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CONSULTING

Pelham Walled Garden, Cumbria

GVA GRIMLEY HOLDINGS LTD

Preliminary Ecological Appraisal

Final

VERSION 2

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Executive Summary

BiOME Consulting Ltd was commissioned by GVA Grimley Holdings Ltd to undertake a Preliminary Ecological Appraisal (PEA) of a site proposed for renovation/remedial work at Pelham Walled Garden, Cumbria. It is proposed to rebuild the boundary wall in sections, with some potential pointing to outbuildings.

The site survey and desk study were undertaken in order to establish the baseline ecological conditions of the site, with particular attention given to the possible presence of protected, invasive or otherwise notable species. The results of the PEA have been used to identify potential constraints to the proposed works and recommend any further ecological work required to allow the works to proceed lawfully.

The site is small and comprised common habitat types, none of which were considered to have any intrinsic ecological value.

In relation to the proposed development works, the following potential issues were identified during the site survey/desk study, with consequent recommendations:

- Evidence of bat use (droppings) was identified within both onsite buildings, and the buildings were considered to possess 'moderate' potential to support roosting bats. However, the proposed works these buildings only comprises potential pointing works and bat roosting potential in these areas was considered to be limited. Therefore, an endoscope inspection of these areas to be potentially impacted is recommended in the first instance. This should be completed by an ecologist with the relevant Natural England licence. In the apparently unlikely event that roosting bats are encountered nocturnal survey work would be required. If, following these further bat surveys, the proposed works are determined to likely cause destruction/disturbance to any bat roosts then a European Protected Species (EPS) licence will need to be sought from Natural England/the site registered by a Registered Consultant (RC) under the Bat Mitigation Licence (BML) scheme (which course of action would be dependent on the status of roosts identified) to enable the works to proceed legally.
- The perimeter wall surrounding the site possessed features with the potential to support roosting bats and was assessed to be of 'low' suitability for roosting bats. Given that potential roost sites were identified in the wall an endoscope survey is recommended prior to pointing works commencing and would search for bats roosting/bat evidence in the holes/cracks/features. In the apparently unlikely event that roosting bats are identified then nocturnal survey work

should be completed in-line with the methods described above, prior to an EPS licence being sought/the site registered by a RC under the BML scheme.

- No Badger *Meles meles* activity was noted within the site, although an active sett was located 60m to the south and the occasional presence of foraging Badgers within the site is considered possible. It would therefore be prudent to consider Badgers during renovation works.
- The possible presence of reptiles within the site has been identified. The proposed works to buildings/walls is unlikely to adversely impact reptiles (if present), however, impacts to habitats with the potential to support reptiles during preparatory works and through the storage of materials should be avoided. If reptiles are encountered during site work, works should cease in that area and advice of an appropriately experience ecologist sought.
- The site supports common nesting bird species. Vegetation clearance/renovation works should be completed outside the bird nesting season, or, if works must be undertaken during the nesting season, a survey to identify any nests which may be impacted will be required.
- No other legally protected species or species of particular nature conservation value are considered likely to be present or represent a potential constraint to remedial works.

1. Introduction

BiOME Consulting Ltd was commissioned by GVA Grimley Holdings Ltd to undertake a Preliminary Ecological Appraisal (PEA) (including a desk study) of a site proposed for renovation works. This site, Pelham Walled Garden, is centred on National Grid Reference NY0371205540 (Figure 1).

The site survey and desk study were undertaken in order to establish the baseline ecological conditions of the site, with particular attention given to the possible presence of protected, invasive or otherwise notable species.

The results of the completed survey have been used to identify potential constraints to development (if present) and to recommend further ecological work required to enable the proposed works at the site to proceed lawfully.

Figure 1. Site location



1.1. Site Description

The site, located to the north of Sellafield Nuclear Power Station in western Cumbria (Figure 1), comprised the walled garden of Pelham House and includes allotments (Appendix A, Photograph 1) with associated buildings. The site layout is shown on Figure 2; the following buildings were present within the site:

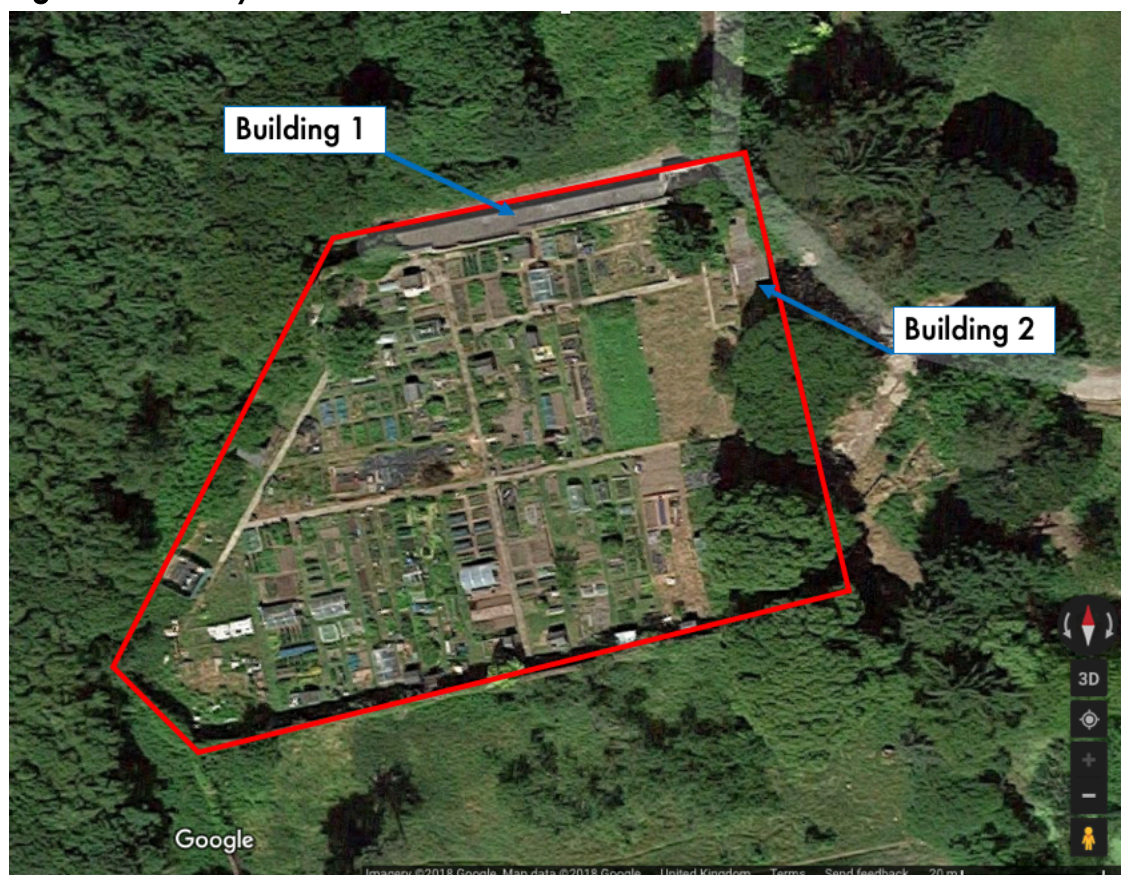
- Building 1 (Photograph 2), was a long, narrow building adjacent to the northern garden wall. It comprised seven component sections. One of these sections was a former boiler room (Photograph 3) with the remaining sections used for storage (Photograph 4). This building was constructed of red brick and stone, with a single pitched concrete-asbestos sheet roof. A small roof void was present in the former boiler room (Photograph 5).
- Building 2 (Photograph 6) was constructed of red brick, again with a single pitched concrete-asbestos sheet roof. Within this building a small roof void was present (Photograph 7).

The site was accessed via a driveway to the east.

The garden wall, which formed the perimeter of the allotments, was approximately 3m high constructed of red brick (Photograph 8) and stone (Photograph 9).

Habitats surrounding the site comprised mature deciduous woodland, arable farmland and semi-improved grassland and amenity grassland.

Figure 2. Site layout



1.2. Proposed Remedial Works

It is proposed to rebuild the boundary wall in sections, with some potential pointing to outbuildings.

2. Methodologies

2.1. Desk Study

Biological records data were obtained from Cumbria Biodiversity Data Centre (CBDC). The provided data included:

- Protected and notable species records within 2km.
- Information in relation to non-statutorily designated sites within 1km.

Information in relation to nationally and internationally designated sites within 2km was obtained from Magic.gov.uk (accessed 18 November 2018).

Habitats and Species of Principal Importance¹ and the Local Biodiversity Action Plan (LBAP) priority habitats and species were also reviewed to compare to those habitats and species either recorded within the site during the survey or recorded as having potential to be present (due to habitat suitability). The LBAP which covers this site is the Cumbria Biodiversity Action Plan².

