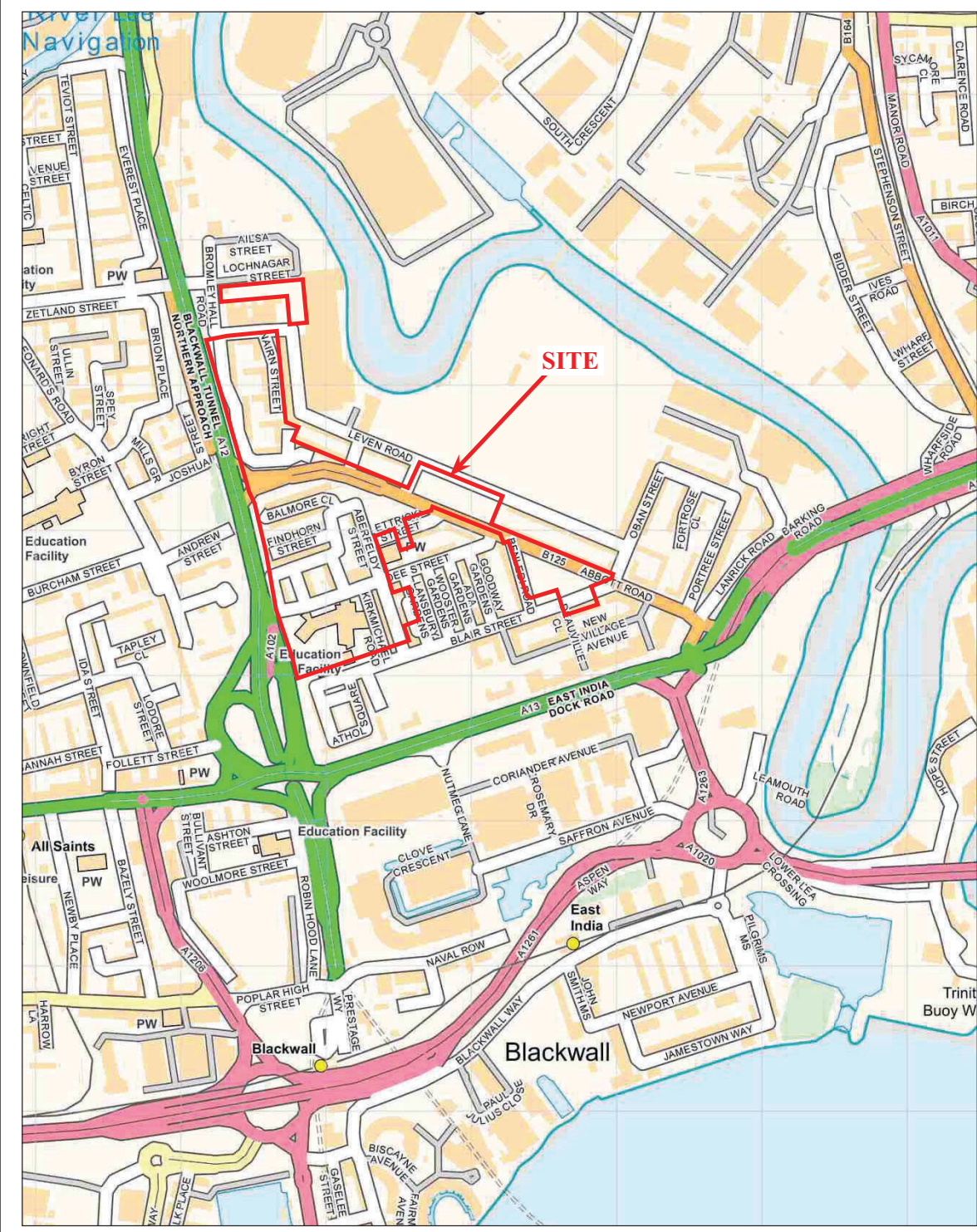
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AVL 20/188

Aberfeldy Village, Lighterman Point, Poplar,
London, 2020
Archaeological Desk-based Assessment
Figure 17. Ordnance Survey, 2001.



AVL 20/188

Aberfeldy Village, Lighterman Point, Poplar,
London, 2020
Archaeological Desk-based Assessment
Figure 18. Ordnance Survey, 2020.



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Plate 1. Leven Road, looking south.

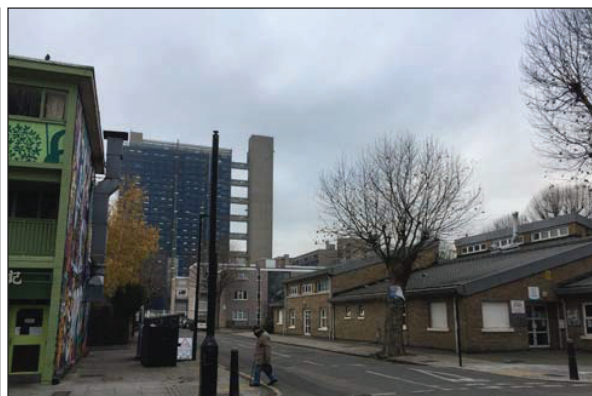


Plate 2. South-west of the site, looking north-west from Blair Street.



Plate 3. Dee Street, looking west.



Plate 4. Brathewaite Park, looking south.



Plate 5. Looking south from Abbott Road towards Baltimore Close, Balfour Tower and Carradale House in background.



Plate 6. Nairn Street, looking south.

NMW 20/177



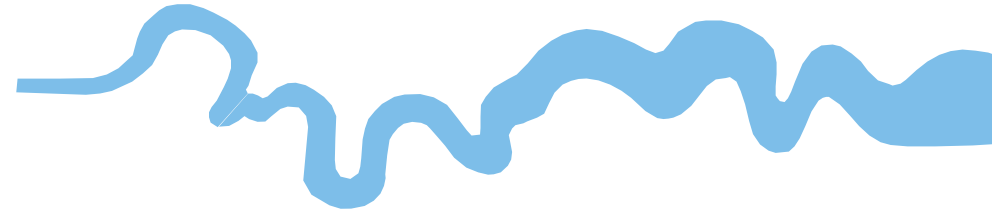
Aberfeldy Village, Lighterman Point, New Village Avenue,
Poplar, London, 2020
Archaeological Desk-based Assessment
Plates 1 - 6.

