

## 17. ECOLOGY

- 17.1 This chapter assesses the effects of the Development upon ecology and nature conservation.
- 17.2 The Site is situated within an area containing few valued ecological receptors. However, those habitats and features present are described and evaluated in this chapter and an assessment of potential effects during demolition and construction and once the Development is completed and operational is provided. An outline of appropriate mitigation measures, together with an indication of any residual effects, is also described.
- 17.3 This chapter has been written by Ecology Consultancy Ltd. Details of relevant data searches and consultation with Westminster City Council's (WCC's) Biodiversity Officer are presented within Technical Appendices 17a and 17b.

### LEGISLATION AND PLANNING POLICY CONTEXT

#### Legislation

- 17.4 The Wildlife and Countryside Act, 1981(WCA) (Ref. 17.1), the Conservation (Natural Habitats & c) Regulations, 1994 (Habitats Regulations) (Ref. 17.2) and the Countryside and Rights of Way Act 2000 (CRoW Act) (Ref. 17.3) are the major legislative frameworks protecting wildlife species and habitats in the UK.

#### The Wildlife and Countryside Act, 1981 (as amended)

- 17.5 The WCA implements the Convention on the Conservation of European Wildlife and Natural Habitats (the 'Bern Convention') (Ref. 17.4) and the resultant European Union Conservation of Wild Birds (79/409/EEC) (Ref. 17.5), and Natural Habitats and Wild Fauna and Flora (92/43/EC) (Ref. 17.6) Directives into English law.
- 17.6 Amongst other things the WCA fully protects all species of bat and wild bird. Under the WCA, it is an offence to kill, injure or take any wild bird, or to take or destroy their eggs, or damage or destroy their nest. Certain species, including black redstart (*Phoenicurus ochrurus*), receive additional special protection under Schedule 1 of the Act.

#### Conservation (Natural Habitats etc) Regulations, 1994

- 17.7 The Habitats Regulations implement the Natural Habitats and Wild Fauna and Flora (92/43/EC) (Habitats Directive) (Ref. 17.6) in England and Wales. The Regulations deal with the protection of sites that are important for nature conservation in Europe, and also give protection to certain species of flora and fauna, including bats.

#### The Countryside and Rights of Way Act, 2000

- 17.8 Part III of the CRoW Act deals specifically with wildlife protection and nature conservation. It strengthens the protection of designated SSSIs and makes it an offence to "...recklessly disturb..." the sheltering places of wild animals designated under Schedule 5 of the WCA. The Act also provides a statutory underpinning to the Biodiversity Action Plan (BAP) process and promotes the conservation of the priority species and habitats listed in the UK.

## National Planning Policy

### Planning Policy Statement 9: Biodiversity and Geological Conservation, 2005

- 17.9 Planning Policy Statement 9: Biodiversity and Geological Conservation (PPS9) (Ref. 17.7) sets out the Government's approach to the conservation of wildlife and natural features within the planning and development process. It is not only concerned with the protection of statutory designated sites but also covers development and wildlife issues outside protected areas.
- 17.10 PPS9 seeks to minimise adverse effects on wildlife and maximise benefits by ensuring that:  
 "...planning decisions aim to maintain and enhance, restore or add to biodiversity".
- 17.11 PPS9 states that the presence of protected species, UK Biodiversity Action Plan (UKBAP) priority species, and UKBAP priority habitats on a development site are a material consideration in the planning process. It states that local planning authorities (LPAs) should maximise the opportunities to build in beneficial biodiversity features as part of good design.

### UK Biodiversity Action Plan, 1994

- 17.12 The UK Biodiversity Action Plan (UKBAP) (Ref. 17.8) was published in 1994 in response to Article 6 of the Biodiversity Convention (Ref. 17.9). The aim of the plan is to preserve and enhance the biological diversity of the UK through implementation of Habitat Action Plans (HAPs) and Species Action Plans (SAPs) for priority habitats and species. UKBAP priority habitats and species potentially relevant to the Site include pipistrelle bat (*Pipistrellus pipistrellus*) and song thrush (*Turdus philomelos*).

## Regional Planning Policy

### The London Plan: Spatial Development Strategy of Greater London, 2004

- 17.13 Objective 6 of the London Plan (Ref. 17.10) is to make London a more attractive, well-designed and green city. Policy 3D.12 sets out the Mayor's policy in relation to biodiversity and nature conservation. Of relevance to the Development it seeks measures to enhance habitat and natural landscape to achieve positive gains for conservation through the form and design of development. It also suggests that development should be resisted where it would have a significant adverse effect on the population or conservation status of protected species or priority species identified in the London BAP and Borough BAPs.

### The Mayor's Biodiversity Strategy: Connecting with London's Nature, 2002

- 17.14 Connecting with London's Nature: The Mayor's Biodiversity Strategy (Ref. 17.11) complements the London Plan. It sets out how London's biodiversity can be protected, managed and enhanced. It also aims to ensure that people can enjoy and learn about the natural world.

