South Wales Metro

Task Order 028I - Taffs Well Depot Outline Planning: Preliminary Ecological Appraisal and Bat Survey

March 2018
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Executive summary

Mott MacDonald has been commissioned by Transport for Wales (TfW) to provide planning and technical support during the current procurement phase for the next ‘Wales and Borders Rail Service’ which will include the development of the South Wales Metro Phase 2, focusing specifically on the Core Valley Lines (CVL).

Welsh Government has procured a site at Taffs Well which TfW intends to redevelop as an Operator and Development Partner (ODP) rolling stock depot for use by the successful operator currently being procured.

To inform this planning application, Mott MacDonald Limited has been commissioned by TfW to undertake a Preliminary Ecological Appraisal (PEA) and further bat survey work. The site is located in the south east of Taffs Well at grid reference ST 1230 8323.

The purpose of the appraisal is to undertake a review of the current habitats (and their potential to support protected species), in order to facilitate the development of the proposal. This report presents the results of these findings and are summarised below.

A review of the biological records for the site and surrounds indicate that protected species of birds, mammals (including badger, otter, water vole, dormice, bats, hedgehogs), reptiles, amphibians, and invertebrates are present within 2.0km of the site.

Habitats identified during the survey suggest the potential to support birds, bats and reptiles.

The designated site Cardiff Beech Woods Special Area of Conservation (SAC) present within the defined search area of the site which is designated for having one of the largest concentrations of Asperulo-Fagetum beech forests in Wales. Based on the works potential to impact on the SAC, a Habitat Regulations Assessment (HRA) screening has also been undertaken.

Based on the results of the desk study and site walkover, surveys were undertaken for roosting bats which identified one common pipistrelle re-entering a building. It is considered to be a small roost of common bats likely to be used by males or non-breeding females. It is advised that a bat licence is sought from Natural Resources Wales to enable the works. This bat licence would include a requirement for mitigation.

Mitigation has also been recommended for bats in trees and other structures, breeding birds, reptiles and invasive species.
1 Introduction

1.1 Project Description and Scope of Works

Mott MacDonald has been commissioned by Transport for Wales (TfW) to provide planning and technical support during the current procurement phase for the next ‘Wales and Borders Rail Service’ which will include the development of the South Wales Metro Phase 2, focusing specifically on the Core Valley Lines (CVL). This programme of works, funded by the Welsh and UK Governments and the European Commission, will transform the rail network involving extensive investment in new rolling stock, stations and associated infrastructure. It will deliver a step change in the public transport offer bringing about improved connectivity between the CVL and Cardiff and providing a much needed modern, reliable and efficient public transport system.

As part of the investment required to transform the rail network, additional depot and stabling facilities are required to accommodate the new fleet of rolling stock. As such, Welsh Government undertook a comprehensive site search process to find suitable and available land. This has resulted in Welsh Government acquiring the former ‘Forgemasters’ building and associated land at Garth Works Industrial Estate in Taffs Well. The whole site area, including the associated works to Taffs Well Station, extends to some 5.4 hectares and is shown on drawing number 367590-28I-XX-DR-C-0005.

In order to ensure early delivery of investment for the CVL and minimise risk to the preferred bidder (who will be named the Operator and Development Partner (ODP) once the procurement process is concluded, Welsh Government and TfW are seeking to secure outline planning permission for the depot and associated works.

In order to accommodate the specific operational requirements of the preferred ODP, the planning permission needs to have flexibility and as such, a ‘Hybrid’ Planning Application for the depot and associated works is being sought from Rhondda Cynon Taf County Borough Council as the Local Planning Authority. The hybrid planning application will seek full planning permission for the demolition of the existing buildings within the industrial estate and outline planning permission for construction of the depot and associated works. This approach provides flexibility for TfW in allowing demolition and site clearance works to commence in advance of works for the main depot and then the detailed design of the depot and associated works being dealt with through a Reserved Matters Planning Application. It is anticipated however, that the outline element of the planning permission for the depot and associated works will be subject to maximum parameters in terms of built floorspace, car parking and general alignment of highway infrastructure. These parameters and principles will then need to be reflected in the preferred ODP’s detailed design solution through any Reserved Matters application.

An indicative masterplan (Drawings 367590-28I-XX-DR-C-0002 and 0003) of the Taffs Well Depot has been prepared which indicates the construction of the following:

- A new rolling stock depot comprising of:
  - Multiple stabling lines;
  - A maintenance workshop with offices above;
  - A rolling stock washing facility;
  - A sand replenishment plant;
  - A delivery track where rolling stock will be delivered on HGVs and lifted onto the depot tracks;
- A substation; and
- Staff parking and increased park and ride spaces.

**Associated works will include:**
- Local highways and rail infrastructure improvements;
- A new footbridge over Taffs Well Station;
- Extension to the existing Taffs Well Station western platform; and
- Improvements to the Taff Trail cycle and pedestrian path.

The key parameters are listed below:

- **Whole site area** is 5.4 hectares. This includes all land within the red line boundary (Drawing number 367590-28I-XX-DR-C-0004) which includes the associated works at and around Taffs Well Station;
- **Developable site area** is 3.6 hectares. This is the main depot site between the A470 and Ffordd Bleddyn, as shown on drawing 367590-28I-XX-DR-C-0005;
- **Total approximate floor space** will be as below:
  - 3770m² of workshop floor space;
  - 2372m² of office floor space over two floors;
  - 400m² and 100m² of storage buildings floor space; and
  - Combined this comes to a total of approximately 6642m².
- The tallest building is the maintenance workshop with offices above at 13.5m tall, smaller than the existing 15m tall Forgemasters building; and
- The design of the depot allows for different types and sizes of rolling stock and power options including electric and diesel.

The full development description for the project is as follows:

- Hybrid Planning Application for the construction of the Taffs Well Depot on land at the Garth Works Industrial Estate in Taffs Well;
- Part A: Full planning application for the demolition and site clearance works associated with existing buildings and structures on the Garth Works Industrial Estate; and
- Part B: Outline planning application with all matters reserved for the construction of the Taffs Well Depot including: multiple stabling lines; a maintenance workshop with offices above; a rolling stock washing facility; a sand replenishment plant; a delivery track; a substation; staff parking and increased park and ride spaces; highways and rail infrastructure improvements; modifications to Taffs Well Station and landscaping.
1.2 Site Description

As set out above the site is located in the south east of Taffs Well at grid reference ST 1230 8323 and covers an area of approximately 5.4 ha. The location plan of the site is provided in Figure 1 below.

Figure 1: Site Location Plan

The Site consists of a hardstanding surface with multiple car parks, roads and building structures for industrial and commercial use. In terms of habitats, the site is therefore dominated by hardstanding and buildings with occasional amenity trees, grassland and shrub planting as well as bare ground and tree lines associated with the railway.

1.3 Scope of the Report

The purpose of this report is to (i) provide an initial appraisal of the ecological importance of the habitats in the areas relevant to the proposed works at the site; (ii) provide an assessment of the potential for these areas to support protected ecological features and species; and (iii) report the results of the bat survey work undertaken at the site.

This PEA report has been prepared in accordance with Planning Policy Wales in relation to Biodiversity and Conservation. All areas within the site boundary and relevant areas surrounding the site were surveyed.

The aims of this assessment are to:

- Identify and assess the nature conservation value of the habitats and species near and adjacent to the site;
- Report the results of the bat survey work and assessment undertaken; and
- Provide recommendations on mitigation and compensation measures (and, as appropriate), for scheme design and to inform the hybrid planning application.
1.4 Legislative Context and Policy Framework

1.4.1 Legislation


Appendix A outlines species specific legislation.

The Natural Environment and Rural Communities (NERC) Act 2006 requires public bodies, including local authorities, ‘to have regard to the conservation of biodiversity in England’ when carrying out their normal functions. Also under Section 40 of this Act a list of species of ‘principal importance to biodiversity within England’ was drawn up for England (section 41) and Wales (section 42), which acts as an aid to guide public bodies in implementing their duty. In Wales, this list of habitats and species (section 42) has subsequently been superseded by section 7 of The Environment Act (Wales) 2016. The Local Authority therefore would have a duty to consider the impact of the proposed works on species and habitats of principal importance.

1.4.2 National Planning Policy

At national level, Chapter 5 of Planning Policy Wales (which relates to conserving and enhancing the natural environment) requires Local Authorities to take measures to:

- Promote the conservation of landscape and biodiversity, in particular the conservation of native wildlife and habitats;
- Ensure that action in Wales contributes to meeting international responsibilities and obligations for the natural environment;
- Ensure that statutorily designated sites are properly protected and managed;
- Safeguard protected species; and
- Promote the functions and benefits of soils, and in particular their function as a carbon store.