THAMES VALLEY
ARCHAEOLOGICAL
SERVICES

TIME CHART

| | Calendar Years |
|----------------------------|------------------|
| Modern _____ | AD 1901 |
| Victorian _____ | AD 1837 |
| Post Medieval _____ | AD 1500 |
| Medieval _____ | AD 1066 |
| Saxon _____ | AD 410 |
| Roman _____ | AD 43 AD 0 BC |
| Iron Age _____ | 750 BC |
| | |
| Bronze Age: Late _____ | 1300 BC |
| Bronze Age: Middle _____ | 1700 BC |
| Bronze Age: Early _____ | 2100 BC |
| | |
| Neolithic: Late | 3300 BC |
| Neolithic: Early | 4300 BC |
| | |
| Mesolithic: Late | 6000 BC |
| Mesolithic: Early | 10000 BC |
| | |
| Palaeolithic: Upper | 30000 BC |
| Palaeolithic: Middle | 70000 BC |
| Palaeolithic: Lower | 2,000,000 BC |
| ↓ | ↓ |

APPENDIX E - Preliminary Ecological Appraisal



Thames Valley Archaeological Services Ltd,
47-49 De Beauvoir Road,
Reading RG1 5NR

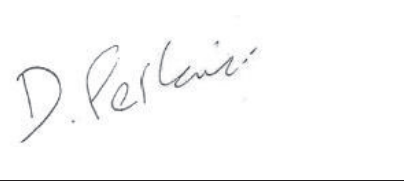
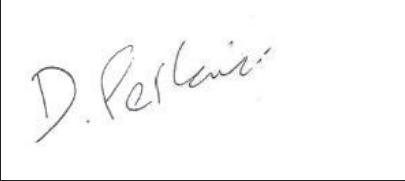
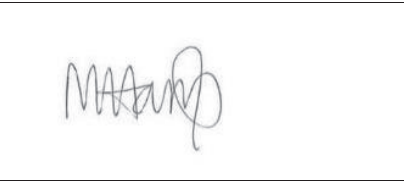

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QA

Aberfeldy Village – Preliminary Ecological Appraisal

| | | |
|-----------------|--|---|
| Issue/Revision: | Draft | Final |
| Date: | November 2020 | November 2020 |
| Comments: | | |
| Prepared by: | Daniel Perlaki | Daniel Perlaki |
| Signature: |  |  |
| Authorised by: | Mike Harris | Mike Harris |
| Signature: |  |  |
| File Reference: | 551566dpOct20DV01_PEA | 551566dp05Nov20FV01_PEA |

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1.0 EXECUTIVE SUMMARY

- 1.1 Greengage Environmental Ltd was commissioned to undertake a Preliminary Ecological Appraisal by Aberfeldy New Village LLP of a site known as Aberfeldy Village in Poplar, London Borough of Tower Hamlets.
- 1.2 This document is a report of this survey and has been produced to support amendments to an existing planning submission for the site. The site benefits from a six-phase permission, initially granted in outline with all matters reserved, with phases 1 – 3 since granted full permission. Phases 1 – 3a are fully built out. Phase 3b is under construction, which is the last two blocks of Phase 3. Phases 1 + 2 are fully occupied. Phase 3a is partially occupied.
- 1.3 Proposals seek substantial changes to phases 4 – 6 to increase the density of residential, and to increase and change the character of the commercial and retail offer.
- 1.4 This survey aimed to establish the ecological value of this site and the presence/likely absence of notable and/or legally protected species in order to inform appropriate mitigation, compensation and enhancement actions in light of proposed development works.
- 1.5 The desk study has identified that the nearest statutory/non-statutory designated site is the River Lea Site of Importance for Nature Conservation (SINC), 100m from site. The closest statutory designated site is Tower Hamlets Cemetery Park LNR, 1.5km from the site. The site is also located approximately 6.4km from the Epping Forest Special Area of Conservation (SAC).
- 1.6 The site survey identified only common and widespread urban habitats of limited ecological value on site.
- 1.7 The site has potential to support the following notable and/or protected species:
- Low potential to support foraging and commuting bats;
 - Low potential to support roosting bats;
 - Moderate potential to support nesting birds; and
 - Confirmed presence of invasive/non-native species.
- 1.8 In order to ensure there are no impacts upon the River Lea SINC, a Construction Environment Management Plan should be produced and adopted. All other designated sites are considered to be outside the zone of impact. To assess whether the proposed development is likely to have a significant effect on the Epping Forest SAC a stand-alone Habitat Regulations Assessment Likely Significant Effects Assessment should be undertaken.
- 1.9 Bat emergence/re-entry surveys are recommended of the buildings and trees which have potential to support roosting bats in order to identify an appropriate approach to

mitigation. Recommendations relating to bat-sensitive lighting are outlined to mitigate any potential impacts associated with lighting upon foraging and commuting bats.

- 1.10 Timed clearance of vegetation with potential to support bird nests, or clearance only after an ecologist confirms the likely absence of nesting birds, is recommended to ensure there are no impacts upon nesting birds. Removal of invasive/non-native species is recommended. Soft landscaping is recommended to compensate for the loss of foraging habitat for bats and birds. This soft landscaping should avoid planting potentially invasive species as identified by the London Invasive Species Initiative.
- 1.11 Ecological enhancement recommendations are made with the intention of improving the ecological value of the site, including:
- Provision of living roofs designed to mimic brownfield site habitats;
 - Wildlife friendly landscaping to provide foraging resources for local notable species. Proposals should utilise vertical spaces through provision of climbing plants on trellis systems; and
 - Provision of bird and bat boxes within the built form of new buildings.
- 1.12 Should the recommendations within this report be followed, compliance with all relevant biodiversity protection legislation and planning policy can be achieved.
- 1.13 It is recommended that a Biodiversity Impact Assessment is undertaken to quantify the change in the ecological value of the site using the DEFRA Metric 2.0, to assess whether or not the site delivers biodiversity net gain.

2.0 INTRODUCTION

- 2.1 Greengage was commissioned to undertake a Preliminary Ecological Appraisal (hereafter referred to as 'PEA') by Aberfeldy New Village LLP of a site known as Aberfeldy Village in Poplar, London Borough of Tower Hamlets.
- 2.2 This document is a report of this survey and has been produced to support amendments to an existing planning submission for the site. The site benefits from a six-phase permission, initially granted in outline with all matters reserved, with phases 1 – 3 since granted full permission. Phases 1 – 3a are fully built out. Phase 3b is under construction, which is the last two blocks of Phase 3. Phases 1 + 2 are fully occupied. Phase 3a is partially occupied.
- 2.3 Proposals seek substantial changes to phases 4 – 6 to increase the density of residential, and to increase and change the character of the commercial and retail offer.
- 2.4 This survey aimed to establish the ecological value of this site and the presence/likely absence of notable and/or legally protected species in order to inform appropriate mitigation, compensation and enhancement actions in light of proposed development works.