### London Biodiversity Action Plans, 2001-2004

- 17.15 The London Biodiversity Partnership has published the London Biodiversity Action Plan (BAP) (Ref. 17.12) which consists of eleven Habitat Action Plans (HAPs) and twelve Species Action Plans (SAPs) to date.
- 17.16 The House Sparrow (*Passer domesticus*) SAP is potentially relevant to the Site. This bird species is found in close proximity to man in urban and rural areas. It was previously abundant in urban areas yet has declined nationally by over 60% between 1977 and 2002. This decline has been particularly marked in London and the reasons for this are unknown. The London BAP includes aims to undertake measures to reverse the decline of house sparrow populations.
- 17.17 Swifts (*Apus apus*) are subject to a London BAP as populations will become increasingly threatened if special measures are not taken to ensure their future wellbeing. The Site is an area of London where swifts can be seen during the summer months.

**Local Planning Policy**

**Westminster City Council Replacement Unitary Development Plan, 2007**

17.18 Westminster City Council's (WCC's) Replacement Unitary Development Plan (UDP) (Ref. 17.13) contains policy EN17 that specifically relates to biodiversity. The implications of the policy are that existing biodiversity interest should be conserved, in particular where the interest relates to protected species. Under the UDP, developers are required to:

*"...take measures to ensure that protected species and their habitats are not harmed"*.

17.19 Policy ENV 17 also states:

*"The City Council will encourage ... the provision of new developments of features for wildlife and to promote local biodiversity"*.

**Westminster Nature Conservation Strategy, 1996**

17.20 WCC's Nature Conservation Strategy (Ref. 17.14) contains a number of aims to safeguard and enhance nature conservation attributes in WCC. Those of relevance to the Development include:

- *"Enhance other wildlife habitats and create new opportunities for wildlife wherever possible;*
- *Improve public contact and enjoyment of nature;*
- *Promote biodiversity within the City and ensure the wildlife resource is managed in a sustainable way"*.

**Open Space Strategy, February 2007**

17.21 Section 4.2 of WCC's Open Space Strategy (Ref 17.15) includes reference to maintaining and increasing the amount of wildlife habitat and biodiversity in Westminster. This is encouraged through the use of landscape planting, green roof, brown roofs and other initiatives.

**Westminster Local Biodiversity Action Plans**

17.22 The Westminster Biodiversity Partnership has published four HAPs and eight SAPs to date (Ref. 17.16). Those that are potentially relevant to the Site are summarised in Table 17.1.

**Table 17.1: Westminster Local Biodiversity Action Plans Potentially Applicable to the Site**

| Species or Habitat Action Plan                           | Summary  |
|--|--|
| House Sparrow ( <i>Passer domesticus</i> ) SAP.          | This aims to maintain and enhance breeding populations of house sparrow in Westminster and beyond. Specific aims include the reversal of the population decline, and the restoration of populations to former breeding sites.  |
| Holly Blue Butterfly ( <i>Celastrina argiolus</i> ) SAP. | The holly blue butterfly has been recorded in low densities across Westminster. However this species is notorious for its violent population fluctuations. The SAP aims to enhance existing holly blue habitat in Westminster by appropriate management and by creating new breeding habitats. |
| Hawthorn ( <i>Crataegus monogyna</i> ) SAP.              | This SAP aims to establish public interest in native shrubs and hedgerows in Westminster and to promote management of appropriate areas of shrubbery and hedgerow thereby encouraging lower canopy habitats in Westminster.  |
| Vertical Habitats Action Plan.                           | WCC's vertical HAP aims to <i>"... encourage the establishment and correct management of biodiversity on vertical surfaces throughout Westminster"</i> .<br><br>A particular emphasis placed on the inclusion of vertical habitats in new developments.  |

## ASSESSMENT METHODOLOGY AND SIGNIFICANCE CRITERIA

17.23 This section outlines the methodology used to assess the ecological baseline conditions of the Site and to place the Site in its wider ecological context. In summary, the assessment methodology has comprised the following:

- Undertaking of a desk study to establish existing baseline information for the Site and its surrounds;
- Undertaking of a Phase 1 habitat survey and protected species risk assessment at the Site;
- Evaluation of the ecological value of the Site; and
- Identification and evaluation of potential and residual effects.

### Assessment Methodology

#### Desk Study

17.24 A desk study was undertaken to obtain information regarding the present and historical ecological interest at the Site and the wider study area. As shown in Figure 17.1, for this urban Site, the wider area has been defined as the area within a 1km radius of the Site. For this assessment, the study area is synonymous with the zone of influence. Standard guidance published by the Institute of Ecology and Environmental Management (IEEM) defines the zone of influence as: *"...the areas/resources that may be affected by the biophysical changes caused by activities associated with a project..."* It is recognised that the zone of influence should be determined by professional judgment and on a site-specific basis.

17.25 Greenspace Information for Greater London (GIGL) (Ref. 17.17) was requested to provide the latest available information on:

- Sites designated for their nature conservation value;
- Records of protected species;
- UKBAP, London and WCC BAP species;
- Other species of conservation concern; and
- Any other information that they considered relevant.

17.26 GIGL is a professionally managed biological records centre that receives wildlife records from a range of local societies, including the London Natural History Society, London Bat Group and the London, Essex and Hertfordshire Amphibian and Reptile Trust. All information received from GIGL is presented in Technical Appendix 17a.

17.27 Wildlife records were further supplemented by a search of key literature, including the 'Flora of the London Area' (Ref. 17.18) and a request for black redstart records from the Chairman of the Black Redstart Working Group of the London BAP.

17.28 In addition, a web-based interactive map ([www.magic.gov.uk](http://www.magic.gov.uk)) (Ref. 17.19) which displays information on key environmental designations was searched to ensure that all information on internationally and nationally designated sites had been obtained.