Developers must ensure that they comply with the above legislation by fully assessing the potential impacts on protected species and habitats from the proposed development. Where planning permission is required, this assessment must be finalised prior to and included with the submission of the planning application. The Planning Authority can then ensure that the necessary protected species and habitats surveys have been completed.

1.4.3 Local Planning Policy

At a local level, planning policies are set out within ‘Rhondda Cynon Taf Local Development Plan up to 2021’ (Adopted March 2011), whilst supplementary information is set out within RCT’s ‘Supplementary Planning Guidance: Nature Conservation’ (Adopted March 2011).

Two policies are of relevance to ecology:

- Policy AW5 – New Development; and
- Policy AW8 – Protection and Enhancement of the Natural Environment.

These are described below.

**Policy AW5** states that:

“Development proposals will be supported where:—

....(b) Where appropriate, existing site features of the build and natural environmental value would be retained...”.

**Policy AW8** states that:

“Rhondda Cynon Taf’s distinctive natural heritage will be preserved and enhanced by protecting it from inappropriate development.

Development proposals will only be permitted where:-

1. They would not cause harm to the features of a Site of Importance for Nature Conservation (SINC) or Regionally Important Geological Site (RIGS) or other locally designated sites, unless it can be demonstrated that:-
   a. The proposal is directly necessary for the positive management of the site; or
   b. The proposal would not unacceptably impact on the features of the site for which it has been designated; or
   c. The development could not reasonably be located elsewhere and the benefits of the proposed development clearly outweigh the nature conservation value of the site.

2. There would be no unacceptable impact upon features of importance to landscape or nature conservation, including ecological networks, the quality of natural resources such as air, water and soil, and the natural drainage of surface water.

All development proposals, including those in built up areas, that may affect protected and priority species will be required to demonstrate what measures are proposed for the protection and management of the species and the mitigation and compensation of potential impacts.

Development proposals must be accompanied by appropriate ecological surveys and appraisals, as requested by the Council.

Development proposals that contribute to the management or development of Ecological Networks will be supported.”
2 Methodology

2.1 Zone of Influence

The current guidance on ecological assessments (Chartered Institute of Ecology and Environmental Management (CIEEM), 2016) recommends that all ecological features that occur within a ‘Zone of Influence’ (ZoI) for a proposed development are investigated.

The ZoI includes:

- Areas directly within the land take for the proposed development and access;
- Areas which will be temporarily affected during construction;
- Areas likely to be impacted by hydrological disruption; and
- Areas where there is a risk of pollution and noise disturbance during construction and/or operation.

The ZoI is variable depending on the nature of the construction activities and the ecological receptors affected. For this assessment the following zones have been defined, following guidance set out within the Design Manual for Roads and Bridges (HD44/09):

<table>
<thead>
<tr>
<th>Ecological features</th>
<th>Zone of Influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designated sites</td>
<td>2km</td>
</tr>
<tr>
<td>Designated sites for bats</td>
<td>30km</td>
</tr>
<tr>
<td>Protected species records</td>
<td>500m</td>
</tr>
<tr>
<td>Protected species evidence</td>
<td>Within the site boundary</td>
</tr>
</tbody>
</table>

2.2 Desk Study

A desk study was undertaken, as recommended in the CIEEM ‘Guidelines for Preliminary Ecological Appraisal’ (2016), to determine the presence of any designated nature conservation sites and protected or notable species within 500m of the site. To ensure the validity of the data, only records collected in the last 10 years and within 2km for designated sites and protected species records of the site were requested from the South East Wales Biodiversity Record Centre (SEWBReC). This data has been further curtailed to the nearest record for each species recorded, raw data is available on request following terms and conditions.

The desk study involved consulting the following sources:

- South East Wales Biodiversity Record Centre (SEWBReC);
- Natural Resources Wales (NRW);
- Rhondda Cynon Taf Local Biodiversity Action Plan (LBAP);
- Rhondda Cynon Taf Local Development Plan (Adopted March 2011);
- Cardiff Council Supplementary Planning Guidance – Biodiversity Part 2: The Cardiff Resources (June 2011); and
- Multi Agency Geographical Information for the Countryside (MAGIC).
2.3 Site Walkover

A walkover of the site was undertaken on 02 June 2017 and a further visit completed on 22 August 2017 to assess the habitats and presence or absence of protected and notable species within the zone of influence of the proposed works. This was based on the known distribution of species, habitat suitability and/or direct evidence such as field sights or observations. The methodologies and assessment criteria used were based on current published guidance. All habitats within the site were identified and mapped in compliance with the ‘Handbook for Phase 1 Habitat Survey: a technique for environmental audit’ (JNCC, 2010). Dominant plant species were noted, as were any protected, uncommon or invasive species listed on Schedule 9 of the WCA.

2.4 Bat Inspection Surveys

2.4.1 Building Inspection

An initial walkover was undertaken by a licenced bat ecologist on 2nd June 2017 to assess the potential for roosting bats within the buildings onsite. This inspection involved an external search of the buildings for evidence of roosting bats, such as accumulations of droppings or obvious scratch / wear marks. An internal inspection of the building could not be undertaken due to the presence of asbestos.

In order to provide context to the building assessments, an assessment was also made to determine the value of the habitat types within and surrounding the site for bat foraging potential including connectivity to other suitable habitat within the surrounding area.

All field surveys for roosting features and habitats have been classified using Table 2 below. This assessment process was also applied to other structures where relevant.

Table 2: Bat Suitability Classification

<table>
<thead>
<tr>
<th>Bat Roosting Potential</th>
<th>Description of Roosting Habitats (Buildings / Trees)</th>
<th>Commuting and Foraging Habitats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negligible</td>
<td>Negligible habitat features on site likely to be used by roosting bats.</td>
<td>Negligible habitat features on site to be used by commuting or foraging bats.</td>
</tr>
<tr>
<td>Low</td>
<td>A structure with one or more potential roost features (PRF) 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). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited rooting potential.</td>
<td>Habitat that could be used by small numbers of commuting bats such as a hedgerow with gaps or un-vegetated stream, but isolated, (i.e. not very well connected to the surrounding landscape by other habitat). Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.</td>
</tr>
<tr>
<td>Moderate</td>
<td>A structure or 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).</td>
<td>Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.</td>
</tr>
<tr>
<td>High</td>
<td>A structure or 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</td>
<td>Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such</td>
</tr>
</tbody>
</table>
Bat Roosting Potential | Description of Roosting Habitats (Buildings / Trees) | Commuting and Foraging Habitats
--- | --- | ---
potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. | as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broad-leaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.


2.4.2 Ground-Based Tree Inspections

Trees were assessed within the site location and were inspected for potential roost features (PRF) as identified within Collins (ed. 2016)

PRFs may include the following:
- Woodpecker holes;
- Rot holes;
- Hazard beams;
- Other vertical or horizontal cracks;
- Partially detected bark;
- Knot holes;
- Man-made holes;
- Cankers;
- Other hollows or cavities;
- Double-leaders;
- Gaps between overlapping steams or branches,
- Partially detached ivy with stem diameters in excess of 50mm;
- Bat, bird or dormouse boxes.

Any evidence of bats using PRFs was also noted and may include the following;
- Bat droppings in, around or below the PRF;
- Odour emanating from a PRF;
- Audible squeaking at dusk or in warm weather;
- Staining below the PRF.

Trees were assessed as per the classification detailed above in Table 2.