SITE DESCRIPTION

- 2.5 The survey area extends to approximately 7.35 hectares and is centred on National Grid Reference TQ383813, OS Co-ordinates 538392, 181361.
- 2.6 The site encompasses a number of plots which are separated by roads. It is located in Poplar in East London within a wider triangle shaped parcel bound by A13 East India Dock Road to the south, A12 Blackwall Tunnel Northern Approach to the west and Leven Road to the northeast. At its closest point, Bow Creek is 300m northeast of the site and the River Thames is ~700m south.
- 2.7 The site is located within a highly urbanised area of London and includes residential, commercial and educational buildings. Some plots also contain parks and recreational spaces, and other land use in the vicinity includes industrial (largely orientated around the River Thames). Transport infrastructure is the other major feature of the landscape within and surrounding the site, with major roads being present. Green infrastructure is somewhat limited, with pocket-parks and street trees making up the majority of greenspace, with the exception of the Thames and its associated habitats.

3.0 METHODOLOGY

- 3.1 The PEA (which included an Extended Ecological Phase 1 Survey) was undertaken in accordance with guidance in the Joint Nature Conservation Committee (JNCC) (2010) Handbook for Phase 1 Habitat Survey¹ and the Chartered Institute of Ecological and Environmental Management (CIEEM) (2017) Guidelines for Preliminary Ecological Appraisal², in accordance with BS42020:2013: Biodiversity³. The overall assessment consisted of:
- Site specific biological information gained from statutory and non-statutory consultation; and
 - A site walkover, protected species scoping assessment and phase 1 habitat survey.
- 3.2 The site-specific consultation provided the ecological context for the site survey carried out on the 6th and 7th October 2020.
- 3.3 The survey boundary and existing site is shown at Figure 1.
- 3.4 Greengage undertook the site walkover during dry, overcast weather conditions. Features within the site boundary and accessible features immediately bordering it were evaluated and the extent and distribution of habitats and plant communities were recorded and supplemented with target notes on areas or species requiring further commentary. Fauna using the area were recorded and areas of habitat suitable for statutorily protected species were identified where present, with an active search carried out for evidence of such use.

DESKTOP REVIEW

- 3.5 A review of readily available ecological information and other relevant environmental databases (included Defra's Multi-Agency Geographic Information for the Countryside (MAGIC) website⁴) was undertaken for the site and its vicinity. In addition, a biological records search from Greenspace Information for Greater London (GiGL) was reviewed to identify the location and citations of local non-statutory designated sites and presence of records for notable and protected species. This provided the overall ecological context for the site, to better inform the Phase 1 Survey.

ON SITE SURVEYS

Flora

- 3.6 The extent and distribution of different habitats on site were identified and mapped according to the standard Phase 1 Survey methodologies, supplemented with target notes describing the dominant botanical species and any features of interest. Any present protected plant species and invasive/non-natives were also noted. A habitat map has been produced to illustrate the results, as shown at Figure 1.

Fauna

3.7 The Phase 1 Survey specifically included assessments to identify the potential value for notable, rare and protected species at site. This involved identifying potential habitats in terms of refugia, breeding sites and foraging areas in the context of species known to be present locally and regionally.

3.8 The likelihood of occurrence is ranked as follows:

- Negligible - While presence cannot be absolutely discounted, the site includes very limited or poor-quality habitat for a particular species. The site may also be outside the known national range for a species;
- Low - On-site habitat is poor to moderate quality for a given species, with few or no information about their presence from desk top study. However, presence cannot be discounted due to the national distribution of the species or the nature of on-site and surrounding habitats;
- Moderate - The on-site habitats are of moderate quality, providing most or all of the key requirements for a species. Several factors may limit the likelihood of occurrence, habitat severance, habitat disturbance and small habitat area;
- High - On-site habitat of high quality for given species. Site is within a regional or national stronghold for that particular species with good quality surroundings and good connectivity; and
- Present - Presence confirmed for the survey itself or recent, confirmed records from information gathered through desk top study.

3.9 The species surveyed for included:

Badger (Meles meles)

3.10 The potential for badger to inhabit or forage within the study area was assessed. Evidence of badger activity includes the identification of setts (a system of underground tunnels and nesting chambers), grubbed up grassland (caused by the animals digging for earthworms, slugs, beetles etc.), badger hairs, paths, latrines and paw prints.

Bat Species (Chiroptera)

3.11 The site visit was undertaken in daylight and the evaluation of bat potential comprised an assessment of natural features on site that aimed to identify characteristics suitable for bat roosts, foraging and commuting. In accordance with Bat Conservation Trust's *Good Practice Guidelines*⁵ and methods given in English Nature's (now Natural England) *Bat Mitigation Guidelines*⁶ consideration was given to:

- The availability of access to roosts for bats;
- The presence and suitability of crevices and other places as roosts; and

- Signs of bat activity or presence.

3.12 Definite signs of bat activity were taken to be:

- The bats themselves;
- Droppings;
- Grease marks;
- Scratch marks; and
- Urine spatter.

3.13 Signs of possible bat presence were taken to be:

- Stains; and
- Moth and butterfly wings.

3.14 Features with potential as roost sites include mature trees with holes, crevices or splits (the most utilised trees being oak, ash, beech, willow and Scots pine), caves, bridges, tunnels and buildings with cracks or gaps serving as possible access points to voids or crevices.

3.15 Additionally, linear natural features such as tree lines, hedgerows and river corridors are often considered valuable for commuting and semi-natural habitats such as woodland, meadows and waterbodies can provide important foraging resources. Consideration was given to the presence of these features both immediately within and adjacent to the assessment area.

Great Crested Newt (Triturus cristatus)

3.16 An assessment was carried out to identify any potential habitats that may support great crested newt (GCN) and other native amphibians. The aquatic and terrestrial habitats required generally include small, still ponds or water bodies suitable for breeding; and woodland or grassland areas where there is optimal invertebrate prey potential.