#### Phase 1 Habitat Survey

17.29 A walkover survey of the Site was carried out in November 2006 and habitats were described in accordance with standard Phase 1 survey methodology (Ref. 17.20) as modified for use in the London area by the Greater London Authority (GLA) (Ref. 21). This method augments the standard Phase 1 method by providing more precise definitions of certain habitat types that are typical of the London area. It also requires fuller habitat descriptions and incorporates the collection of additional data on access and facilities, which are required for open space planning. This combined methodology therefore ensured that the habitat survey in this study was tailored to the Site in its London context. In addition, a list of plant species found on the Site, and their relative abundance was compiled.

**Protected Species Risk Assessment**

- 17.30 An assessment of the value of the Site with regard to the likely presence of bats and breeding birds, especially bird species on Schedule 1 of the WCA and/or listed in the UK, London and/or WCC BAPs, such as black redstart and house sparrow (*Passer domesticus*) was undertaken. This included an assessment of the Site buildings and other structures, such as trees, as potential bat roosts and bird nest sites.
- 17.31 The results of the protected species field survey were then combined with the results of the desk study to assess the potential of the Site to support protected species.

**Ecological Value**

- 17.32 Habitats and species on the Site and within the zone of influence of the Development were evaluated using the aforementioned IEEM guidance. The following geographic terms of reference were used:
- International;
  - National;
  - London and the South-East (i.e. regional);
  - London Borough (i.e. district);
  - Local; and
  - Within the Development's zone of influence.
- 17.33 In accordance with the latest IEEM guidelines, a range of criteria have been considered in assigning ecological value. These include:
- Presence of sites or features designated for their nature conservation interest;
  - Biodiversity value. For example, habitats or species which are rare or uncommon;
  - Secondary and supporting value. For example, habitats or features which provide a buffer to valued features or which serve to link otherwise isolated features;
  - Presence of legally protected species;
  - Presence of UKBAP, London and/or WCC BAP habitats and species;
  - Criteria used for selecting biological Sites of Special Scientific Interest (SSSIs) (Ref.17.22); and
  - Criteria recommended by the GLA for selecting sites of nature conservation importance in the London area.
- 17.34 In the London area, sites of regional or local importance for nature conservation can be identified by applying the standard criteria set out in Table 17.2. These criteria are applied together, acting as a checklist to guide professional judgements of ecological value.

**Table 17.2: Criteria for selecting Sites of Nature Conservation Importance in the Greater London Area**

| <b>Criteria</b>                  | <b>Examples of Application</b>  |
|----------------------------------|---|
| Representation                   | The best examples of each major habitat in the London area are selected.  |
| Habitat rarity                   | Sites may be selected because a particularly rare habitat is present. The presence of a rare habitat makes a site important because loss of or damage to these sites threatens the survival of the habitat in the London area     |
| Species rarity                   | Sites may be selected because a particularly rare species is present.   |
| Habitat richness                 | The diversity of different habitats present contributes to the nature conservation quality of the site.   |
| Species richness                 | The diversity of different species present contributes to the nature conservation quality of the site.  |
| Size                             | Large sites are usually more important than smaller sites because they are likely to accommodate more diverse species and habitats.   |
| Important populations of species | Some sites are important because they hold a large proportion of the London population of a species, such as waterfowl or of a London BAP species such as grey heron.   |
| Ancient character                | Sites which derive their ecological value from long-standing management systems such as traditionally managed hay meadows or ancient woodland.  |
| Recreatability                   | Sites that can not be recreated are selected, particularly where recreation is not possible (e.g. ancient woodland) or practical or cost-effective.   |
| Typical urban character          | Features such as canals, abandoned wharves, walls, bridges, tombstones, waste ground and railway sidings are artificial habitats but some are particularly rich in species and may provide habitat for rare or declining species. |
| Cultural or historic character   | Sites such as historic gardens and Victorian cemeteries with semi-wild areas are important blends of cultural and wildlife history.   |
| Geographic position              | A site that is valuable in a regional, national or international context is likely to also be important in a London context.  |
| Access                           | Sites with public access are more likely to be selected.  |
| Use                              | The importance of a site includes its current use, e.g. for education of local communities.   |
| Potential                        | Sites with potential for habitat enhancement or for educational use or amenity use are more likely to be selected.  |
| Aesthetic appeal                 | This is difficult to assess objectively but an indication is given by the numbers of people passing through or using the area for amenity use or for wildlife appreciation e.g. bird watching.                                    |

17.35 Using the criteria in Table 17.2, the GLA method then categorises important wildlife sites as described in Table 17.3.

**Table 17.3: GLA Criteria for Describing the Value of Biodiversity Features**

| Designation                      | Description   |
|----------------------------------|---|
| Sites of Metropolitan Importance | These are defined as sites which contain the best examples of London's habitats; sites which contain particularly rare species, rare assemblages of species or important populations of species; or sites which are of particular significance within otherwise heavily built up areas of London.   |
| Sites of Borough Importance      | These are defined as sites which are important from a Borough perspective in the same way as the Metropolitan sites are important to the whole of London. Although sites of similar quality may be found elsewhere in London, damage to these sites would mean a significant loss to the Borough. As with Metropolitan Sites, although protection is important, management of the Borough sites should usually allow and encourage their enjoyment by people and their use for education.<br><br>Since 1988 Borough sites are divided, on the basis of their quality, into two grades. However, the GLA stress that they are all important. |
| Sites of Local Importance        | A Site of Local Importance is one which is, or may be, of particular value to people nearby (such as residents or schools). London Ecology Unit (now part of the GLA) state that Local Sites are of particular importance in areas otherwise deficient in nearby wildlife sites.  |