2.2. Preliminary Ecological Appraisal Survey

A PEA site survey^{3,4} was undertaken on 7 November 2018 by an experienced ecologist, Stuart Thomas MCIEEM, in excellent weather conditions. During the survey all areas within the site and site boundaries were walked and habitat types assessed. Signs of protected species, invasive plants (*i.e.* those included on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)) and other notable species were also searched for during the survey, as well as noting habitats considered to have the potential to support protected species.

The ultimate purpose of this PEA was to identify potentially valuable habitats and plant species assemblages, and to identify the presence and/or potential for protected/controlled species. This report presents an initial assessment of the

1 Habitats and Species of Principal Importance are listed under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006.

2 Cumbria County Council (2016). Cumbria Biodiversity Action Plan [online] available at: http://www.cumbria.gov.uk/planning-environment/conservation/biodiversity/bio_bap.asp (accessed 1 November 2018)

3 Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London

4 CIEEM (2017) *Guidelines for preliminary ecological appraisal* [online] available at: <https://www.cieem.net/guidance-on-preliminary-ecological-appraisal-gpea-> (accessed 1 November 2018)

ecological significance of the features present, and discusses the potential for the site to support legally protected species and/or species of conservation interest which may be impacted by the proposed works.

Prior to the completion of the site surveys aerial imagery was reviewed⁵ to provide an indication of previous and current site uses and habitat types present in the area.

2.3. Bat Roost Potential Assessment

The presence of two buildings within the site prompted the completion of bat roost potential inspections.

A systematic search of the exteriors of the on-site buildings was completed to identify potential or actual bat access points and roosting sites, and to locate any evidence of bats such as live or dead specimens, bat droppings, urine splashes, fur-oil staining and/or squeaking noises. The external inspection also included the examination of the ground, particularly beneath any potential bat access points, for example any windowsills, window panes, walls, behind any peeling paintwork or lifted rendering, hanging tiles, weatherboarding, eaves, soffit boxes, fascias, lead flashing, gaps under felt, and under tiles/slates where present and accessible.

A systematic search of accessible areas within the interiors of the buildings was also completed, again searching for actual/potential bat access points, roosting sites and to locate any evidence of bats. It should be noted that occasionally bats leave no visible sign of their presence in a building's interior or on its exterior, particularly when there are hidden cracks, crevices and/or voids.

The inspection of buildings and built structures for evidence of bats can be conducted at all times of year. This initial inspection was completed concurrently with the PEA and facilitated by the use of ladders, a high-powered torch, endoscope and small dental mirrors to inspect accessible crevices considered likely to support bats.

The potential suitability of the buildings to be impacted by the proposed development for roosting bats was assessed in line with relevant guidelines⁶ and allocated to one of the categories detailed within **Table 1**.

⁵ Google Maps [online] available at: <https://www.google.co.uk/maps> (accessed 1 November 2018)

⁶ Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn.). The Bat Conservation Trust, London

Table 1. Guidelines for assessing the potential suitability of proposed development sites for bats

Suitability	Description of Roosting Habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure/tree with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate	A structure/tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only - the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure/tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

2.4. Great Crested Newt - Habitat Index Suitability Assessment

The presence of a single pond in the vicinity of the site prompted the completion of a Habitat Suitability Index (HSI)⁷ assessment to assess the presence/likely absence of Great Crested Newt (GCN).

The HSI for GCN is a numerical index, between 0 and 1, and provides a measure of habitat suitability⁸. In general, ponds with high HSI scores are more likely to support GCN than those with low scores (**Table 2**). However, the system is not sufficiently precise to conclude that any particular pond with a high score will support GCN, or that any pond with a low score will not do so.

Table 2 Predicted presence of GCN based upon HSI results

HSI Score	Pond Suitability	Predicted Occupancy (%)
<0.5	Poor	0.03
0.5-0.59	Below average	0.20
0.6-0.69	Average	0.55
0.7-0.79	Good	0.79
>0.8	Excellent	0.93

In line with relevant guidelines⁹, where ponds within the site exceed 2,000m² this factor has been omitted from the calculation for this waterbody.

2.5. Limitations

The findings presented in this study represent those at the time of survey and reporting, and data collected from available sources. Ecological surveys are limited by factors which affect the presence of plants and animals, such as the time of year, migration patterns and behaviour.

Access to all areas immediately outwith the site boundary was not possible; however, it was possible to adequately assess these areas from within the site or from public rights of way.