Reptiles

3.17 The potential for reptile species on site was assessed during the walkover survey. Possible species include grass snake (*Natrix natrix*), smooth snake (*Coronella austriaca*), adder (*Vipera berus*), common and sand lizard (*Lacerta vivipara* and *L. agilis*) and slow worm (*Anguis fragilis*). These native reptile species generally require open areas with low, mixed-height vegetation, such as heathland, rough grassland, and open scrub or,

in the case of grass snake, waterbody margins. Suitable well drained and frost-free areas are needed so they can survive the winter.

Dormouse (Muscardinus avellanarius)

- 3.18 During the walkover survey the potential for dormouse to be present on site was assessed. This included observations for suitable habitat such as well-layered woodland, scrub and linking hedgerows, particularly those comprised of species offering suitable food sources such as honeysuckle and hazel, in addition to direct evidence such as characteristically gnawed hazelnuts, chewed ash keys and honeysuckle flowers, or nests.

Water Vole (Arvicola terrestris)

- 3.19 Water vole potential was assessed during the walkover survey. The potential is identified by the presence of ditches, rivers, dykes and lakes with holes and runs along the banks. Latrines, footprints or piles of food can also be noted.

Otter (Lutra lutra)

- 3.20 Where desktop review or consultation indicates the presence of otter in a river catchment, the presence of water bodies with good cover and potential holt (den) sites would be noted. Spraint, footprints or food remains can also be noted.

Birds

- 3.21 During the walkover survey, the potential for breeding, wintering and migratory birds was assessed. In particular, this includes areas of trees, scrub, heathland and wetlands that could support nests for common or notable species.

Invertebrates

- 3.22 As part of the walkover survey the quality of invertebrate habitat and the potential for notable terrestrial and aquatic invertebrate species was considered. There is a wide variety of habitats suitable for invertebrates including wetland areas, heathland, areas of bare sandy soil, ephemeral brownfield vegetation and meadows.

Biodiversity Action Plan priority species/ Species of Principal Importance

- 3.23 Where consultation and desk-study indicates the presence of BAP priority species (Species of Principal Importance) not protected by statute, effort was made to establish the potential for the site to support these species.

SURVEYORS

- 3.24 Daniel Perlaki, who undertook the surveys at site and prepared this report, has an undergraduate degree in Ecology (BSc Hons), a Master's degree in Conservation Science

and Policy and is a Graduate member of CIEEM. Daniel has over 4 years' experience in the commercial ecology sector.

- 3.25 Mike Harris, who reviewed this report, has a Bachelor's degree in Environmental Biology (BSc Hons), a Natural England Great Crested Newt Licence (2015-17819-CLS-CLS) and Dormouse Licence (2016-21291-CLS-CLS), is a Chartered Environmentalist (CEnv) and is a Full member of CIEEM. Mike has over 17 years' experience in ecological surveying and has undertaken and managed numerous ecological surveys and assessments.

- 3.26 This report was written by Daniel Perlaki and reviewed and verified by Mike Harris who confirms in writing (see the QA sheet at the front of this report) that the report is in line with the following:

- Represents sound industry practice;
- Reports and recommends correctly, truthfully and objectively;
- Is appropriate given the local site conditions and scope of works proposed; and
- Avoids invalid, biased and exaggerated statements.

CONSTRAINTS

- 3.27 The PEA was undertaken during a suitable time of year during suitable conditions by a qualified ecologist. Several areas of the site were not accessible during the survey including areas of private residential gardens, the school grounds and an area fenced off in the north of the site. However, habitats present within these inaccessible areas were assessed through the use of aerial photography and by viewing some of these areas from publicly accessible points. Therefore, despite these areas not being surveyed in full on site, the use of aerial photography has allowed a suitable assessment to be undertaken so that conclusions can be made accordingly.
- 3.28 The exception to the above is the assessment of bat potential in trees and buildings associated with the school. Given the restrictions associated with working in and around an active school, an assessment of the buildings and trees for bat potential could not be undertaken.
- 3.29 No further significant constraints that stand to impact conclusions drawn in this report therefore presented themselves.

4.0 RESULTS

DESKTOP REVIEW

Designations

- 4.1 Consultations with the local biological record centres (GiGL) and the MAGIC dataset have confirmed that there are no statutory designations of national or international importance within the boundary of the site.
- 4.2 There is however two Local Nature Reserves (LNRs) within a 2km radius. Additionally, the Epping Forest SAC lies within 6.4km of the site.
- 4.3 Records from GiGL also identified 24 non-statutory Sites of Importance of Nature Conservation (SINCs) within 2km of the site boundary. SINCs are recognised by LPAs as important wildlife sites.
- 4.4 Table 4.1 below gives the locations and descriptions of a selection of the nearest/most relevant local designations.

Table 4.1 Statutory and Non-Statutory Designated Sites within Search Radius

| Site Name | Approximate Location | Description |
|--|----------------------|---|
| Statutory Designations | | |
| Epping Forest Special Area of Conservation (SAC) | 6.4km north | <p>A European designated site covering approximately 1630ha comprising areas of inland water bodies (Standing water, Running water) (6%), Bogs, Marshes, Water fringed vegetation, Fens (0.2%), Heath, Scrub, Maquis and Garrigue, Phygrana (3.8%), Dry grassland, Steppes (20%) and Broad-leaved deciduous woodland (70%).</p> <p>Primary reasons for its designation include the presence of Annex I habitat Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (<i>Quercion robur-petraeae</i> or <i>Ilici-Fagenion</i>) and Annex II species stag beetle (<i>Lucanus cervus</i>). The site also supports Annex I habitats Northern Atlantic wet heaths with <i>Erica tetralix</i> and European Dry Heaths, although these habitats are not primary reason for the selection of the site.</p> <p>Epping Forest represents Atlantic acidophilous beech forests in the north-eastern part of the habitat's UK range. Although the epiphytes at this site have declined, largely as a result of air pollution, it remains important for a range of rare species, including the moss <i>Zygodon forsteri</i>. The long history of pollarding, and resultant large number of veteran trees, ensures that the site is also rich in fungi and dead-wood invertebrates.</p> <p>Epping Forest is a large woodland area in which records of stag beetle are widespread and frequent; the site straddles the Essex and east London population centres. Epping Forest is a very important site for fauna associated with decaying timber and</p> |