2.5 Bat Emergence / Re-entry Surveys

As several of the buildings onsite were assessed as having potential to support roosting bats, further emergence / re-entry surveys were undertaken. All bat surveys were undertaken in accordance with the Bat Conservation Trust 'Bat Surveys Good Practice Guidelines' (2016). Surveyors stood in positions across the site allowing all buildings with bat potential to be covered (see Appendix B). Details of the surveys are presented in Table 3 below:
Table 3: Bat Emergence / Re-entry Survey Details (see PLAN for building and surveyor position numbers)

<table>
<thead>
<tr>
<th>Date</th>
<th>Sunset/Sunrise (BST)</th>
<th>Start Time</th>
<th>End Time</th>
<th>Temperature (°C)</th>
<th>Rain</th>
<th>Cloud Cover (%)</th>
<th>Wind (Beaufort Scale)</th>
<th>Buildings surveyed</th>
<th>Positions covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>26/06/17</td>
<td>21:34 / N/A</td>
<td>21:19</td>
<td>23:12</td>
<td>17</td>
<td>None</td>
<td>100</td>
<td>0</td>
<td>B11, B13, B15, B15a, B16, B17</td>
<td>P12, P13, P14, P15, P16, P17</td>
</tr>
<tr>
<td>27/06/17</td>
<td>21:35 / N/A</td>
<td>21:20</td>
<td>23:15</td>
<td>18</td>
<td>None</td>
<td>100</td>
<td>1</td>
<td>B1, B3, B4a, B4c, B6</td>
<td>P1, P2, P3, P4, P5</td>
</tr>
<tr>
<td>29/06/17</td>
<td>21:34 / N/A</td>
<td>21:21</td>
<td>22:40</td>
<td>15</td>
<td>Light</td>
<td>100</td>
<td>0</td>
<td>B6, B9, B14, B15</td>
<td>P6, P7, P8, P9, P10, P11</td>
</tr>
<tr>
<td>13/07/17</td>
<td>N/A / 05:11</td>
<td>03:41</td>
<td>05:11</td>
<td>13</td>
<td>None</td>
<td>70</td>
<td>0</td>
<td>B1, B3, B4a, B4c, B6</td>
<td>P1, P2, P3, P4, P5</td>
</tr>
<tr>
<td>13/07/17</td>
<td>N/A / 21:25</td>
<td>21:20</td>
<td>23:02</td>
<td>18</td>
<td>None</td>
<td>100</td>
<td>1</td>
<td>B4a</td>
<td>P3</td>
</tr>
<tr>
<td>22/08/17</td>
<td>06:10 / N/A</td>
<td>04:40</td>
<td>06:10</td>
<td>15</td>
<td>None</td>
<td>0</td>
<td>1</td>
<td>B6, B9, B11, B13, B14, B15, B15a, B16, B17</td>
<td>P6, P7, P8, P9, P10, P11, P12, P13, P14, P15, P16, P17</td>
</tr>
<tr>
<td>07/09</td>
<td>N/A</td>
<td>19:30</td>
<td>21:15</td>
<td>Light</td>
<td>100</td>
<td>1</td>
<td>B14</td>
<td>P10</td>
<td></td>
</tr>
</tbody>
</table>

The surveys were carried out by experienced surveyors using Batloggers, EM3+s and Anabat Expresses to identify the species of bats and behaviours observed. The recordings made during the surveys were then analysed using ‘Analook’ software.

2.6 Limitations

Biological records obtained from third parties and presented in the desk study do not represent a full and complete species list for the area. They are mostly given by individuals on an ad hoc basis, often meaning there are areas of deficiency in the data.

Ecological surveys are limited to factors which affect the presence of plants and animals, such as time of year, migration patterns and behaviour. With a single survey visit it is possible that certain species may have been overlooked or under-recorded during the assessment as optimal survey periods vary from species to species. This PEA therefore cannot be considered to provide a wholly comprehensive account of the ecological interest of the site and it should be noted that this report does not constitute an Ecological Impact Assessment (EcIA). The survey does however provide a “snapshot” of the ecological interest present on the day of the survey visit. Nonetheless, the surveys were undertaken at an appropriate time of year for botanical surveys and, given the habitats present at site, the survey work can be considered sufficient to allow an adequate assessment of the value of the site.

Due to the presence of asbestos identified within the asbestos risk register, internal building bat surveys could not be undertaken. As such, the presence / absence of bats could not be confirmed within these buildings during the walkover survey. Therefore emergence / re-entry surveys were undertaken in order to ascertain presence / likely absence of bats.

Areas of the site include an active railway line and therefore could not be accessed due to health and safety restrictions for survey. As such, a proportionate and, where reasonable, precautionary approach to the assessment has instead been applied.
The results taken from bat detector recordings are biased towards bats that use louder echolocation calls. Therefore, quiet species such as brown long-eared bats may be under recorded due to the limited recording range of the equipment.

It is difficult to confidently relate calls registered to numbers of bats present, even if more than one bat pass is detected simultaneously. The number of bat passes do not provide any indication of bat abundance; it is intended to only indicate the level of activity at a particular point. For the purposes of this survey, this is considered sufficient to inform an assessment of use of the site by bats.
3 Results, Interpretation and Assessment - PEA

3.1 Desk Study

The results of the desk study are presented below.

3.1.1 Statutory Designated Sites

A total of seven designated sites at national level have been identified within 2.0km of the site. This includes six Sites of Special Scientific Interest (SSSI) and one Special Area of Conservation (SAC) which contains several of the SSSIs. The results of the search for statutory designated sites are presented below:

Table 4: Statutory Designated Sites

<table>
<thead>
<tr>
<th>Name</th>
<th>Status</th>
<th>Details</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiff Beech Woods</td>
<td>SAC</td>
<td>Cardiff Beech Woods contains one of the largest concentrations of <em>Asperulo-Fagetum</em> beech forests in Wales, and represent the habitat close to the western limit of its past native range in both the UK and Europe. The woods show mosaics and transitions to other types, including more acidic beech woodland and oak <em>Quercus</em> and ash <em>Fraxinus excelsior</em> woodland. Characteristic and notable species in the ground flora include ramsons <em>Allium ursinum</em>, sanicle <em>Sanicula europaea</em>, bird’s-nest orchid <em>Neottia nidus-avis</em> and yellow bird’s-nest <em>Monotropa hypopitys</em>.</td>
<td>0.13km</td>
</tr>
<tr>
<td>Castell Coch Woodlands &amp; Road Section</td>
<td>SSSI</td>
<td>The woodlands surrounding Castell Coch occupy steep south and west facing slopes overlooking Cardiff and the Taf Vale. They form part of the &quot;Taf Gorge complex&quot; of woodlands of which beech is a major constituent species, and this is thought to be one of its most westerly natural sites in Britain.</td>
<td>0.13km</td>
</tr>
<tr>
<td>Garth Wood</td>
<td>SSSI</td>
<td>Garth Wood is of special interest for its semi-natural broadleaved woodland, particularly its stands of beech woodland, growing near the western limit of its natural range. The site is also of special interest for the nationally rare spider <em>Porrhomma rosenhaueri</em>, found within Lesser Garth Cave.</td>
<td>0.24km</td>
</tr>
<tr>
<td>Ton Mawr &amp; Taffs Well Quarries</td>
<td>SSSI</td>
<td>Ton Mawr and Taffs Well Quarries are areas of special interest designated for their geological features.</td>
<td>0.55km</td>
</tr>
<tr>
<td>Fforestganol a Chwm Nofydd</td>
<td>SSSI</td>
<td>Fforestganol a Chwm Nofydd is of special interest for its semi-natural broadleaved woodland. The site supports woodland vegetation assignable to the habitat types ‘Asperulo - Fagetum’ beech forests’ and ‘Tilio - Acerion’ ravine forests’ listed on Annex I of the EC Habitats and Species Directive (Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna). The site includes Fforest Ganol and Cwm Nofydd Local Nature Reserves</td>
<td>1.13km</td>
</tr>
</tbody>
</table>
An artificial wetland ecosystem adjoining a river terrace woodland of considerable antiquity. Beech (*Fagus sylvatica*) is a major constituent of the woodland. A range of habitats from open-water, alder (*Alnus glutinosa*) carr, scrub and deciduous woodland are included within the site. The eutrophic water of the canal supports a characteristic flora and fauna including a range of macrophytes and a number of macro-invertebrates that are locally important.

Source: MAGiC & NRW

In addition, there is one SAC designated for bats within 30.0km of the site, which is Usk Bat Sites SAC located approximately 29.8km north east of the site at its closest point. The Usk Valley area contains one of the largest maternity roosts for lesser horseshoe bat (*Rhinolophus hipposideros*) as well as a number of important hibernation sites. This SAC is also designated for a number of Annex 1 habitats including European dry heaths, degraded raised bogs, blanket bogs, calcareous rocky slopes, caves and *Tilio-Acerion* forests.

Consideration of the European designations under the Habitats Regulations is provided within Appendix C.

### 3.1.2 Non-statutory Designated Sites

No non-statutory designated sites have been identified within or adjacent to the site.

A number of non-statutory designations have been identified from within 2km of the site using the Rhondda Cynon Tal Local Development Plan (Adopted March 2011) and Cardiff Council Supplementary Planning Guidance – Biodiversity Part 2: The Cardiff Resources (June 2011).

The closest of these designations is Fforest Fawr (located approximately 0.05km east of the site) and the River Taff (located approximately 0.14km west) of the site.