7 Oldham, R.S., Keeble, J., Swan, M.J.S. and Jeffcote, M. (2000). Evaluating the suitability of habitats for great crested newt (*Triturus cristatus*). *Herpetological Journal* **10** pp. 143-155.

8 Amphibian and Reptile Groups of the United Kingdom: ARG UK Advice Note 5 – Great Crested Newt Habitat Suitability Index, May 2010

9 Amphibian and Reptile Groups of the United Kingdom. ARG UK Advice Note 5 (2010). *Great Crested Newt Habitat Suitability Index*

3. Results

The results of the desk study (Section 3.1) and the site survey (Section 3.2) are presented below.

3.1. Desk Study

There are no statutorily designated sites within the search area. Two non-statutorily designated sites are present; details are provided within **Table 3**.

Table 3. Designated site details

Site	Approx. Distance from Site Centre/Direction	Description
Non-Statutorily Designated Sites		
Terrace Bank Wood County Wildlife Site (CWS)	Adjacent/West	No information available
Calder Bridge Wood CWS	0.6km/Northeast	No information available

The results of the biological records data search are summarised within the **Section 3.2** when relevant

A summary table of records data provided by CBDC are included as **Appendix B**. These data included:

- Five amphibian species
- 153 bird species
- One bony fish species
- One conifer species
- One echinoderm species
- Six flowering plant species
- 30 invertebrate species
- Five marine mammal species
- One millipede species
- One mollusc species
- Four moss species
- Four reptile species

- One spider species
- 19 terrestrial mammal species

3.2. Site Survey

3.2.2 Habitats

A selection of photographs is included as **Appendix A**.

The site area included well maintained allotments, few mature trees (which will not be impacted by the proposed remedial works), two outbuildings and a perimeter wall.

The desk study returned records of Scot's Pine *Pinus sylvestris* (two records, 1999), Bluebell *Hyacinthoides non-scripta* (one record, 1999), Bogbean *Menyanthes trifoliata* (one record, 2016), Isle-of-Man Cabbage *Coincya monensis* subsp. *monensis* (one record, 2000) and Yellow Archangel *Lamium galeobdolon* subsp. *argentatum* (one record, 2016).

The habitats found in the study area are common across England. No habitats that conform to LBAP or S41 priority habitats were identified. No further work in relation to habitats are recommended.

3.2.3 Species

3.2.1.1. Bats

All bat species are EPS protected under the Conservation of Habitats and Species Regulations 2010 (as amended) and receive protection under the Wildlife and Countryside Act 1981 (as amended).

All buildings and features within the site were assessed to determine their suitability to support roosting bats in line with the criteria detailed within **Table 1**. The nature of these buildings/features and the findings of the site survey are summarised below:

Building 1 (Photograph 2)

Five scattered mixed-age bat droppings considered to originate from a single Brown Long-eared Bat *Plecotus auritus* flying within the building were found on a staircase in the western section of this building.

Gaps in brickwork were noted, which could support roosting bats.

This building was assessed to have MODERATE potential to support roosting bats (Table 1).

Building 2 (Photograph 6)

Approximately 25 old, scattered bat droppings were present in the southern section of this building. Gaps in brickwork were noted, which could support roosting bats.

This building was assessed to have MODERATE potential to support roosting bats (Table 1).

Walls

The perimeter wall was constructed in red brick and stone, no evidence of bats utilising this feature were noted. However, many gaps in mortar/cracks were present (Photograph 10) which could support crevice dwelling bat species (e.g. pipistrelles).

This feature was assessed to have LOW potential to support roosting bats (Table 1).

The desk study returned the following records:

- Brown Long-eared Bat – three records, including a maternity roost of ten individuals at Sellafield NLS in 2011 (1.9km from site).
- Unidentified bat species – 15 records
- Common Pipistrelle *Pipistrellus pipistrellus* – 20 records, including a roost of 89 at Newton Manor in 2008 (2.0km from the site) and two at Calder Bridge in 2015 (0.6km from site)
- Soprano Pipistrelle *Pipistrellus pygmaeus* – 30 records, including roosts of 97 at Oak View, Calder Bridge in 2007 (0.6km from the site), 242 at Sellafield North Drive in 2015 (0.6km from the site) and numerous records of fewer than ten using bat boxes at the same location.
- Unidentified pipistrelle species – 33 records.
- Daubenton's Bat *Myotis daubentonii* – three records.
- Noctule *Nyctalus noctula* – Eight records, including a roost of seven at Sellafield in 2014, located around 1.2km from the site.