| Site Name | Approximate Location | Description |
|--|----------------------------|---|
| | | supports many Red Data Book and Nationally Scarce invertebrate species. |
| Tower Hamlets Cemetery Park LNR | 1.5km northwest | <p>The site is a cemetery with habitats including wildflower sown grasslands and scattered trees, including lime (<i>Tilia spp.</i>), horse chestnut (<i>Aesculus hippocastanum</i>), London plane (<i>Platanus x hispanica</i>) and ash (<i>Fraxinus excelsior</i>).</p> <p>The site supports 30 species of breeding bird and 18 species of butterfly.</p> <p>It is designated for its wildlife value and use by schools and community groups.</p> |
| Ackroyd Drive LNR | 1.5km west | <p>There is no readily available information relating to the reason for designation.</p> <p>Ackroyd Drive Greenlink connects Tower Hamlets Cemetery Park LNR and Mile End Park LNR to the south. Habitats include woodland and wildflower meadows.</p> |
| Non-Statutory | | |
| Lea Valley SINC (Metropolitan importance) | 100m east at closest point | This sprawling series of open spaces, in the valley of the River Lea, includes lakes, reservoirs, marshes and wet grassland. This large site includes the River Lee Navigation, River Lea and associated watercourses downstream to the tidal limit in Tower Hamlets. |
| Robin Hood Gardens SINC (Local importance) | 300m south | <p>The site is designated for habitats including grassland and woodland, and access to nature.</p> <p>Most of the site is occupied by grassland with wildflowers such as black knapweed (<i>Centaurea nigra</i>), common mallow (<i>Malvus sylvestris</i>), daisy (<i>Bellis perennis</i>) and blue eryngo (<i>Eryngium planum</i>).</p> |
| Thames Wharf SINC (Borough Grade I) | 600m east | No information relating to designation, however habitats include scattered trees, scrub, semi-improved grassland and tall herbs. |

Biodiversity Action Plans

- 4.5 UK Biodiversity Action Plans (BAPs) have been developed which set priorities for nationally important habitats and species. To support the BAPs, Species/Habitat Statements (otherwise known as Species/Habitat Action Plans) were produced that provide an overview of the status of the species and set out the broad policies that can be developed to conserve them. A list of priority species of conservation importance was also developed.
- 4.6 The UK BAP was succeeded in 2012 by the *UK-Post 2012 Biodiversity Framework* which informed the creation of the *Biodiversity 2020* strategy; England's contribution towards the UK's commitments under the *United Nations Convention of Biological Diversity*.
- 4.7 Despite this, the UK BAP priority species lists and conservation objectives still remain valid through integration with local BAPs (which remain valid), and in the form of the

Habitats and Species of Principle Importance list (as required under section 41 of the Natural Environment and Rural Communities (NERC) Act).

- 4.8 There are no BAP priority habitats on site, however the River Lea (running water) runs 70m east of the site.
- 4.9 Local Biodiversity Action Plans (LBAPs) ensure that national action plans (the UK BAP/Biodiversity 2020) are translated into effective action at the local level and establish targets and actions for locally characteristic species and habitats.

Tower Hamlets BAP 2019-2024

- 4.10 The Tower Hamlets BAP is broadly split into Habitat and Species Action Plans (HAPs and SAPs) setting out actions to conserve habitats and species of conservation importance to the borough.
- 4.11 Of note to this assessment is:
- Bats SAP;
 - Hedgehog SAP;
 - Black redstart SAP;
 - House sparrow SAP;
 - Swift SAP; and
 - Jersey cudweed SAP.

Species Record

- 4.12 The information provided in the biological data search from GiGL identified records of a number of protected and BAP priority species within 2km search radius of the site. Among others, these include the following species of relevance to the site:
- Amphibians including common frog (*Rana temporaria*) and common toad (*Bufo bufo*);
 - Slow worm (*Anguis fragilis*);
 - Birds including swift (*Apus apus*), house martin (*Delichon urbicum*), swallow (*Hirundo rustica*), herring gull (*Larus argentatus*), Mediterranean gull (*Larus melanocephalus*), house sparrow (*Passer domesticus*), black redstart (*Phoenicurus ochruros*), starling (*Sturnus vulgaris*) and song thrush (*Turdus philomelos*);
 - Terrestrial mammals including hedgehog (*Erinaceus europaeus*);
 - Bats including common noctule (*Nyctalus noctula*), lesser noctule (*Nyctalus leisleri*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*P. pygmaeus*) and Nathusius' pipistrelle (*P. nathusii*); and
 - Protected plant species including Jersey cudweed (*Gnaphalium luteoalbum*).

- 4.13 The species listed above are primarily those known to be in the area that may be impacted by any proposals at the site, or that stand to benefit as a consequence of potential ecological enhancements at the site and inform site-specific mitigation and enhancement recommendations described in the following chapter.

Detailed Description of Site: Habitats

- 4.14 The habitats presented across the assessment site consist of the following Joint Nature Conservation Committee (JNCC) Phase 1 Habitat categories, as mapped at Figure 1:
- Scattered scrub (A2.2);
 - Cultivated/disturbed land – Amenity grassland (J1.2) with scattered trees;
 - Introduced shrub (J1.4);
 - Wall (J2.5);
 - Buildings/hardstanding (J3.6/J3.6.1) with street trees; and
 - Bare ground (J4).

Scattered scrub

- 4.15 Scattered scrub is present in one distinct area of the site. The northern-most plot features scattered scrub almost exclusively composed of butterfly bush (*Buddleja davidii*) and bramble (*Rubus fruticosus agg.*) around the boundary of the rectangular plot.

Amenity grassland with scattered trees

- 4.16 There are several large areas of amenity grassland within the assessment area, including a number of parks in which amenity grassland is the sole habitat. In these areas the amenity grassland is actively managed for recreation and is relatively species-poor. These areas are uniform in structure and species composition in all areas of the site.
- 4.17 The habitat is dominated by ryegrass (*Lolium sp.*), with other herbs, typical of these high-nutrient, intensively managed environments including yarrow (*Achillea millefolium*), dwarf mallow (*Malva neglecta*), dandelion (*Taraxacum spp.*), black medick (*Medicago lupulina*), chickweed (*Stellaria media*), dock (*Rumex obtusifolius*), burdock (*Arctium minor*), nettles (*Urtica dioica*), dove's-foot cranesbill (*Geranium molle*), ribwort plantain (*Plantago lanceolata*), greater plantain (*Plantago major*), daisy (*Bellis perennis*), annual meadowgrass (*Poa annua*) and creeping buttercup (*Ranunculus repens*).
- 4.18 In a single location denoted by Target Note 1 on Figure 1, black horehound (*Ballota nigra*) and autumn hawkbit (*Scorzoneroideis autumnalis*) were recorded.