### 3.1.3 Biological Records

The protected species records within 500m obtained from the SEWBReC records centre for the site are summarised below; the full list is available on request (subject to confidentiality agreements with SEWBReC).

#### 3.1.3.1 Birds

Records consisting of twenty four species of birds were returned from within 500m of the site. Eight Schedule 1 species listed in the WCA were recorded, a summary is provided in Table 5 below:

### Table 5: WCA Bird species records within 500m

<table>
<thead>
<tr>
<th>Species</th>
<th>Total number of records</th>
<th>Closest record</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barn owl (Tyto alba)</td>
<td>1</td>
<td>1.5km</td>
</tr>
<tr>
<td>Brambling (Loxia curvirostra)</td>
<td>14</td>
<td>0.3km</td>
</tr>
<tr>
<td>Common firecrest (<em>Regulus ignicapilla</em>)</td>
<td>1</td>
<td>1.7km</td>
</tr>
<tr>
<td>Northern goshawk (<em>Accipiter gentilis</em>)</td>
<td>3</td>
<td>0.6km</td>
</tr>
<tr>
<td>Common kingfisher (<em>Alcedo atthis</em>)</td>
<td>9</td>
<td>0.1km</td>
</tr>
<tr>
<td>Osprey (<em>Pandion haliaetus</em>)</td>
<td>3</td>
<td>0.2km</td>
</tr>
<tr>
<td>Peregrine falcon (<em>Falco prrgrinus</em>)</td>
<td>5</td>
<td>0.2km</td>
</tr>
</tbody>
</table>
3.1.3.2 Mammals

Records of mammals were returned from within 500m of the site including the following species.

Badger

Nine records of badger (*Meles meles*) were returned within 500m with the closest record located approximately 0.2km away.

Otter

Four records of otter (*Lutra lutra*) were returned within 500m of the site, the closest record located less than 0.1km from the site.

Polecat

One record of polecat (*Mustela putorius*) was returned within 500m, this was recorded located less than 0.1km from the site.

Hedgehog

Sixteen records of hedgehog (*Erinaceus europaeus*) were returned within 500m of the site with the closest record located approximately 0.13km from the site.

Water Vole

One record of water vole (*Arvicola terrestris*) was returned approximately 0.5km away.

Bats

One hundred and eighty nine records of bats were identified within 500m. A summary of records are listed in Table 6 below:

<table>
<thead>
<tr>
<th>Species</th>
<th>Total number of records</th>
<th>Closest record</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common pipistrelle (<em>Pipistrellus pipistrellus</em>)</td>
<td>83</td>
<td>0.1km</td>
</tr>
<tr>
<td>Soprano pipistrelle (<em>P. pygmaeus</em>)</td>
<td>51</td>
<td>0.005km</td>
</tr>
<tr>
<td><em>Pipistrellus</em> species</td>
<td>3</td>
<td>0.1km</td>
</tr>
<tr>
<td>Long-eared species (<em>Plecotus sp.</em>)</td>
<td>4</td>
<td>0.1km</td>
</tr>
<tr>
<td>Daubenton’s (<em>Myotis daubentonii</em>)</td>
<td>13</td>
<td>0.1km</td>
</tr>
<tr>
<td>Whiskered bat (<em>M. mystacinus</em>)</td>
<td>2</td>
<td>0.6km</td>
</tr>
<tr>
<td>Serotine (<em>Eptesicus serotinus</em>)</td>
<td>2</td>
<td>0.5km</td>
</tr>
<tr>
<td>Noctule (<em>Nyctalus noctula</em>)</td>
<td>3</td>
<td>0.1km</td>
</tr>
<tr>
<td>Greater horseshoe bat (<em>Rhinolophus ferrumequinum</em>)</td>
<td>4</td>
<td>0.6km</td>
</tr>
<tr>
<td>Lesser horseshoe bat</td>
<td>9</td>
<td>0.2km</td>
</tr>
<tr>
<td>Unidentified bat</td>
<td>23</td>
<td>0.1km</td>
</tr>
</tbody>
</table>

Source: SEWBReC
3.1.3.3 Reptiles and amphibians

Twenty two records of reptiles were identified within 500m of the site. A summary of the records is set out within Table 7 below:

Table 7: Reptile and amphibian records within 500m

<table>
<thead>
<tr>
<th>Species</th>
<th>Total number of records</th>
<th>Closest record</th>
</tr>
</thead>
<tbody>
<tr>
<td>European adder (Vipera berus)</td>
<td>7</td>
<td>0.8km</td>
</tr>
<tr>
<td>Common frog (Rana temporaria)</td>
<td>6</td>
<td>0.3km</td>
</tr>
<tr>
<td>Common lizard (Zootoca vivipara)</td>
<td>1</td>
<td>0.3km</td>
</tr>
<tr>
<td>Common toad (Bufo bufo)</td>
<td>4</td>
<td>0.4km</td>
</tr>
<tr>
<td>Palmate newt (Lissotriton helveticus)</td>
<td>1</td>
<td>0.2km</td>
</tr>
<tr>
<td>Slow worm (Anguis fragilis)</td>
<td>9</td>
<td>0.2km</td>
</tr>
</tbody>
</table>

Source: SEWBRc

3.1.3.4 Invertebrates

Notable invertebrate species recorded within 500m include dingy skipper (Erynnis tages), white-letter hairstreak (Satyrium w-album) and stag beetle (Lucanus cervus), as well as a number of other moths.

3.1.3.5 Flora

Two records of the notable plant species yellow bird’s-nest (Hypopitys monotropa) was returned from within 2km of the site, the nearest of which is from approximately 0.2km from the site. Records of bluebell (Hyacinthoides non-scripta) were also returned from within 500m.

3.2 Site walkover

The Phase 1 Habitat Map is provided in Appendix D with target notes, and photographs in Appendices E and F respectively. Target notes are discussed in the following section and referred to as TN1, TN2 etc.

3.2.1 Habitats

Broadleaved woodland – semi-natural (A1.1.1)

Broadleaved woodland, in the form of wooded belts, was identified on the north-western, western and eastern boundaries of the site (Figure 3 and 4). Although this habitat was largely located outside of the site boundary (and beyond the physical boundary fencing on site) it nevertheless forms a boundary feature. This woodland comprises tree and scrub species and appears mostly self-seeded or to have originated as landscape buffer planting to the A470, with much of the tree line located on an embankment either sloping up to the adjacent Taff Trail (west of the site) or down to the A470 (east of the site). Canopy and understorey species recorded included ash (Fraxinus excelsior), hazel (Corylus avellana), alder (Alnus glutinosa), silver birch (Betula pendula), sycamore (Acer pseudoplatanus), hawthorn (Crataegus monogyna), holly (Ilex aquifolium), dogwood (Cornus sp.), goat willow (Salix caprea), willow (Salix sp.), buddleia (Buddleia sp.), rose (Rosa sp.) and bramble (Rubus fruticosus). Ground flora species recorded in these habitats include clematis (Clematis sp.), common nettle (Urtica dioica), male fern (Dryopteris filix-mas), hart’s tongue fern (Asplenium scolopendrium), hedge woundwort (Stachys sylvatica), tufted vetch (Vicia cracca), hemp agrimony (Eupatorium cannabinum), ivy (Hedera sp.) and horsetail (Equisetum sp.).
Hollyberry cotoneaster (*Cotoneaster bullatus*) was identified on the woodland edge adjacent to the western station platform.

**Broadleaved parkland/scattered trees (A3.1)**

Scattered trees were situated across the site and included young Norway maple (*Acer platanoides*) and ash trees planted for landscaping within the main depot and the station carpark (Figure 5).

**Dense continuous scrub (A2.1)**

Areas of dense scrub were identified in several locations across the site, largely associated with boundary habitats and the railway verges (Figure 6 and 7). The species associated with this habitat comprised buddleia, ash, bramble, sycamore, hawthorn, blackthorn (*Prunus spinosa*), birch (*Betula* sp.), dogwood, willow and rose. Other ruderal and herb species recorded within or closely associated with the scrub include ivy, hemp agrimony, broad-leaved willowherb (*Epilobium montanum*), clematis, hedge bindweed (*Calystegia sepium*), dock sp., prickly sow-thistle (*Sonchus asper*), wild parsnip (*Pastinaca sativa*) and broadleaved everlasting pea (*Lathyrus latifolius*).

A stand of Japanese knotweed (*Fallopia japonica*) was also identified on the southern boundary of the site within scrub and within scrub / woodland on the eastern site boundary.