3.2.1.2. Badgers

Badgers are protected through the Protection of Badgers Act 1992, which makes it an offence to recklessly take, injure or kill a Badger or cause disturbance to its sett. Furthermore, Badgers are afforded protection from ill-treatment, which has been defined to include preventing a Badger accessing its sett, as well as causing the loss of significant foraging resources within a Badger territory. Badgers are also protected through this species' inclusion on Schedule 6 of the Wildlife and Countryside Act 1981 (as amended), which prohibits their killing or taking by certain methods.

All areas within the site were surveyed for Badgers, including adjacent boundaries. No Badger activity was noted within the site, although an active sett was located 60m to the south.

Forty-six records of this species were returned during the desk study, the closest of which was approximately 0.1km from the site.

The occasional presence of foraging Badgers within the site is considered possible.

3.2.1.3. Other Section 41 Mammals

In England many of the rarest and most threatened species are included within Section 41 of the 2006 Natural Environment and Rural Communities Act. Although these species are afforded no additional legal protection, their rarity renders them an important consideration for planning applications. Section 40(1) of this Act imposes a duty to conserve biodiversity; *'Every public authority must, in exercising its function, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity'*. Section 40(3) of the Act explains that *'Conserving biodiversity includes, in relation to living organism or type of habitat, restoring or enhancing a population or habitat'*.

The site could support occasional foraging Hedgehogs *Erinaceus europaeus*, although it is considered unsuitable for any other Section 41 mammal species.

The desk study returned 28 records of Brown Hare (most recently in 2011), 87 records of Red Squirrel *Sciurus vulgaris* (most recently in 2015), nine records of Polecat *Mustela putorius* (most recently in 2016) and 65 records of Hedgehog (most recently in 2012).

No further works in relation to other Section 41 mammals are considered necessary.

3.2.1.4. Amphibians

A number of amphibian species are legally protected under Section 9 of the Wildlife and Countryside Act 1981, as listed under Schedule 5. Great Crested Newts (GCN) *Triturus cristatus* and Natterjack Toads *Epidalea calamita* are also afforded additional protection as EPS, as defined under the EC Habitats and Species Directive 92/43/EEC.

No water features were present within the site. One pond was present around 50m to the southeast of the site, which was subject to HSI assessment. This pond scored 0.38, indicating that it is of 'poor' (Table 2) suitability for GCN and therefore unlikely to support this species. The presence of GCN within the site is therefore considered highly unlikely.

The desk study returned records of Palmate Newt *Lissotriton helveticus* (one, 2015), Smooth Newt *Lissotriton vulgaris* (six, most recently in 2015), Natterjack Toad (eight records, most recently in 1991), Common Toad *Bufo bufo* (20, most recently in 2016) and Common Frog *Rana temporaria* (18, most recently in 2016).

No further works in relation to any amphibian species are considered necessary.

3.2.1.5. Reptiles

Reptiles are protected under Schedule 5 of the Wildlife and Countryside Act 1981. Section 9(1) of the Wildlife and Countryside Act 1981 prohibits the killing, injuring or taking by any method. All native reptiles are also S41 priority species.

Habitats favoured by reptiles tend to be sunny, well-drained and often south-facing. Typical habitats include grass and heather heathland, chalk downland, coppiced woodland, sand dunes, disused allotments, suburban wasteland, road/railway embankments, golf course roughs, rough grassland, open woodland and woodland edge, immature plantation forestry, sea cliffs, moorland, disused quarries, non-intensive farmland and wild gardens. In addition, Grass Snakes *Natrix natrix* favour damp habitats¹⁰.

¹⁰ Froglife (1999). *Froglife Advice Sheet 10; Reptile Survey. An introduction to planning, conducting and interpreting surveys for snake and lizard conservation*

Habitats within the site are considered suitable for Slow-worm, however, few records of reptiles were returned from the desk study in recent times:

The desk study returned records of Adder *Vipera berus* (four records, most recently in 2001), Common Lizard *Zootoca vivipara* (five records, most recently in 2016), Grass Snake (four records, most recently in 1994) and Slow-worm *Anguis fragilis* (two records, most recently in 1998).

3.2.1.6. Birds

All wild birds (defined as species which are resident or are visitors to the United Kingdom (UK), but generally not game birds) are protected by the Wildlife and Countryside Act 1981 (as amended). As far as planning and development is concerned, it is an offence to kill, injure or take any wild bird. Some species, listed in Schedule 1 of the Act, are protected by special provisions because of their rarity and it would constitute an offence to disturb them while nesting (which includes nest building). It is also an offence to disturb dependent young of a Schedule 1 bird.