- 4.19 Scattered trees are present in all examples of this habitat. Specimens vary in species and age across the site but include London plane (*Platanus x hispanica*), field maple (*Acer campestre*), lime (*Tilia cordata*), horse chestnut (*Aesculus hippocastanum*), rowan (*Sorbus aucuparia*), oak (*Quercus robur*), willow (*Salix spp.*) and birch (*Betula pendula*).

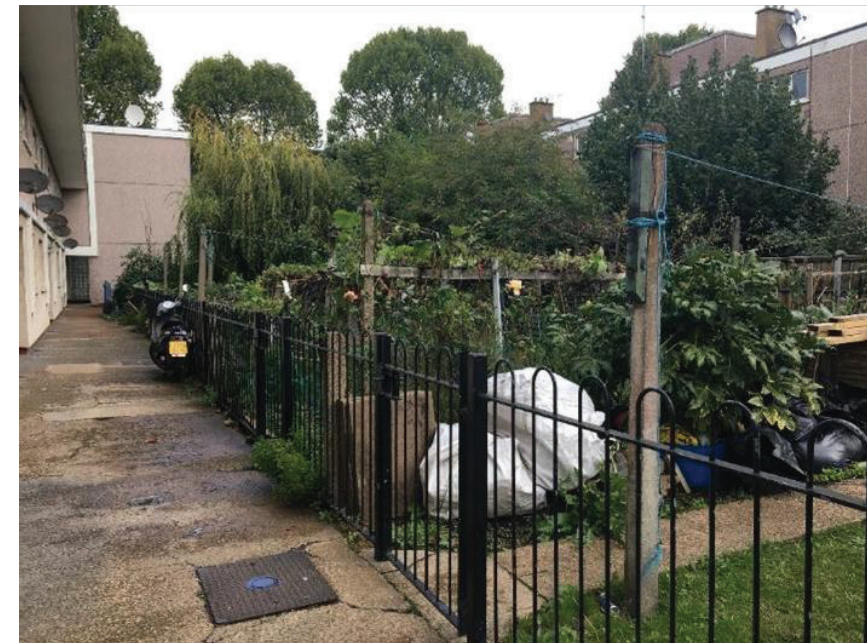
Figure 4.1 Amenity grassland with scattered trees in park areas



Introduced shrub

- 4.20 Introduced shrub habitats vary greatly across the site, and this categorisation includes self-set patches of butterfly bush of insufficient height to be considered scrub (target note 2), soft landscaping beds formally planted with ornamental species and private residential gardens, the latter being more prevalent.
- 4.21 Species present within formally planted beds in parks include Yucca sp., blueblossom (*Ceanothus thyrsiflorus*), Mexican orange blossom (*Choisya ternata*), St. John's wort (*Hypericum sp.*), paperplant (*Fatsia japonica*), Japanese honeysuckle (*Lonicera japonica*), Cotoneaster sp., cherry laurel (*Prunus laurocerasus*), rowan, *Euphorbia sp.*, pampas grass (*Cortaderia selloana*), birch, hazel (*Corylus avellana*), sage (*Salvia officinalis*), lavender (*Lavandula angustifolia*), firethorn (*Pyracantha sp.*) and *Clematis sp.*.
- 4.22 Species present within residential gardens include Virginia creeper (*Parthenocissus quinquefolia*), apple (*Malus domestica*), olive tree (*Olea europaea*), elder (*Sambucus nigra*), cherry (*Prunus avium*), whitebeam (*Sorbus aria*), rosemary (*Rosmarinus officinalis*), cucumber (*Cucumis sativus*), strawberries (*Fragaria x ananassa*), rose (*Rosa sp.*), tomatoes (*Solanum lycopersicum*), grape vines (*Vitis sp.*), false acacia (*Robinia pseudoacacia*) and squash (*Cucurbita sp.*).
- 4.23 These species lists are not considered exhaustive. Residential gardens were not able to be accessed therefore full species lists were not possible.

Figure 4.2 Introduced shrub



Wall

- 4.24 A wall measuring approximately 2m tall along Blackwall Tunnel Approach (A12) at the end of Baltimore Close is densely covered in ivy (*Hedera helix*).

Buildings

- 4.25 Buildings across the site are of varying type and include residential, commercial, educational and community uses. These vary from single- to six-storey buildings with a mixture of construction types. The northern section of the site features uniform three- to four-storey residential dwellings of brick construction with corrugated metal roofing.

Figure 4.3 Buildings in the northern section of the site off Leven Road



- 4.26 Buildings in the main body of the site are typically four-storey flats with pitched tile roofs and balconies, but also present are terraced and semi-detached houses of brick construction.

Figure 4.4 Residential flats in the main body of the site



- 4.27 Of note is the green roof present on the art studios off Abbot Road (target note 3). This was not inspected during the site visit but viewed from satellite images.

- 4.28 It was not possible to assess the buildings associated with the school as access was not possible to this area of the site.

Hardstanding with street trees

- 4.29 Hardstanding across the site includes asphalt roads, paving slabs, hard landscaping, bonded gravel play areas and brick paving. This is largely in good condition and has limited encroachment of ruderal/early colonising species.

- 4.30 There are numerous street trees present across the site. Most prominent are mature London planes. Also present are Swedish whitebeam (*Sorbus x intermedia*), sycamore (*Acer pseudoplatanus*) and tree-of-heaven (*Ailanthus altissima*).

Figure 4.5 Typical hard surfaces



Bare ground

4.31 The northernmost plot with scattered scrub habitat around the boundary is largely composed of bare ground. This has been colonised by species such as bramble, bristly oxtongue (*Helminthotheca echioides*) and Canadian fleabane (*Erigeron canadensis*).

Detailed description of Site: Species

Badger

4.32 The site is situated in an urban context which provides little value for badgers. There is insufficient foraging habitat and hardstanding/sealed surfaces are by far the most dominant habitat which is unsuitable for sett building. Additionally, there are no records for badgers within 2km of the site. As such, the site is considered to have **negligible potential** to support badgers.

Bats

Foraging and Commuting

4.33 There are records for five species of bat within 2km of the site. Additionally, the River Lea and Bow Creek, which run approximately 100m from the site at the closest point, connects the site to the wider landscape and provides a linear habitat feature which would allow bats to reach the site.

4.34 However, habitats present on site are of very limited value for foraging or commuting bats. The most common habitats on site are artificial and feature sealed surfaces with

no vegetation cover. As such they are unlikely to support invertebrate prey. The semi-natural habitats on site are all managed for amenity/recreational uses and are also unlikely to be of value for foraging or commuting. Additionally, the site is subject to high levels of disturbance associated with highly urbanised settings, such as noise, vibration and external lighting, all of which are likely to deter bats from using the site.