**Tall ruderal vegetation (C3.1)**

Areas of tall ruderal dominated vegetation are located between areas of dense scrub onsite (Figure 8). Species included a range of ruderal and occasional herb and scrub species including broad-leaved willowherb, great willowherb (*Epilobium hirsutum*), Canadian fleabane (*Erigeron canadensis*), hemp agrimony, buddleia, herb Robert (*Geranium robertianum*), redshank (*Persicaria maculosa*), hedge woundwort, cocksfoot grass (*Dactylis glomerata*), creeping thistle (*Cirsium arvense*), ragwort (*Jacobaea vulgaris*), oxeye daisy (*Leucanthemum vulgare*), hedge mustard (*Sisymbrium officinale*), bristly oxtongue (*Helminthotheca echioides*), hawkweed (*Hieracium* sp.), creeping buttercup (*Ranunculus repens*), dandelion (*Taraxacum* sp.), common mouse ear (*Cerastium fontanum*), wild carrot (*Daucus carota*), cleavers (*Galium aparine*), perennial ryegrass (*Lolium perenne*), meadow buttercup (*R. acris*), meadow vetchling (*Lathyrus pratensis*), dock sp., groundsel (*Senecio vulgaris*), ribwort plantain (*Plantago lanceolata*), creeping cinquefoil (*Potentilla reptans*), wood avens (*Geum urbanum*), perforate St John’s-wort (*Hypericum perforatum*), hairy tare (*Vicia hirsuta*), prickly sow-thistle, ragwort and herb robert.

**Amenity grassland (J1.2)**

Several areas of amenity grassland were identified on the western side of the site associated with the railway station carpark (Figure 9). These areas were closely mown at the time of survey. The amenity grassland was dominated by perennial ryegrass but did include occasional herb and young ruderal species, particularly at the margins, including wild parsnip, ribwort plantain, self-heal (*Prunella vulgaris*), dandelion, groundsel, bentgrass (*Agrostis* sp.), red clover (*Trifolium pratense*), silverweed (*Argentina anserina*), dock sp., horsetail, creeping cinquefoil, greater plantain (*Plantago major*), cocksfoot, creeping buttercup, yarrow (*Achillea millefolium*), thyme-leaved speedwell (*Veronica serpyllifolia*), oxeye daisy and common mouse ear.
Neutral grassland – semi-improved (B2.2)

An area of semi-improved grassland is present alongside the railway line in the far west of the site (Figure 10). It was not possible to access this area to identify species but this area appeared to be dominated by coarse grass species and comprised a long-sward.

Ephemeral/short perennial vegetation (J1.2)

A small area of ephemeral/short perennial vegetation was identified on the south-western edge of the site, growing over ballast along the eastern edge of the railway line (adjacent to TN3) (Figure 11). Species identified within this area included red bartsia (*Odontites vernus*), bird’s-foot trefoil (*Lotus corniculatus*), wild carrot, clover (*Trifolium* sp.), perennial ryegrass, ribwort plantain, himalayan balsam (*Impatiens glandulifera*), rush (*Juncus* sp.), black medick, oxeye daisy, herb robert and evening primrose (*Oenothera biennis*).

Hedge with trees – species-poor (J2.3.2)

A number of amenity hedgerows are present around the carparking areas associated with the railway station, in the west of the site, which are actively managed to a height of approximately 1.5 – 2m with occasional trees (Figure 12). These hedgerows are species poor and comprise species such as hazel, silver birch, dogwood, beech and clematis.

Intact hedge – species-poor (J2.1.2)

An amenity hedgerow is present along the railway platform in the west of the site. This hedgerow was well managed to a height of approximately 1.5m and was dominated by beech (Figure 12).

Introduced shrub (J1.4)

Areas of amenity planting are present within the site around car parking areas. These areas were dominated by low growing Wilson’s honeysuckle (*Lonicera nitida*) along with occasional walnut (*Juglans regia*).

Buildings and Other Structures (J1.4)

A total of 19 buildings were identified onsite (Figure 13). A location plan detailed these buildings is provided within Appendix B. Buildings within the site were generally recorded to be in active use as workshops, garages or offices and we of varying conditions, although many were in a poor state of repair. Individual building descriptions and photographs are provided in Appendix G.

In the south of the site, the railway line also passes beneath a road bridge.

Hardstanding (J3.6)

The site was largely dominated by hardstanding which forms the car parks, roads and surrounds the buildings. Hardstanding areas typically comprised macadam, concrete or gravel (Figure 8, 9 and 13). Areas outside of the depot were in a good state of repair albeit areas in the depot were variable. Occasional weed species were recorded at margins or growing through cracks, which included willowherb (*Epilobium* sp.), bittercress (*Cardamine* sp.), canadian fleabane, chickweed (*Stellaria media*), greater plantain, pineappleweed (*Matricaria discoidea*), knotgrass (*Polygonum aviculare*), groundsel and black medick (*Medicago lupulina*).
Bare ground (J4)
The train line running north to south through the site contained ballast. This habitat was typically devoid of vegetation other than occasional weeds and stands of Himalayan balsam (as set out above in respect of the ephemeral / short perennial habitats) (Figure 10 and 11).

Wall (J2.5)
A brick wall, adjacent to the road, is located in the south-west of the site which forms the retaining wall for the road over the railway line.

3.2.2 Protected or notable species

3.2.2.1 Birds
No birds were observed or heard during the survey.

3.2.2.2 Mammals
No evidence of any badgers, otters, polecats, hedgehogs, water voles, or bats, or evidence of these species, were recorded during the initial walkover surveys.

Further survey work in the form of emergence / re-entry surveys for bats did record use of the site by bats. This is reported separately in section 4 below.

3.2.2.3 Reptiles and amphibians
No reptiles or amphibians, or evidence of these species, were recorded during any of the surveys.

3.2.2.4 Invertebrates
No invertebrates, or evidence of invertebrates were recorded during the surveys.

3.3 Interpretation
The interpretation of the desktop review and site study results are discussed under the appropriate headings below.

3.3.1 Designated Sites
The nearest statutory designated site is Castell Coch Woodlands and Road Section SSSI, which is located 0.1km from the site at its nearest point. This designated site also forms part of the Cardiff Beech Woods SAC.

A Habitats Regulations Assessment (HRA) screening has been undertaken to determine if the proposed development will have an impact on the European designated site, which has concluded that no likely significant effects are anticipated (see Appendix C).

Non-statutory designations are all located well outside of the boundary and are such that no direct or indirect effects as a result of the proposals are anticipated.

3.3.2 Habitats and Notable Plant Species
The habitats within the site are not considered to be of ecological value at a local level and are not considered to meet the description for national or local priority habitats. The Rhondda Cynon Taf Local Biodiversity Action Plan does include action plans for ‘urban’ habitats and industrial
estates, but these are aimed at enhancements rather than value of existing features. As such, habitats are not considered further in this report.

The wooded belts on the site boundaries support a number of native tree species and some structural diversity. These habitats are unlikely to represent good examples of priority habitats but are nonetheless considered to be of ecological value in the context of the site, whilst they also form potential wildlife corridors.

The site is not considered to support any notable or rare flora.

3.3.3 **Invasive species**

Stands of Japanese knotweed, Himalayan balsam and hollyberry cotoneaster were observed within boundary vegetation within or immediately adjacent to the site (TN1 – TN4).

3.3.4 **Protected or Notable species**

3.3.4.1 **Birds**

The woodland and scrub areas onsite are considered suitable to provide nesting and foraging opportunities for a number of common birds throughout the year. The buildings on site may also provide opportunities for nesting birds.

3.3.4.2 **Mammals**

**Badgers**

The site contains limited features to support this species, as such, the species is no longer considered within this report.

**Otters**

The site contains limited features to support this species, as such, the species is no longer considered within this report.

**Polecats**

The site contains limited features to support this species, as such, the species is no longer considered within this report.

**Hedgehogs**

The site contains limited features to support this species. Hedgehog may use amenity grassland and the wooded belts although these are generally isolated from more suitable habitats and so are unlikely to be of value to this species at a local level.

**Water Voles**

The site contains limited features to support this species, as such, the species is no longer considered within this report.

**Bats**

A number of buildings, structures and trees within the site have been assessed for their potential to support roosting bats. These are described separately below:
Buildings

Table 7 below sets out the results of the scoping assessments of the buildings on site, whilst full descriptions of the buildings and the features supported by each are set out in Appendix B. In summary seven buildings, or sections of buildings, were assessed as having negligible potential to support roosting bats, six were assessed as having low potential and ten as having moderate potential to support roosting bats.