During the survey six common bird species were recorded within/overflying the site; Carrion Crow *Corvus corone*, Wren *Troglodytes troglodytes*, Blackbird *Turdus merula*, Robin *Erithacus rubecula*, Woodpigeon *Columba palumbus* and Dunnock *Prunella modularis*. It is considered highly likely that a variety of nesting birds utilise buildings/walls and vegetation with the site for nesting.

No evidence of Schedule 1 (of the Wildlife & Countryside Act 1981 (as amended)) nesting birds was noted and the habitats within the site are considered unsuitable for any nesting Schedule 1 species.

The desk study returned records of 153 bird species, a large number of which related to predominantly coastal species.

3.2.1.7. Invertebrates

A number of invertebrate species are afforded legal protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). These species are protected from intentional killing, injuring or taking, possession or control, intentional damage/destruction of any structure or place used for shelter or protection, intentional disturbance while occupying such a structure/place, selling or offering for sale or buying. Numerous species are also included on S41 of the NERC Act.

The desk study returned records of 30 invertebrate species.

Taking into account the nature of the habitats on-site it is considered highly unlikely that significant populations/species of invertebrates are present and no further works relating to invertebrates are considered necessary.

3.2.1.8. Invasive Plants

No invasive plants were noted within the site. *Rhododendron ponticum* is present within woodland to the west of the site. No other non-native invasive plants listed on Schedule 9 of the Wildlife & Countryside Act 1981 (as amended) were observed during the survey.

The desk study returned records of Himalayan Balsam *Impatiens glandulifera* and *Rhododendron*.

4. Conclusions and Recommendations

4.1. Habitats

None of the habitats identified on-site were considered to be of significant ecological value, and are not considered to represent a constraint to the proposed works.

4.2. Bats

The proposed remedial works comprise rebuilding the boundary wall in sections, with some potential pointing to outbuildings.

Evidence of bat use (droppings) was identified within both onsite buildings, and the buildings as a whole were considered to possess 'moderate' potential to support roosting bats. However, the proposed works to the two buildings only comprise potential pointing works and bat roosting potential in these areas was considered to be limited. Therefore, an endoscope inspection of these areas to be potentially impacted is recommended in the first instance. This should be completed by an ecologist with the relevant Natural England licence. In the apparently unlikely event that roosting bats are identified nocturnal survey work should be completed. These nocturnal surveys would seek to establish which bat species are present and numbers/type of roosts. All bat survey methods employed should be in line with the latest Bat Conservation Trust (BCT) survey guidance³. The optimal time for emergence/re-entry surveys is between May and August (inclusive). If, following these further bat surveys, the proposed works are determined to likely cause destruction/disturbance to any bat roosts then a EPS licence will need to be sought from Natural England/the site registered by a Registered Consultant (RC) under the Bat Mitigation Licence (BML) scheme (which course of action would be dependent on the status of roosts identified) to enable the re-development works to proceed legally. This licence would need to detail how the works would avoid any harm to bats in addition to potentially providing appropriate compensatory roosting sites.

The perimeter wall surrounding the site also possessed some features with the potential to support roosting bats and was assessed to be of 'low' suitability for roosting bats. Given that potential roost sites were identified in the wall an endoscope survey is recommended prior to pointing works commencing, to search for bats roosting/evidence of bats in the holes/cracks. In the apparently unlikely event that any roosting bats are identified then nocturnal survey work should be completed in-line with the methods described above, prior to a EPS licence being sought/the site registered by a RC under the BML scheme.

4.3. Badgers

No Badger activity was noted within the site, although an active sett was located 60m to the south and the occasional presence of foraging Badgers within the site is considered possible. It would therefore be prudent to consider Badgers during renovation works, this may include (if relevant):

- covering trenches at the conclusion of each working day, or include a means of escape for any animal falling into excavations, and
- any temporarily exposed open pipe system should be capped in such a way as to prevent Badgers gaining access.

4.4. Reptiles

The site supports habitat suitable for Slow-worm, although given that very few records were received during the desk study, their presence on site seems unlikely. The proposed works to buildings/walls are unlikely to impact reptiles (if present), however, impacts to habitats with the potential to support reptiles during preparatory works and through the storage of materials should be avoided. If reptiles are encountered during site work, works should cease in that area and advice of an appropriately experienced ecologist sought.