### Significance of Criteria

- 17.36 The assessment of the significance of potential and residual effects is essentially a three stage process:
1. The possible mechanisms for an effect on features of nature conservation importance are identified;
  2. The magnitude of the effect is determined for each of the features identified; and
  3. The significance of the effect is determined, based on the value of the feature and the magnitude of the effect.
- 17.37 The methodology for determining the magnitude of the environmental effect broadly follows the 2006 IEEM guidance. However, this guidance does not provide an overall graded approach to summarising the magnitude of effects that is typical of many EIAs and which is applied within this ES.
- 17.38 There are a number of different approaches to determining significance. Most typically, a standard matrix approach has been used. However, the 2006 IEEM guidance recommends using a more generic approach as matrices can downplay local values for biodiversity. IEEM (2006) refers to the GLA criteria, which include consideration of local values. The GLA criteria are used in this chapter.
- 17.39 Where multiple effects occur, the highest level of significance is used to give an overall judgement. In addition, if multiple low-level effects occur, they may be cumulatively assessed as having a higher level of significance, allowing assessment of the 'worst-case' effect.

17.40 To summarise, the following significance criteria are used within this assessment:

- **Substantial beneficial:** The effect is of a magnitude likely to cause a permanent beneficial effect on the integrity of an international and/or nationally important ecological receptor;
- **Moderate beneficial:** The effect is of a magnitude likely to benefit a district and/or locally valued ecological receptor;
- **Minor beneficial:** The effect is of a magnitude likely to benefit a district and/or locally valued ecological receptor, but there will be no permanent effect on its integrity;
- **Negligible:** No significant effects;
- **Minor adverse:** The effect is of a magnitude likely to be adverse to a district and/or locally valued ecological receptor, but there will be no permanent effect on its integrity;
- **Moderate adverse:** The effect is of a magnitude likely to be adverse to a district and/or locally valued ecological receptor; and
- **Substantial adverse:** The effect is of a magnitude likely to cause a permanent adverse effect on the integrity of an international and/or nationally important ecological receptor.

#### Limitations of this Assessment

- 17.41 It should be noted that whilst every effort has been made to provide a comprehensive assessment of the Site during the field surveys, no investigation can ensure the complete prediction of the presence (or otherwise) of wildlife or vegetation.
- 17.42 The Site walkover survey was undertaken on 14 November 2006. Although November is a sub-optimal time for ecological survey, the Site is almost entirely dominated by built development with very limited landscape planting. As such, the timing of the survey does not represent a constraint and the results obtained would not be expected to be any different should further surveys be undertaken during the spring and summer months.

## BASELINE CONDITIONS

### Sites Designated for Nature Conservation

- 17.43 There are no statutory or non-statutory sites designated for wildlife interest located within the Site. However, there are seven non-statutory Sites Designated for Nature Conservation (SINCs) within the study area. Details of these are summarised in Table 17.4. Their location is shown on Figure 17.1.

Table 17.4: SNCI within the Study Area

| Site Name                        | Grid Reference | Designation                              | Approximate area (ha) | Distance from Site | Description  |
|----------------------------------|----------------|--|-----------------------|--------------------|--|
| Hyde Park and Kensington Gardens | TQ 270 802     | Site of Metropolitan Importance (SMI)    | 246 ha                |                    | Largest area of open space in Central London, recognised as having considerable importance for birds, including locally significant breeding populations of common waterfowl. The mature trees are of value to birds and invertebrates especially beetles. A small area of relict acid grassland supports the locally uncommon plant harebell.   |
| St James Park                    | TQ 295 798     | SMI                                      | 23.5ha                | 568m               | Amenity grassland; hedge; pond/lake; scattered trees; veteran trees. Buckingham Palace Gardens have been surveyed for many years by various experts from the London Natural History Society (LNHS), and have been found to support several local and nationally uncommon plants, moths and other invertebrates.  |
| Green Park                       | TQ 289 799     | SMI                                      | 19.7ha                | 635m               |  |
| Buckingham Palace Gardens        | TQ 287 796     | SMI                                      | 15.6ha                | 287m               |  |
| Eccleston Square                 | TQ 291 785     | Site of Borough Importance (SBI) Grade I | 0.8ha                 | 578m               | Amenity grassland; flower beds; planted shrubbery; scattered trees; secondary woodland. Eccleston Square hosts fifty recorded species of fungi. The herbaceous flora of Warwick Square includes wood avens ( <i>Geum urbanum</i> ), green alkanet ( <i>Pentaglottis sempervirans</i> ), lesser celandine ( <i>Ranunculus ficaria</i> ) and spring beauty ( <i>Claytonia perfoliata</i> ). Male fern ( <i>Dryopteris felix-mas</i> ) and soft shield-fern ( <i>Polystichum setifera</i> ) are also present.   |
| Warwick Square, Belgravia        | TQ 292 784     | SBI Grade I                              | 0.7ha                 | 668m               |  |
| Marlborough House Garden         | TQ 294 800     | SBI Grade I                              | 0.9ha                 | 980m               | Acid grassland; flower beds; planted shrubbery; scattered trees. Botanically the most interesting feature is the large lawn. This contains an unusual abundance of low-growing wild flowers for a central London site.   |
| Belgrave Square                  | TQ 282 794     | SBI Grade II                             | 1.5ha                 | 666m               | Amenity grassland; flower beds; planted shrubbery; scattered trees; secondary woodland. There is a great diversity of trees and shrubs, with a well-developed shrubbery including both deciduous and evergreen species and a field layer including foxglove ( <i>Digitalis purpurea</i> ), enchanter's-nightshade ( <i>Circaea lutetiana</i> ), bittersweet ( <i>Solanum dulcamara</i> ) and germander speedwell ( <i>Veronica chamaedrys</i> ). Nesting birds include mistle thrush ( <i>Turdus viscivorus</i> ) and possibly blackcap ( <i>Sylvia atricapilla</i> ). |