During the emergence / re-entry surveys it was noted that several areas of the site were brightly lit during the night and the site was actively used such that it was noisy. This was factored into the assessment of value in Table 7 below.

Table 8: Building assessments for roosting bats

<table>
<thead>
<tr>
<th>Building number</th>
<th>Bat roosting potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>Moderate</td>
</tr>
<tr>
<td>B2</td>
<td>Low</td>
</tr>
<tr>
<td>B3</td>
<td>Moderate</td>
</tr>
<tr>
<td>B4a</td>
<td>Moderate</td>
</tr>
<tr>
<td>B4b</td>
<td>Negligible</td>
</tr>
<tr>
<td>B4c</td>
<td>Moderate</td>
</tr>
<tr>
<td>B5</td>
<td>Negligible</td>
</tr>
<tr>
<td>B6</td>
<td>Moderate</td>
</tr>
<tr>
<td>B7</td>
<td>Negligible</td>
</tr>
<tr>
<td>B8a</td>
<td>Negligible</td>
</tr>
<tr>
<td>B8b</td>
<td>Negligible</td>
</tr>
<tr>
<td>B9</td>
<td>Low</td>
</tr>
<tr>
<td>B10</td>
<td>Low</td>
</tr>
<tr>
<td>B11</td>
<td>Low</td>
</tr>
<tr>
<td>B12</td>
<td>Low</td>
</tr>
<tr>
<td>B13</td>
<td>Low</td>
</tr>
<tr>
<td>B14</td>
<td>Moderate</td>
</tr>
<tr>
<td>B15</td>
<td>Moderate</td>
</tr>
<tr>
<td>B15a</td>
<td>Moderate</td>
</tr>
<tr>
<td>B16</td>
<td>Moderate</td>
</tr>
<tr>
<td>B17</td>
<td>Moderate</td>
</tr>
<tr>
<td>B18</td>
<td>Negligible</td>
</tr>
<tr>
<td>B19</td>
<td>Negligible</td>
</tr>
</tbody>
</table>

On the basis of the above assessment, in line with best practice guidance, further bat emergence / re-entry survey work was undertaken in respect of buildings with low or moderate bat roosting potential. The results of this survey work and interpretation are set out in section 4.

Structures

A road bridge is present over the railway line in the south of the site which could offer some suitability for roosting bats. This bridge could not be accessed for survey and assessment due to health and safety restrictions (access to the railway line itself would be required).

The platforms at Taffs Well railway station are hollow beneath and could therefore offer some potential for roosting bats, although the stations are lit and the areas are noisy which would limit the suitability for bats.
Trees

A number of trees or tree groups were identified as having potential to support roosting bats. These are listed below:

- Tree group 1 (G1, see Appendix D at TN5) contained approximately nine sycamore trees with ivy cover and was assessed as having low potential to support roosting bats.
- Tree group 2 (G2, see Appendix D at TN7) contained a minimum of two ivy-covered willow trees with low potential to support roosting bats. One tree within this group, tree 2 (T2) was identified as a dead tree with splits and ivy and holds moderate potential for bats. It is likely that there are further trees in this group with bat potential, however, due to access constraints these could not be fully assessed.
- Two further willow trees (T1 and T3, see Appendix D at TN6 and TN8) on the north-western edge of the site were covered in ivy and assessed as having low potential to support roosting bats.

3.3.4.3 Reptiles and Amphibians

Areas of ballast, scrub and ruderal vegetation have suitability to support foraging and hibernating reptiles.

No ponds were identified within 250m. As such, great crested newts are no longer considered within this report.

3.3.4.4 Invertebrates

The site contains limited features to support notable invertebrates, as such, these species are no longer considered within this report.

3.4 Assessment

The proposed development will result in the loss of buildings and hardstanding within the depot, whilst boundary habitats could be affected by construction works. As such, the proposed works may have an adverse effect, in the absence of mitigation, on boundary habitats and protected or notable species, whilst consideration also needs to be given during construction to invasive plant species. This is summarised in Table 9 below:

<table>
<thead>
<tr>
<th>Table 9: Assessment summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Feature</strong></td>
</tr>
<tr>
<td><strong>Habitats adjacent to the site</strong></td>
</tr>
<tr>
<td>Broadleaved woodland</td>
</tr>
<tr>
<td><strong>Protected and/or notable species within the survey area</strong></td>
</tr>
<tr>
<td>Breeding birds</td>
</tr>
<tr>
<td>Feature</td>
</tr>
<tr>
<td>--------------</td>
</tr>
<tr>
<td>Reptiles</td>
</tr>
<tr>
<td>Bats</td>
</tr>
</tbody>
</table>

**Invasive Species**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Location</th>
<th>Level of Protection</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japanese Knotweed</td>
<td>Within scrub / woodland on the eastern and southern site boundaries</td>
<td>This plant is listed on Schedule 9 part II of the Wildlife and Countryside Act.</td>
<td>This plant species is present adjacent to the site and therefore the proposals could cause this species to spread.</td>
</tr>
<tr>
<td>Himalayan Balsam</td>
<td>Within the railway ballast in the west of the site</td>
<td>This plant is listed on Schedule 9 part II of the Wildlife and Countryside Act.</td>
<td>This plant species is present within the site and therefore the proposals could cause this species to spread.</td>
</tr>
<tr>
<td>Hollyberry cotoneaster</td>
<td>On the woodland edge adjacent to the western station platform.</td>
<td>This plant is listed on Schedule 9 part II of the Wildlife and Countryside Act.</td>
<td>This plant species is present within the site and therefore the proposals could cause this species to spread.</td>
</tr>
</tbody>
</table>

Source: Mott MacDonald Ltd
4 Bat Survey Results, Interpretation and Assessment

4.1 Background
Bat activity surveys were recognised as an early constraint and an initial walkover was undertaken by a licenced bat ecologist on 2nd June 2017, which identified a number of buildings as having bat roosting potential. As such, further surveys were completed in August and September 2017. This section sets out the results of these surveys.

4.2 Results

4.2.1 Emergence / re-entry surveys
Bats were detected on five of the seven activity surveys conducted onsite, generally at low levels. One common pipistrelle was observed re-entering underneath flashing on the eastern-facing elevation of Building 14 (see Appendix B and Figure 2 below for location).

Figure 2: Common pipistrelle bat re-entry point

4.2.2 Foraging
Low levels of foraging and commuting activity by common pipistrelle, soprano pipistrelle and noctule bats were observed during the activity surveys.
4.3 Interpretation and Assessment

4.3.1 Legislative Context and Policy Framework
Throughout Britain, bat numbers have suffered a decline in recent years and, as a result, all species of British bat are protected by legislation.

All species of British bats and their roosts are fully protected under Schedule 5 of the Wildlife & Countryside Act 1981 (WCA) with additional protection offered under Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (CHSR). This makes it an offence to kill, injure or disturb bats or obstruct access to, damage or destroy bat roosts. Under this legislation, a roost is determined as any structure or place used for shelter. As bats tend to reuse the same roosts, the roost is protected whether the bats are present at the time or not.

The unmitigated redevelopment of existing roost and foraging sites is an important factor in the decline in bat populations and national planning policy has been devised to halt or reverse this decline. Paragraph 98 of the Government Circular 06/05 (Office of Deputy Prime Minister) states that ‘the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat’. Paragraph 99 also states that ‘It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision.

4.3.2 Roosting
One common pipistrelle was observed re-entering underneath flashing on the eastern-facing elevation of Building 14. This is considered to be a small roost of common bats likely to be used by males or non-breeding females.

The current proposals will result in the loss of this building and therefore destruction of a bat roost. A licence will therefore be required for demolition works. This is set out in section 5 below.

4.3.3 Foraging
Low levels of foraging and commuting activity by common and soprano pipistrelles and noctule bats were observed during the activity surveys. Given the habitats present, the site is not considered to be of particular value for foraging or commuting.
5 Conclusions and Recommendations

5.1 Conclusions
A bat walkover, PEA survey and further bat emergence / re-entry surveys were undertaken to inform the potential impact on protected and notable habitats and species from the proposed developments at Taffs Well Depot. Cardiff Beech Woods SAC is located approximately 0.1km south-west of the site.

The site is dominated by habitats considered of low ecological value, albeit they do have potential to support breeding birds, reptiles, and bats. The bat emergence / re-entry surveys confirmed the presence of a small roost used by common pipistrelle (one bat was observed re-entering Building B14) as well as low level of foraging and commuting activity from small numbers of common bats (common pipistrelle, soprano pipistrelle and noctule). Based on the current scope of works, appropriate recommendations have been made below.