4.5. Birds

If possible, any vegetation clearance/building renovation works should be completed outside the bird nesting season (1 March to 31 August), although it should be noted that the nesting period may extend beyond these dates (for example, pigeons can breed in any month of the year in the UK). Should an occupied bird nest or a nest in the process of being constructed be encountered during works, clearance must cease in this area and should only re-commence once the birds have fledged or the nest is abandoned.

If works must be undertaken during the nesting season, a survey to identify any nests which may be impacted will be required. This survey should be undertaken by a suitably experienced person. Again, should an occupied nest or nest under construction be found, works must cease in this area until the birds have fledged or the nest has been abandoned.

4.6. Other Species

No further works in relation to other species are considered necessary at this time.

4.7. Opportunities for Enhancement

The National Planning Policy Framework (NPPF) sets out national planning policies for the protection of biodiversity (and geological) conservation through the planning system. A key principle of NPPF is that, '*Opportunities to incorporate biodiversity in and around developments should be encouraged*'. Taking the requirements of NPPF into account, opportunities should be sought where possible for nature conservation enhancement at this site.

Opportunities may exist to create small habitat areas and to use native species in any landscape planting. Opportunities also exist to enhance the site for bat and bird species through the incorporation of bat/bird boxes into built structures or on retained trees. S41 priority species such as the House Sparrow *Passer domesticus* (which were noted in the area) could potentially benefit from the provision of appropriate boxes. Such measures would therefore be beneficial to nature conservation and show compliance with the latest policy guidance.

Appendix A Site Photographs

Photograph 1. Interior of Pelham Walled Garden



Photograph 2. Building 1, adjacent to northern wall



Photograph 3. Former boiler room, within Building 1



Photograph 4. Interior of a section of Building 1



Photograph 5. Roof void within the former boiler room within Building 1.



Photograph 6. Building 2



Photograph 7. Roof void within Building 2



Photograph 8. Interior of wall forming allotment perimeter



Photograph 9. Exterior of wall forming allotment perimeter



Photograph 10. Gaps within perimeter wall



Appendix B Biological Records Data

Count of Recommended Commc Column Labels

Row Labels	1980	1981	1983	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
amphibian	4					2	3			2			1		15	12	2	4			1							1	1				3	2	53		
Common Frog							2						1		5	6	2												1						1	18	
Common Toad							1								8	6		2			1						1								1	20	
Natterjack Toad	4					2				2																										8	
Palmate Newt																																		1	1		
Smooth Newt															2			2															2		6		
bird							3						6	7		57	44	201	12	1	1	2	2	2	2	184	409	322	804	990	71	157				3277	
Arctic Skua																													2						4	6	
Bar-tailed Godwit																											2									2	
Black Guillemot																																				1	1
Black-headed Gull																										3	1	1	14	8	1	1					29
Black-throated Diver																														1					1		
Blackbird																1	1	5								5	16	8	20	37				1		94	
Blue Tit																1	1	6								3	13	8	14	32						78	
Brent Goose																										1										4	
Bullfinch																		2								3	2	4	9	6	1	1				28	
Buzzard																		4								5	11	4	10	20	2	5				61	
Canada Goose																													3	2				1	6		
Carrion Crow																										3	11	6	20	32				2		74	
Coal Tit																	1	3								2	3	2	3	11					25		
Collared Dove																	1	3								3	6	5	9	13	1	1			42		
Common (Mealy) Redpoll																		1																	1		
Common Gull																											3	3	9	6				1	22		
Common Sandpiper																1		1								1	1	1	5	4	1	1			16		
Common Scoter																											1		3						8		
Coot																1		2								1	1	2	3	7					17		
Cormorant																1		2								3	3	1	11	20	5	2				48	
Curlew																2	1	4								7	5	3	13	10	2	1				48	
Dipper																1	1	2								3	5	3	16	11	2	2				46	
Dunlin																											1	1	4	3	2					11	
Dunnock																1	3	3								3	11	9	11	25				1	67		
Eider																															1					1	
Firecrest																													2							2	
Fulmar																																			1	1	
Gannet																												1		1	2					5	
Goldcrest																		2								3	3	5	1	3						17	
Golden Plover																										1	2	4	4					1	12		
Goldfinch																1	1	6								1	11	5	18	22	1	1				67	
Goosander																2		1								5	1	1	4	11	1	2				28	
Grasshopper Warbler																1	1	1											1	2	2					9	
Great Black-backed Gull																										4	1	1	3	6	1					17	
Great Northern Diver																													2						2		
Great Skua																													1							1	
Great Spotted Woodpecker													2				1	3								1	2	9	5	6	4	2				35	
Great Tit																1	1	5								2	10	6	8	28			2			63	
Green Woodpecker													4				1													2						7	
Greenfinch																	1	3								2	3	7	8	13						37	
Greenshank																																			1	1	
Grey Heron																		3								6	6	5	16	15	2	4				57	
Grey Partridge																			2							1										6	
Grey Plover																												1								2	
Grey Wagtail																1	1	2								2	3	4	4	5				1	23		
Greylag Goose																1		1								1	5	1	6	20	1	4			40		
Guillemot																																				1	
Herring Gull																	1	2								2	5	3	22	11	1	1				48	
House Martin																												4	1	7	4					20	
House Sparrow																																					