4.35 As such, the site is considered to have **low potential** to support foraging and commuting bats.

Roosting

4.36 An assessment of the trees on site identified numerous features which have the potential to support roosting bats:

Table 4.2 Trees with potential roosting features

| Tree reference and species (See Figure 2 for location) | Potential roost feature(s) | Potential to support roosting bats |
|--|--|------------------------------------|
| T1 London plane | Large rot hole on north side of main stem at 3m | Low |
| T2 London plane | Rot hole on southwest side of main stem at 3.5m and small rot hole at 4.5m on secondary branch | Low |
| T3 London plane | Rot hole at 6.5m on north side in canopy | Low |
| T4 London plan | Rot hole at 5m on southeast side of main stem | Low |
| T5 False acacia | Cavity at 6m in central canopy on south side, visible from public road | Low |

Figure 4.6 Potential roosting features within trees



4.37 In addition, a number of features associated with the built form were identified as having potential to support roosting bats. These include:

- Gaps above garage doors leading to internal voids which were not accessible;
- Gap above soffit box and below roofing material on buildings;
- Crack between underside of slabs on balconies;
- Lifted flashing on bin stores;
- Missing/dislodged roof wiles; and
- Missing mortar/crack in brick wall.

4.38 The location of all potential roosting features identified is shown in Figure 2. The potential roosting features associated with the built form are all considered to have low potential to support summer feeding roosts of common crevice dwelling species such as common pipistrelle (*Pipistrellus pipistrellus*). None of the features identified have potential to support hibernation or maternity roosts.

Figure 4.7 Potential roosting features within the built form



Birds

4.39 There are records for numerous notable species within a 2km radius. During the site visit, goldfinch (*Carduelis carduelis*), carrion crow (*Corvus corone*), magpie (*Pica pica*), wood pigeon (*Columba palumbus*), rock dove (*Columba livia domestica*), great tit (*Parus major*), lesser black-backed gulls (*Larus fuscus*) and a juvenile herring gull were recorded. Of particular note was the presence of approximately 50 crows present on Aberfeldy Millennium Green at any one time.

4.40 Habitats on site, however, provide limited value for foraging birds. They are largely species poor with a lack of native berry producing shrubs.

4.41 The mature street trees and scattered trees in parks offer nesting opportunities for passerine species, however only one old nest was identified in a tree (target note 4). Overall, the site is considered to have **moderate potential** to support nesting birds.

4.42 A specific assessment of the potential for the site to support black redstart was undertaken owing to the legislative protection afforded this species. There is no suitable foraging habitat on site (black redstart favour sparse vegetation with bare rock/ground). Additionally, no features associated with the buildings present on site were identified as having potential to support nesting black redstarts.

Protected Plant Species

4.43 The survey did not identify the presence of Jersey cudweed or any other protected plant species. As the survey was undertaken at a suitable time of year for botanical identification, protected plant species are **likely absent**.

Other Notable/Protected Species

4.44 Given the site’s location, setting and habitats, it is considered to have negligible potential to support great crested newt, reptiles, dormouse, water vole and otter.

Invasive/Non-native species

4.45 Virginia creeper is an invasive/non-native species (INNS) listed on Schedule 9 of the Wildlife and Countryside Act (as amended) 1981. This makes it an offence to cause it to grow in the wild.

4.46 Additionally, *Buddleja davidii* is listed on the London Invasive Species Initiative (LISI) Species of Concern list.

4.47 Both of these species are **confirmed present**. No other INNS were recorded on site.

5.0 EVALUATION AND DISCUSSION

BASELINE SUMMARY

5.1 The assessment site and its surroundings have potential to support the following ecological receptors of note, which could therefore be impacted upon by any future prospective development proposals, as indicated in Table 5.2 below. Comment on further recommendations for each receptor is provided; further detail and discussion can be found at paragraph 5.2 onward:

Table 5.2 Baseline Summary

| Receptor | Presence/Potential Presence | Comments |
|---------------------------------|-----------------------------|--|
| Designated Sites: Statutory | Present within 1.5km | Owing to the distance from the site and presence of significant geographical barriers, there are no predicted impacts during the construction phase. Potential impacts associated with operation include increased footfall/recreational pressure. In addition to the above, the impacts of the development, both during construction and operation, need to be assessed with regards to Epping Forest SAC which lies approximately 6.4km north of the site. The key potential impacts are here relate to recreational pressure, water resource and air quality. |
| Designated Sites: Non-Statutory | Present within 100m | As above with regards to construction impacts. Operational impacts upon the closest non-statutory designated site (Lea Valley SINC) include potential for increased litter, however increased recreational pressure is not relevant due to its inaccessibility. The banks of the river nearest to the site are canalised with industrial land uses along much of the river front limiting public access for recreation. |
| Foraging and commuting bats | Low potential | The site is considered to have low potential to support foraging and commuting bats owing to the common urban habitat types present. Impacts associated with site preparation/construction, in the absence of mitigation, include permanent loss of suboptimal foraging habitat. |

| Receptor | Presence/Potential Presence | Comments |
|-----------------------------|-----------------------------|---|
| Roosting bats | Low potential | To determine the likelihood of impacts associated with demolition/site clearance, roosting bats must be confirmed as presence or likely absent. This should be undertaken through bat emergence/re-entry surveys of features identified as having potential to support roosting bats. |
| Birds | Moderate potential | Site clearance has the potential to result in the destruction of active nests/killing of birds and loss of poor foraging habitat and nesting opportunities. |
| Invasive/Non-native species | Confirmed present | Through site clearance and preparation, all Virginia creeper and <i>Buddleja davidii</i> should be collected and removed from the site responsibly. Landscaping proposals should avoid planting species known to be INNS or those which have the potential to become invasive. |

DISCUSSION AND RECOMMENDATIONS

- 5.2 Discussion is provided below on the key ecological receptors that stand to be impacted/benefit from proposed works; high level commentary on appropriate mitigation, compensation and enhancement actions is also provided.
- 5.3 An Ecological Management Plan (EMP) and Construction Environmental Management Plan (CEMP) should be produced and implemented for the site providing greater detail on the below, which should be secured through planning condition in accordance with BS 42020: 2013 Biodiversity.