### Result of the Desk Study

- 17.44 Table 17.5 includes records of protected and BAP species that have been recorded within the study area.

**Table 17.5: Protected and BAP Species Recording Within the Study Area**

| Name   | Status  | Location to Site | Date of Observation |
|--|---|------------------|---------------------|
| Song Thrush ( <i>Turdus philomelos</i> )         | BAP priority (National and London)                            | 400 east         | 09/08/1995          |
|  |   | 460 south        | 04/05/1995          |
|  |   | 649 southeast    | 04/05/1995          |
|  |   | 710 west         | 04/07/1995          |
| Starling ( <i>Sturnus vulgaris</i> )             | BAP priority (London)   | 87 west          | 09/05/1995          |
|  |   | 382 west         | 04/05/1995          |
|  |   | 400 east         | 09/08/1995          |
|  |   | 460 south        | 04/05/1995          |
| House Sparrow ( <i>Passer domesticus</i> )       | BAP priority (London)   | 87 west          | 09/05/1995          |
|  |   | 382 west         | 04/05/1995          |
|  |   | 400 east         | 09/08/1995          |
|  |   | 442 east         | 19/07/1995          |
| Bats ( <i>Vespertilionidae</i> )                 |   | 758 northwest    | 16/08/1998          |
|  |   | 938 northeast    | 16/08/1998          |
|  |   | 984 northeast    | 11/11/1998          |
| Pipistrelle ( <i>Pipistrellus</i> )              | Protected under Schedule II of the Habitats Regulations, 1994 | 505 north        | 08/10/1986          |
|  |   | 696 north        | 24/06/1986          |
|  |   | 984 northeast    | 16/08/1998          |
|  |   | 994 northeast    | 28/07/1998          |
| Pipistrelle ( <i>Pipistrellus pipistrellus</i> ) |   | 356 northeast    | 27/10/2000          |
|  |   | 419 northeast    | 27/10/2000          |
|  |   | 608 west         | 23/06/2004          |
|  |   | 758 northwest    | 24/06/1998          |

- 17.45 Table 17.5 shows that there are no records for protected or BAP species within or immediately adjacent to the Site.
- 17.46 Although Table 17.5 shows that records for song thrush, starling and house sparrow exist within the study area, the lack of suitable habitat within and surrounding the Site restricts its value for these species; song thrush in particular. Therefore, these species are unlikely to be present within the Site.
- 17.47 The data search included records of pipistrelle and unspecified bat species varying from 350m and 1km away from the Site. The majority of these records date back prior to 1998, with just two in 2000 and one in 2004. The majority of these records relate to the green spaces of St James' Park and some of the garden squares Belgravia where sufficient foraging habitat exists. Bats are therefore unlikely to be present within the Site. Further details are provided later in this chapter.

### Phase 1 Habitat Survey

- 17.48 There is very little green or open amenity space within the Site. The only public open space on the Site consists of the formally landscaped intensive roof and garden area within the north-east of the Site. This forms part of the adjacent Cardinal Place development. The garden of Buckingham Palace is the next closest open space to the Site and is located approximately 500m to the north-west.

**Flora**

- 17.49 The Site is dominated by hard standing with virtually no ruderal plant species found between pavement cracks and building edges. The only wild vegetation present consists of a few specimens growing out of cracks in the hard surfacing near The Stag public house within the northeast of the Site. These include common weed species such as annual meadow grass (*Poa annua*), dandelion (*Taraxacum agg.*), groundsel (*Senecio vulgaris*) and chickweed (*Stellaria media*). These species are not protected and do not have any special conservation interest.
- 17.50 Six early mature London planes (*Platanus x hispanica*) and one mature London plane along Bressenden Place and Warwick Row are the only significant trees within the Site. There is a border planted with horticultural specimens adjacent to 1 Warwick Row on its frontage with Bressenden Place. This border includes spotted laurel (*Aucuba japonica*), ivy (*Hedera helix*, *Cotoneaster sp.*), evergreen spindle (*Euonymus japonica*) and a small cherry tree (*Prunus sp.*) None of these species are considered to be of any particular ecological value.
- 17.51 The combined intensive living roof and public open space located in the northeast of the Site is dominated by hard landscaping with green elements characterised by amenity grassland and a row of standard lime trees (*Tilia sp.*). A border of ivy, (*Hedera helix*), with ice plant, (*Sedum spectabile*) and heavily pruned hornbeam hedge (*Carpinus betulus*) also exists. Pedestrian steps leading to the lower levels of the Cardinal Place development include planters comprising fastigiated oaks (*Quercus sp.*) surrounded by a box-cut boarder of Wilson's honeysuckle, (*Lonicera nitida*).
- 17.52 The existing flora of the Site can be seen by reference to Figure 3.5.