5.2 Recommendations - Mitigation
The following recommendations are relevant to the habitats and species present or likely to be present on site. As the design of the proposed works is in the outline stage it is recommended that an ecologist is consulted throughout the design process to ensure that the ecological issues are considered at all stages. Table 9 contains a summary of the recommendations, based on the current scope of works.

5.2.1 Habitats adjacent to the site
The wooded belts at the site boundaries are considered to be of elevated ecological value in the context of the site and also provide suitable habitat for a range of protected species. These habitats should be retained and protected during construction works, where possible, using heras fencing or similar in line with BS5837:2012.

5.2.2 Invasive species
Japanese knotweed, Himalayan balsam and hollyberry cotoneaster are present within or adjacent to the site. These species are listed under schedule 9 part II of the Wildlife and Countryside Act, such that it is an offence to cause these species to spread in the wild. As such, all construction works should be undertaken under an invasive species method statement to include specific measures to control, avoid or eradicate these species as required. Where works are not anticipated to affect these species, a 7m working buffer is advised to prevent the spread of these species.

5.2.3 Protected and Notable Species
The survey area contains habitat suitable to a number of protected species, whilst a building within the site has been confirmed to support a non-breeding roost of common pipistrelle bat. Recommendations to safeguard these species under the proposals are included below:

Breeding birds
The survey area contains habitat suitable to support nesting birds; these comprise woodland and scrub habitat. It is recommended that the clearance of vegetation is avoided where possible, but where vegetation must be removed, the clearance works should be undertaken.
outside of the nesting season. This is widely considered to be from March to August inclusive, but can vary depending on the species and/or seasonal conditions.

Where vegetation cannot be removed outside of the nesting season, pre-clearance checks must be undertaken by an experienced ecologist to identify if any birds are nesting within or close to the vegetation due to be removed. An informed decision should then be made if the vegetation clearance can be undertaken. If a bird nest is found, it must be left in-situ and protected from works. No works can be undertaken in that area until the young birds have fledged from the nest site. This may take several weeks and will vary depending on the species.

Mammals

Bats

Buildings, other structures and trees onsite were identified as having varying potential to support roosting bats. Areas of woodland around the site provided suitable foraging habitat for bat species. Further surveys undertaken identified one common pipistrelle re-entering Building B14 under flashing on the eastern-facing elevation. This is considered to be a small roost of common bats likely to be used by males or non-breeding females. Low levels of foraging were identified by common bats across the site.

The proposed works are therefore anticipated to cause the destruction of a confirmed bat roost and could cause disturbance to other features which could be used by bats. Due to the extent of works required on site and specifically to the works within the building, it is advised that a bat licence is sought from Natural Resources Wales to enable the building demolition works and that a precautionary approach is taken with regard to all other works in the vicinity of trees or structures with bat roosting suitability. Any bat licence would include a requirement for mitigation, which would be agreed with NRW, but would likely involve the following:

- Ecological supervision of demolition of building B14;
- A tool box talk to all site staff undertaking the demolition works;
- Removal of features of bat potential from building B14 by hand; and
- Provision of replacement roosting opportunities in the form of a bat box on a retained tree or other feature within the site.

For works affecting station platforms, the railway bridge and/or trees with low bat potential, it is recommended that works are undertaken under a precautionary method statement. This should include safeguarding measures such as a toolbox talk and ecological supervision, where necessary, of certain works. This method statement should be produced at the detailed design stage on assessment of the finalised proposals and where necessary, consideration would be given to the need for licensing or consultation with NRW.

Standard best practice working measures are also advised as part of a Construction Environmental Method Statement (CEMP) during construction works, to ensure that impacts such as increased noise, dust, vibration and lighting are minimised.

The proposed works are not considered to restrict the movements of bats that currently forage or commute over the site. There is currently a high level of disturbance due to the use of the site.

Reptiles

The tall ruderal, scrub and wooded habitats have potential to support common reptile species. Works to these habitats should be avoided where possible, but where vegetation has to be
removed, this should be undertaken under an ecological method statement which sets out appropriate safeguards for reptiles. Such measures would be agreed at the detailed stage but would include phased clearance of vegetation (first to a height of 30cm, then to ground level) towards retained areas, under ecological supervision. Vegetation clearance should be undertaken between April and the end of October, whilst reptiles are active. A toolbox talk should also be provided to all those working on site. If evidence of reptiles is found, work in that area should cease until advice has been obtained from a suitably qualified ecologist.

5.3 Recommendations – Enhancements

At national level, Chapter 5 of Planning Policy Wales (which relates to conserving and enhancing the natural environment) requires Local Authorities to take measures to promote the conservation of landscape and biodiversity. Further, at a local level, policy AW9 of Rhondda Cynon Taf’s Local Development Plan (adopted 2011) sets out the objectives for the protection and enhancement of the natural environment and specifically state ‘Development proposals that contribute to the management or development of Ecological Networks will be supported’.

It is therefore recommended that, to comply with the above planning policy, the opportunity is taken to incorporate ecological enhancements into the scheme design. It is anticipated that habitat management and enhancements would be agreed as part of the scheme design at the detailed stage. However, based on the current proposals, the following enhancements are considered to be appropriate:

- **New Landscape Planting**: new landscape planting should incorporate native species or species of wildlife value (i.e. fruit bearing shrubs). New and retained habitats should be subject to ecologically sensitive management (i.e. timing of cutting to ensure flowers or fruits are available to wildlife);
- **Bat Boxes**: new bat boxes could be installed on buildings, structures and trees to provide replacement and enhanced roosting opportunities within the site;
- **Bird Boxes**: new bird boxes could be installed on buildings, structures and trees to provide enhanced nesting opportunities for birds within the site; and
- **Insect Boxes**: insect boxes could be installed in new landscape planting or retained areas of woodland at site boundaries to provide enhanced nesting opportunities for invertebrates.
6 References

Cardiff Council Supplementary Planning Guidance – Biodiversity Part 2: The Cardiff Resources (June 2011)


 Countryside Council for Wales (CCW) website: http://www.ccw.gov.uk/


Joint Nature Conservation Council (JNCC) website: http://jncc.defra.gov.uk/


Multi-Agency Geographic Information for the Countryside (MAGIC) website: http://magic.defra.gov.uk/


Newport Biodiversity Partnership The Newport Local Biodiversity Action Plan

South East Wales Biological Record Centre (2017) Biodiversity Data Search: Metro

The Rhondda Cynon Taf Local Development Plan (Adopted March 2011)

UK Grid Reference Finder website: http://gridreferencefinder.com/

Where’s the path website: http://wtp2.appspot.com/wheresthepath.htm
# Appendices

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</table>
A. Species-Specific Legislation

The following information in this appendix relates to species assessed within this document as being potentially affected by the proposed works and is a summary version of the full legislative text only. The relevant acts referred to in this appendix should be referred to for the full legislative text.

**Breeding Birds**

All breeding birds are protected under the Wildlife and Countryside Act (WCA) 1981 (as amended) which prohibits the intentional killing, injuring or taking of any wild bird (and) the taking, damaging or destroying eggs or of the nest (whilst being built or in use). Schedule 1 bird species are afforded greater protection under the WCA. It is an offence to disturb Schedule 1 birds or the dependants in the vicinity of their nest site.

**Bats**

All bat species are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitat and Species Regulations 2010. This means it is illegal to intentionally or deliberately kill, injure, disturb or capture these species or damage, destroy or obstruct access to any structure, breeding or resting place used by them.

**Reptiles**

Reptiles have varying degrees of protection under the Wildlife and Countryside Act 1981 (as amended). The four wide spread species of reptiles that are protected under Schedule 5 are common lizard (Zootoca vivipara), slow-worm (Anguis fragilis), grass snake (Natrix natrix) and adder (Vipera berus). This means it is prohibited to intentionally kill, injure or trade these species.

**Invasive Species**

Schedule 9, Section 14 of the Wildlife and Countryside Act (1981, as amended) prohibits the introduction into the wild of any species that is not ordinarily resident in and is not a regular visitor to Great Britain in a wild state, or any species of the 69 plants listed on Schedule 9.

The frequently encountered invasive species within proposed development sites include Japanese knotweed (Fallopia japonica); Giant hogweed (Heracleum mantegazzianum); Himalayan balsam (Impatiens glandulifera); Floating pennywort (Hydrocotyle ranunculoides); New Zealand pygmyweed (Crassula helmsii); Rhododendron (Rhododendron ponticum); and certain hybrids of the above, some species may be native yet are listed for conservation purposes.