Row Labels	1980	1981	1983	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Comma																										4										4	
Dingy Skipper																							1	2		12											15
Grayling								1			1														1												3
Monarch or Milkweed		1													1																						2
Small Heath			1								1				1																						3
Small Pearl-bordered Fritillary		1		1							1				1																						4
Wall									1	1	1				4	1						4	3	1		12								1			29
insect - dragonfly (Odonata)															1																					1	2
Golden-ringed Dragonfly															1																						1
Variable Damselfly																													1								1
insect - moth												18										2															20
Broom Moth												5																									5
Buff Ermine												2																									2
Cinnabar																						2															2
Double Dart												2																									2
Dusky Brocade												3																									3
Powdered Quaker												1																									1
Shoulder-striped Wainscot												1																									1
Small Square-spot												3																									3
White Ermine												1																									1
insect - true bug (Hemiptera)												28											1												1	30	
Green Shieldbug																																			1	1	
Hairy Shieldbug												20											1														21
Megalonotus chiragra												2																									2
Orthocephalus saltator												2																									2
Plinthisus brevipennis												2																									2
Strongylocoris luridus												2																									2
insect - true fly (Diptera)												7																								7	
Anticheta brevipennis												1																									1
Dioxyna bidentis												2																									2
Mantis Fly												1																									1
Platycheirus immarginatus												1																									1
Scathophaga scybalaria												1																									1
Sepsis neocynipsea												1																									1
marine mammal																						1	1												7	18	27
Bottle-Nosed Dolphin																																			2		2
Common Dolphin																																			1		1
Common Porpoise																						1												4	8	13	
Common Seal																																			2		2
Grey Seal																					1													2	6		9
millipede												1																									1
Cylindroiulus britannicus												1																									1
mollusc												8																									8
Large Black Slug												8																									8
moss																																			4	4	
Blunt-leaved Bog-moss																																		1		1	
Flat-topped Bog-moss																																		1		1	
Spiky Bog-moss																																		1		1	
Twisted Bog-moss																																		1		1	
reptile								2		1	1		1		2		3	3		1														1	15		
Adder																																					4
Common Lizard											1				2		1																	1		5	
Grass Snake								2		1			1																								4
Slow-worm																	2																			2	
spider (Araneae)												1																								1	
Enoplognatha thoracica												1																									1
terrestrial mammal							7		1	1		1	1	6	29	40	29	13	5	2	9																

Row Labels	1980	1981	1983	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Common Pipistrelle																										1							18	1	20		
Daubenton's Bat																						1											1		3		
Eastern Grey Squirrel												1	1	3	8	8	4	4		2	3	3	1	4	2	2	6	9	6	3	1	45	65	1	146		
Eurasian Badger												1	1	3	8	8	4	4		2	3	3	1	2	1		1	3	1						46		
Eurasian Common Shrew														1	7																					8	
Eurasian Pygmy Shrew														1																						1	
Eurasian Red Squirrel																			5		3	8	7	3	1	5	3	7	1		9	18	17		87		
European Otter																						3													1	6	
Feral Ferret																																	1			1	
Noctule Bat																							2			2						2	10	1	17		
Pipistrelle Bat species																						5	4			2			2	2		1	15		33		
Polecat																3		1																	1	9	
Roe Deer															4	7	2					3	1				1	1	1	1	2		2	2		27	
Soprano Pipistrelle																										6		3					18	1	30		
Stoat																													1							1	
Unidentified Bat																																	15		15		
Weasel															2		2																			5	
West European Hedgehog								6							7	16	15	5			2					1	3	3	2	2	3					65	
Total	5	2	1	2	1	2	13	3	2	4	8	65	9	14	53	110	84	225	18	4	12	44	38	18	8	239	421	357	829	1021	97	158	67	164	21	2	4121