**Fauna**

- 17.53 During the Phase 1 habitat survey, little in the way of bird life was noted apart from a few feral pigeons (*Columba livia*) and blackbirds (*Turdus merula*). Whilst it is possible that the intensive living roof and public open space in the north-west of the Site provides some limited potential for nesting and foraging bird species and invertebrates, it is anticipated that such species would be very limited, common and widespread.
- 17.54 Although all birds (and therefore feral pigeons) are protected under the Wildlife and Countryside Act 1981 (as amended), all the aforementioned species are common and widespread. As such, they do not have any special conservation interest and add little to the existing ecological value of the Site.
- 17.55 Mammals were not evident, but are likely to include brown rat (*Ratus norvegicus*) and fox (*Vulpes vulpes*).

**Potential for Other Protected and BAP Species****Black Redstart**

- 17.56 Black redstarts are an urban tolerant rare breeding bird. Populations have declined over recent years due to the loss of suitable habitat and there are now only around 100 nesting pairs in the UK. The majority are located in London and Birmingham.
- 17.57 Black redstarts are protected under the aforementioned Wildlife and Countryside Act, 1981 (as amended). They also appear on the London and the Westminster BAP.
- 17.58 The Site is not located in a black redstart priority area and the walkover survey did not reveal the presence of any particularly significant habitat for the species. However, potential foraging and breeding habitats are available in the Site surrounds, namely in the surrounding parks. It is therefore possible that black redstarts could fly over or near to the Site. Notwithstanding this, the Chairman of the Black Redstart Working Group reported that there were no known records of black redstarts within a 2km area of the Site (refer to Technical Appendix 17a).

- 17.59 In consideration of the above, it was considered that black redstart surveys would not be required to inform this assessment. This approach was agreed with the Biodiversity Officer at WCC provided that pre-demolition black redstart survey be undertaken (refer to Technical Appendix 17b). Details are provided later in this chapter.

#### Swifts

- 17.60 Swifts (*Apus apus*) are another bird under threat due to declining nesting and foraging habitat. Although not included as a London BAP species, a statement exists in the document which notes that they are in decline. Although not observed during the Phase 1 habitat survey, the Site has a high potential for swifts. This is due to the surrounding open spaces associated with the nearby Royal Parks.

#### Bats

- 17.61 The Site walkover confirmed that it would be highly unlikely for bats to be present in any of the buildings currently existing at the Site. This is due to the following reasons:
- A lack of foraging and commuting habitat;
  - Overall unsuitability of the majority of buildings as bat roosts;
  - Heavy traffic creating a noisy and polluted environment;
  - High levels of artificial light spill outside of daylight hours; and
  - More suitable habitat for bats being present in the nearby Buckingham Palace Gardens (northwest of the Site), Green Park (north of the Site), and St. James's Park (northeast of the Site).

#### Ecological Value

- 17.62 The Site has no national, regional or local wildlife designations and has limited value in terms of its biodiversity. The terrestrial area of the Site has no important or rare habitats within the context of central London.
- 17.63 The Site is highly unlikely to provide habitat for protected species apart from breeding birds, which could include swifts, black redstart, house sparrow and starling.
- 17.64 The potential for bat roosting and foraging is considered to be very low.
- 17.65 In accordance with the stated methodology, the ecological value of the Site has been evaluated as shown in Table 17.6.

**Table 17.6: Evaluation of the Site using GLA criteria**

| Criteria                        | Comments   |
|---------------------------------|--|
| Habitat rarity.                 | The area of wildlife habitat present on the Site is very limited, only likely to have a limited suitability for breeding birds and invertebrates. No semi-natural vegetation is present. |
| Species rarity.                 | There are unlikely to be any rare species present on the Site.   |
| Habitat richness.               | Habitat richness is low.   |
| Species richness.               | Species richness is very low.  |
| Size.                           | The area of wildlife habitat is very limited, covering approximately 1-2% of the Site.   |
| Important populations.          | With the exception of possible use of the Site by black redstarts the Site contains no important plant or animal species.  |
| Ancient character.              | The Site is not ancient in character.  |
| Recreatability.                 | The habitats present are potentially recreatable.  |
| Typical urban character.        | The Site is typically urban in character.  |
| Cultural or historic character. | The Site has no cultural or historic character of any bearing on wildlife habitats   |
| Geographic position.            | The Site is situated in an inner city area surrounded largely by urban development although the open spaces of Buckingham Palace Garden, St James's Park and Green Park are close by.    |
| Access.                         | The Site has public access via the network of local streets.   |
| Use.                            | The majority of the Site is currently subject to a variety of uses including office, leisure, residential and retail.  |
| Potential.                      | There is little wildlife potential within the Site as it currently exists.   |
| Aesthetic appeal.               | The limited areas of existing wildlife habitat offer little in the way of aesthetic appeal.  |

17.66 In consideration of the information provided in Table 17.6, the terrestrial ecology at the Site does not qualify as a Site of Local Importance for Nature Conservation and is of very low intrinsic ecological value within a local and regional context.

**POTENTIAL EFFECTS**

17.67 A number of biophysical changes can occur as a result of development activities. Those that are potentially applicable to the Development include:

- Disturbance due to construction operations, including noise, vibration and light spillage at night;
- Loss of low ecological value flora communities; and
- Creation of additional habitat for certain species favouring the urban environment.