Designated sites

Statutory – European Designated sites

- 5.4 To assess whether the proposed development is likely to have a significant effect on the Epping Forest SAC a stand-alone Habitat Regulations Assessment Likely Significant Effects Assessment should be undertaken. This assessment should assess, as a minimum, the potential effects of recreational pressure, air quality and water resources on the SAC.

Statutory – Local Designated sites

- 5.5 Potential operational impacts upon LNRs within 2km of the site are associated with increased footfall. However, the statutory designated sites identified are designated specifically for recreational/educational purposes and as such will be managed to tolerate high levels of visitation.

- 5.6 Additionally, the presence of existing and proposed publicly accessible parks and other outdoor spaces is likely to divert or at least dissipate visitors from the nearby LNRs.
- 5.7 It is therefore considered unlikely that the proposed development will result in significant adverse impacts upon local statutory designated sites.

Non-Statutory

- 5.8 Whilst construction phase impacts are considered to be unlikely, given the proximity of the northernmost section of the site to the River Lea, a CEMP should be produced to detail how pollution/runoff from the site during site preparation/construction is avoided and minimised.
- 5.9 As with statutory designated sites, publicly accessible SINC's within the vicinity of the site are specifically designated for access to nature. As such they will be managed for recreation and impacts associated with increased footfall/visitation are unlikely to be significantly adverse.

Bats

Foraging and Commuting

- 5.10 Site clearance has the potential to result in the loss of poor foraging/commuting habitat for bats. To avoid impacts associated with site clearance, site layout should avoid installation of hard surfaces in the parks/green spaces within the site. Additionally, retention of all mature street trees should be sought, where possible.
- 5.11 Compensatory soft landscaping should seek to provide foraging and commuting habitat for bats, following design recommendations discussed below.

Roosting

- 5.12 Potential impacts upon roosting bats cannot be assessed without confirmation of their presence/likely absence. As the site has potential to support roosting bats, site clearance/demolition has the potential to destroy roosts/kill or injure bats, therefore should only be undertaken once roosting bats are confirmed absent or a sufficient mitigation strategy is in place. Although it cannot be confirmed at this stage, given the habitats present on site, the type of access and egress points noted and the species records within 2km, if a roost is found to be present on site it is likely to be for a relatively common species and be of low conservation value e.g. a pipistrelle summer transitory roost for a low number of individuals. This, however, will need to be confirmed through further survey.
- 5.13 To confirm the presence/likely absence of roosting bats, bat emergence/re-entry surveys should be undertaken focussing upon the buildings and trees identified as having potential roosting features. In line with best practice guidelines⁷, buildings with low potential to support roosting bats should be subject to a single emergence or return

survey between May and August. Trees with low potential do not require any further survey, instead, if they are to be lost, they should be section felled, with limbs lowered gently to the ground and left on the ground for 24hrs before being disposed of.

- 5.14 Results from these surveys will be used to identify a suitable approach to mitigation for roosting bats, should it be required.

Birds

- 5.15 The scrub, introduced shrub and scattered tree habitats across the site have potential to support nesting birds, however they are only likely to provide value for common species with no additional legislative protection over and above that provided to all nesting birds (see Appendix 1).
- 5.16 Should clearance of any of these habitats be required, it should be undertaken outside of the nesting bird season (taken to run from March to August inclusive). Should clearance be required within the nesting bird season, it should only be done so after an ecologist conducts a nesting bird check and confirms the likely absence of nesting birds.
- 5.17 Compensatory soft landscaping should be provided to compensate for the loss of foraging habitat, following design guidance below. Additionally, nest boxes should be incorporated within the built form of any new buildings on site and fitted to mature street trees retained within the scheme.

Invasive/Non-native species

- 5.18 Virginia creeper and *Buddleja davidii* should be removed from the site wherever they are encountered and disposed of responsibly.
- 5.19 Landscaping proposals should consult the LISI species of concern lists to ensure any planting does not include potential INNS.

ECOLOGICAL ENHANCEMENT OPPORTUNITIES

- 5.20 Habitats on site are of limited ecological value and are common and widespread within the immediate vicinity. As such, proposals have the opportunity to improve the ecological value of the site. The change in ecological value of the site, upon finalisation of proposals, should be assessed through a Biodiversity Impact Assessment (BIA) utilising the DEFRA Metric 2.0. The following recommendations are made for improving the ecological value of the site:
- Extensive, substrate-based biodiverse roofs should be provided on all suitable flat roof areas within the project, where possible. These should be designed with low-nutrient substrate and floral assemblages to mimic brownfield sites to provide foraging opportunities for black redstart as well as other species of bird, bats and invertebrates;

- Landscaping proposals should be wildlife friendly and be dominated by native species, with a wide flowering window. Vertical spaces should be utilised through incorporation of climbers on trellises featuring hops (*Humulus lupulus*), ivy (*Hedera helix*), clematis (*Clematis vitalba*) and passionflower (*Passiflora sp.*). In place of standard turf mixes, species-rich lawns or wildflower meadows should be created;
 - The inclusion of rain gardens as part of a surface water drainage strategy which can then be planted with native species; and
 - Bird nest boxes and bat boxes should be incorporated within the built form of all new buildings in suitable locations, providing value for house sparrow, swift, black redstart and pipistrelle species.
- 5.21 An EMP could be secured through planning condition to provide detail on all ecological mitigation and enhancement measures and actions for the site.

6.0 SUMMARY & CONCLUSION

- 6.1 Greengage was commissioned by Aberfeldy New Village LLP to undertake a PEA of a site known as the Aberfeldy Village in the London Borough of Tower Hamlets in order to establish the ecological value of this site and its potential to support notable and/or legally protected species.
- 6.2 The site lies within 6.4km of the European designated Epping Forest SAC and the effects of the development on this designated site should be assessed in a stand-alone HRA Likely Significance Test document.
- 6.3 The PEA identified only common and widespread urban habitats of limited ecological value on site. The nearest statutory/non-statutory designated site is the River Lea SINC, 100m from site. The site has potential to support the following notable and/or protected species:
- Low potential to support foraging and commuting bats;
 - Low potential to support roosting bats;
 - Moderate potential to support nesting birds; and
 - Confirmed presence of invasive/non-native species.
- 6.4 Key mitigation, compensation and enhancement actions are described to enable legislative and policy compliance (see context at Appendix 1), aiming to achieve net gains in biodiversity for the site.
- 6.5 Key actions should be included within EMP and CEMP documents for the site which could be secured through planning condition.

FIGURE 1 SITE PLAN AND HABITAT MAP