17.68 The importance of these potential effects at the Site is assessed in the following section. Potential effects are assessed against the existing baseline conditions and represent a 'worst case' scenario.

## Demolition and Construction

### Sites Designated for Nature Conservation

- 17.69 Table 17.4 demonstrates that there are seven non-statutory SINC's located within 1km of the Site. These are designated primarily for their botanical or breeding bird interest. None of these are adjacent to the Site and the nearest are those of Buckingham Palace Gardens (287m north of the Site) and St James's Park (568m northeast of the Site).
- 17.70 Although redevelopment works could bring about noise, dust and light pollution disturbances, it is considered that this would have no significant effect upon surrounding SINC's. This is primarily due to the fact that all species associated with the SINC's are already adapted to inner urban environments and are tolerant of significant noise disturbance likely to be of a similar magnitude to that generated by the demolition and construction works. In addition, construction derived dust is typically deposited within 200m of a noise construction Site (refer to Chapter 10: Air Quality). Furthermore, Chapter 16: Daylight, Sunlight, Overshadowing, Light Pollution and Solar Glare concludes that levels of existing light spill at night are already very high and these would not be significantly altered by the demolition and construction works. In addition levels of light rapidly decrease with distance from the source. As such, the geographical distance of the SINC's from the Site would eliminate any potential for significant light pollution effects.
- 17.71 In consideration of the above, the effects of demolition and construction upon sites designated for nature conservation would be **negligible**.

### Habitats and Flora

- 17.72 The Development would result in the complete loss of the very limited areas of amenity planting present within the Site, with the exception of the Cardinal Place roof garden which is to be reconfigured as part of the proposals. However, as previously mentioned this habitat is considered to be of very low ecological value. The effect on existing flora is therefore considered to be **negligible**.

### Fauna

#### *Common and widespread species*

- 17.73 Due to the loss of flora as described above, the Development would result in the loss of the existing limited nesting and foraging opportunities for common and widespread bird and invertebrate species within the Site. However, due to the intensely urban nature of the Site and its surrounds, existing bird populations are likely to be restricted and in very low numbers and therefore any loss of bird nesting habitat would be very limited. Although all nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended), due to the ecological enhancements proposed as part of the Development (refer to Chapter 5: The Proposed Development and later in this chapter) the potential effects of demolition and construction activities upon the common and widespread fauna are considered to be **temporary, short to medium** term and of **minor adverse** significance.

#### *Other Protected and BAP Species*

- 17.74 The Phase 1 habitat survey and data search revealed that the Site presents a very low potential for any other protected and/or BAP species including black redstarts and bats. For this reason, it is considered that there would be **negligible** effect to other protected and/or BAP species.

## Completed Development

### Sites Designated for Nature Conservation

- 17.75 As previously stated, seven non-statutory SINC's are located within 1km of the Site. The nearest of those is Buckingham Palace Garden (located 287m north of the Site). All other SINC's are located more than 500m from the Site. All species associated with these SINC's are already adapted to highly disturbed urban environments and for the reasons previously stated, light spillage from the Developments is not considered to be a significant issue for the SINC. As such, the potential effects of the completed and operational Development upon sites designated for nature conservation would be **negligible**.

### Habitats, Flora and Fauna (including Protected and BAP Species)

- 17.76 As described in Chapter 5: The Proposed Development, the Development would comprise some landscape planting. At ground level, this would include native trees within Station Place, to the east of Building 4, along Bressenden Place and within the Cardinal Place roof garden and three trees in Central Square to the south of Building 6. The proposed trees would consist of native or closely allied species suited to urban situations. In addition, a number of planters would be included to the east of Building 2A, in the centre of Victoria Street and within Bressenden Foyer. These would support species such as hawthorn, holly (*Ilex aquifolium*) and ivy (*Hedera helix*), the latter two species being larval food plants of the holly blue butterfly (*Celastrina argiolus*).
- 17.77 The landscape planting described above would increase the flora present on the Site and would help to deliver Westminster's nature conservation objectives by providing additional habitat for birds and invertebrates.
- 17.78 At roof level, the Development would provide 3,600m<sup>2</sup> of brown roof on Buildings 2, 4, 5, 6B, 7A and 8. These would be constructed using shallow layers of recycled aggregate or similar material in order to create an environment suitable for ruderal plant species bryophytes, invertebrates and that in turn, would provide a food source for a variety of bird species; including swifts and black redstart. The roofs would be bespoke designed to ensure that the most appropriate habitat for attracting swifts and black redstarts is created. Although it is acknowledged that the Site currently has a low potential for black redstart, the provision of favourable brown roof habitat has the potential to attract this species to the Site.
- 17.79 2,220m<sup>2</sup> of green roofs would be provided on Buildings 2, 4, 5, 6A, 7A, Pavilion 1 and Cardinal Place roof garden. These would have the potential to provide habitats for wildflowers, invertebrates and bird species.
- 17.80 In addition to the above, the Development would also provide a variety of bird nesting boxes within the fabric of the proposed building. These would include 60 swift boxes constructed in six groups of ten boxes and twenty open fronted and hole boxes suitable for house sparrow (a WCC BAP species). The exact location of these boxes would be determined at the detailed design stage. All boxes would be located at appropriate height and location to maximise their effectiveness.
- 17.81 The ecological enhancements described above are considered to result in **long-term, local** effects of **moderate beneficial** significance.

## MITIGATION

### Demolition and Construction

- 17.82 Where practicable, demolition and Site clearance works would be carried out outside of the bird breeding season (March to August inclusive). However, if vegetation clearance or building demolition does take place during the bird nesting season, an Ecological Watching Brief would be implemented. If any nesting birds are found to be breeding on the Site, an appropriate Method Statement would be agreed in consultation with Natural England. This would include measures to prevent any disturbance to breeding birds, including the cessation of any construction works in areas close to breeding sites if necessary.
- 17.83 Effects on bats during demolition and construction would be negligible. Therefore, no mitigation measures are deemed necessary.
- 17.84 Compliance with the Site Specific Environmental Management Plan (EMP) (refer to Chapter 6: Development Programme, Demolition and Construction) would ensure mitigation measures are implemented during the demolition and construction works. The EMP would include for the suitable training of construction site workers to ensure they are aware of the ecological issues associated with the Site.

### Completed Development

- 17.85 Habitat enhancement and creation would act to provide ecological enhancement to the Site. However, to ensure long term success monitoring of the brown and green roofs and bird nest boxes would be undertaken every two years. Should these be found to be operating sub-optimally, additional measures would be incorporated. For example, pre-recorded tapes of swift calls may be required to attract birds to the nest boxes.
- 17.86 It is anticipated that a planning condition requiring the submission and approval of the ecological features on the proposed buildings prior to commencement of the Development would be included in the planning permission sought.

## RESIDUAL EFFECTS

### Demolition and Construction

#### Sites Designated for Nature Conservation

- 17.87 As previously stated, no internationally, nationally or locally designated sites for nature conservation would be affected by the demolition and construction process. The residual effect would therefore be **negligible**.

#### Habitats and Flora

- 17.88 Terrestrial habitats at the Site are of very low ecological value, therefore temporary losses of habitat during the demolition and construction activities would be adequately compensated for during once the Development is completed. The residual effect on habitat loss at the Site would therefore be **negligible**.

#### Fauna

##### *Common and widespread species*

- 17.89 Demolition and construction activities could cause some temporary loss of potential nesting habitat and disruption to any birds foraging on the Site. However, pre-demolition checks and preventive measures as described above would ensure that nesting birds are not disturbed. The effect is therefore considered to be **negligible**.

***Other Protected and BAP species***

- 17.90 No evidence of black redstart or swifts using the Site or its immediate vicinity was gathered during the desk top study or during the Phase 1 habitat survey. Furthermore, a monitoring programme would be implemented to ensure that works do not disturb this species if found nesting on the Site. The effect is therefore considered to be **negligible**.
- 17.91 The Site has been confirmed to be unsuitable for bats, residual effects would therefore be **negligible**.

**Completed Development****Sites Designated for Nature Conservation**

- 17.92 As mentioned above, the completed Development would not affect the site designated for nature conservation. The residual effect would therefore be **negligible**.

**Habitats Flora and Fauna (including Protected and BAP Species/Habitats)**

- 17.93 Ecological enhancement features included in the Development would comprise the provision of landscape planting, green and brown roofs and bird nesting boxes. These would be supplemented by a monitoring programme to ensure efficacy.
- 17.94 The proposed enhancements would increase the potential for the Site to support swift, house sparrow, black redstart and holly blue butterfly, all of which are local BAP species. The residual effect of the completed Development would be **long-term, local** and of **moderate beneficial** significance.

**SUMMARY AND CONCLUSIONS**

- 17.95 The Site is not covered by any statutory or non-statutory nature conservation designations and is situated within an area containing few valued ecological receptors. The ecological survey showed that the Site is of very limited interest for its intrinsic ecological interest and its potential to support a diverse range of species or protected or otherwise notable species. There would be no significant effects on local biodiversity either on Site or in its vicinity during the construction phase.
- 17.96 The Development would include ground level landscaping, brown roofs, green roofs and bird nesting boxes. All would act to significantly enhance the ecological value of the Site.
- 17.97 A summary of the potential and residual effects is presented within Table 17.7.

Table 17.7: Summary of the Potential and Residual Effects

| Issue  | Potential Effects  | Mitigation  | Residual Effects                                       |
|--|--|---|--|
| <b>Demolition and Construction</b>   |  |   |  |
| The Site is adequately geographically removed from all designated sites for nature conservation. In addition, all demolition and construction effects would be Site specific and localised to the areas of demolition and construction activity. | <b>Negligible</b>  | None required   | <b>Negligible</b>                                      |
| Loss of small areas of low value planting.   | <b>Negligible</b>  | None required   | <b>Negligible</b>                                      |
| Loss of small area of bird nesting and foraging habitat.   | <b>Temporary, short to medium term, local effects of minor adverse significance.</b> | Demolition and Site clearance works to be carried out outside of the bird breeding season where practicable. If not, Ecological Watching Brief to be maintained over the duration of the works.<br>Compliance with a Site Specific EMP. | <b>Negligible</b>                                      |
| <b>Completed Development</b>   |  |   |  |
| Provision of ground level landscaping, brown roofs, green roofs and bird nesting boxes.  | <b>Long-term, local effects of moderate beneficial significance.</b>                 | Monitoring of brown roofs, green roofs and bird nesting boxes to ensure long-term effectiveness.  | <b>Long-term, district level, moderate beneficial.</b> |