Plant or soil material contaminated by Japanese knotweed that is to be discarded is considered to be a ‘controlled waste’ under the Environmental Protection Act 1990 (EPA 1990). It is an offence to deposit, treat, keep, or dispose of controlled waste without a licence. Furthermore knotweed that has been cut down and removed must be received by an authorised person to be disposed of correctly. A licence can be obtained from the Environment Agency (EA). The release or planting of a listed species in the wild can be permitted under a licence granted by the relevant statutory body.
B. Bat Potential Plan
C. Assessment of Implications on European Sites (AIES)
South Wales Metro

Task Order 028I - Taffs Well Depot Planning: Assessment of Implications on European Sites (AIES)

16 November 2017
South Wales Metro

Task Order 028I - Taffs Well Depot Outline Planning: Assessment of Implications on European Sites (AIES)

November 2017
Issue and Revision Record

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<td>A</td>
<td>16/11/2017</td>
<td>L Woolley</td>
<td>J Bates, R Purslow</td>
<td>C Williams</td>
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A. Location of European Sites 19
1 Introduction

1.1 Project Description

Mott MacDonald has been commissioned by Transport for Wales (TfW) to provide planning and technical support during the current procurement phase for the next ‘Wales and Borders Rail Service’ which will include the development of the South Wales Metro Phase 2, focusing specifically on the Core Valley Lines (CVL). This programme of works, funded by the Welsh and UK Governments and the European Commission, will transform the rail network involving extensive investment in new rolling stock, stations and associated infrastructure. It will deliver a step change in the public transport offer bringing about improved connectivity between the CVL and Cardiff and providing a much needed modern, reliable and efficient public transport system.

As part of the investment required to transform the rail network, additional depot and stabling facilities are required to accommodate the new fleet of rolling stock. As such, Welsh Government undertook a comprehensive site search process to find suitable and available land. This has resulted in Welsh Government acquiring the former ‘Forgemasters’ building and associated land at Garth Works Industrial Estate in Taffs Well. The whole site area, including the associated works to Taffs Well Station, extends to some 5.4 hectares and is shown on drawing number 367590-28I-XX-DR-C-0005.

In order to ensure early delivery of investment for the CVL and minimise risk to the preferred bidder (who will be named the Operator and Development Partner (ODP) once the procurement process is concluded, Welsh Government and TfW are seeking to secure outline planning permission for the depot and associated works.

In order to accommodate the specific operational requirements of the preferred ODP, the planning permission needs to have flexibility and as such, a ‘Hybrid’ Planning Application for the depot and associated works is being sought from Rhondda Cynon Taf County Borough Council as the Local Planning Authority. The hybrid planning application will seek full planning permission for the demolition of the existing buildings within the industrial estate and outline planning permission for construction of the depot and associated works. This approach provides flexibility for TfW in allowing demolition and site clearance works to commence in advance of works for the main depot and then the detailed design of the depot and associated works being dealt with through a Reserved Matters Planning Application. It is anticipated however, that the outline element of the planning permission for the depot and associated works will be subject to maximum parameters in terms of built floorspace, car parking and general alignment of highway infrastructure. These parameters and principles will then need to be reflected in the preferred ODP’s detailed design solution through any Reserved Matters application.
1.2 Site Description

As set out above the site is located in the south east of Taffs Well at grid reference ST 1230 8323 and covers an area of approximately 5.4 ha. The location plan of the site is provided in Figure 1 below.

Figure 1: Site Location Plan

The site includes active areas and extends over the road to include a section of the adjacent road, railway line, Taffs Well station and carpark. In terms of habitats, the site is therefore dominated by hardstanding and buildings with occasional amenity trees, grassland and shrub planting as well as bare ground and tree lines associated with the railway.

1.3 Requirement for a Habitats Regulations Assessment

A Habitats Regulations Assessment (HRA) screening is required under the Conservation of Habitats and Species Regulations (2010, as amended), to determine if the works are likely to have a potentially significant effect on a Natura 2000 site. Natura 2000 sites include Sites of Community Importance, Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites. Potential SPAs and candidate or possible SACs are also considered in the same way. Screening assessments are referred to as Stage 1 Habitat Regulations Assessment (HRA) and, for this assessment, guidance in the Design Manual for Roads and Bridges (DMRB) has been followed. Although the DMRB guidelines are for road schemes, this is considered reasonable guidance for this rail scheme. Natura 2000 sites are also referred to as ‘European sites’ and both terminologies are used in this document, whilst the HRA screening process under the DMRB is referred to as an Assessment of Implications on European Sites (AIES).

Stage 1 HRAs are required for plans or project that are not directly connected with the management of the Natura 2000 sites, but involve an activity, such as construction, which could potentially have an adverse impact on sites of recognised international importance (HD 44/09 and IAN 141/11). Screening assessments are undertaken if the footprint of the scheme lies within 2km of such a designated feature, or within 30km of a site designated for bat species.
Cardiff Beechwoods SAC lies approximately 0.13km to the south east of the site at its closest point, whilst the Usk Bat Sites SAC lies approximately 29.8km north east of the site. HD 44/09 states ‘As a general guide, consideration should be given to any European Sites within 2km of the route corridor or project boundary… or at greater distance if an effect pathway exists (for example, in respect to flight paths or feeding areas of birds outside an SPA). Professional judgement should be exercised when considering the effect pathways on mobile species which occupy land outside of the designated site boundary but which are nonetheless, qualifying interests of the site.’ Following this guidance, these European sites have been included within the Assessment of Implications on European Sites (AIES). A location plan of the European sites is provided in Appendix A.

The scheme has been assessed as having no likely significant effects on the designated sites or within the zone of influence of these designated sites.

1.4 Study Area

The current guidance on ecological assessments (Chartered Institute of Ecology and Environmental Management (CIEEM), 2016) recommends that all ecological features that occur within a zone of influence (ZoI) for a proposed development are investigated.

The ZoI includes:
- Areas directly within the land take for the proposed development and access;
- Areas which will be temporarily affected during construction;
- Areas likely to be impacted by hydrological disruption; and
- Areas where there is a risk of pollution and noise disturbance during construction and/or operation.

The ZoI is variable depending on the nature of the construction activities and the ecological receptors affected. For this assessment the following zones have been defined, following guidance set out within the Design Manual for Roads and Bridges (HD44/09):

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<td>Designated sites for bats</td>
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<tr>
<td>Protected species records</td>
<td>2km</td>
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<td>Protected species evidence</td>
<td>Within the site boundary</td>
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1.5 Experience of Authors

<table>
<thead>
<tr>
<th>Name and Role</th>
<th>Qualifications</th>
<th>Experience</th>
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<tr>
<td>Lorraine Woolley Author</td>
<td>MA (Oxon) MRes CIEEM</td>
<td>8 years’ ecological consultancy experience preparing Environmental Statements, ecological assessments and reports to inform HRA and AA.</td>
</tr>
<tr>
<td>Joanne Bates Checker</td>
<td>BSc (Hons) CEnv CIEEM</td>
<td>14 years across a multitude of sectors. Specific SHRA and AIES highway or linear project experience has been obtained whilst seconded to SWTRA, Highway England project schemes and employer’s agent on Welsh Government major road schemes.</td>
</tr>
<tr>
<td>Rebecca Purslow Checker</td>
<td>BSc (Hons) MSc CEnv CIEEM</td>
<td>Over 10 years’ experience as an ecological consultant working on a variety of highway and infrastructure</td>
</tr>
</tbody>
</table>
Name and Role | Qualifications | Experience
--- | --- | ---
Clive Williams | BSc (Hons), MSc, FGS, CGeol | 23 years’ environmental consultancy experience preparing Environmental Statements and HRA reports for various projects.

Source: Mott MacDonald Ltd.

1.6 Limitations

Mott MacDonald Limited has used published data and information gathered from the project team in the production of this screening report. This assessment has been undertaken in accordance with information that is in the public domain.

The baseline information collected in this screening report is the most up-to-date information currently available. It is possible that conditions described in this report may change over time and the baseline information will be reviewed and up-dated as appropriate throughout the HRA and planning process.

The author has used professional judgement to assess the potential impacts and the significance of these on European sites. The precautionary principal has been used where there is reasonable scientific uncertainty.
2 Description of the Scheme

2.1 Description of the Scheme

An indicative masterplan (Drawings 367590-28I-XX-DR-C-0002 and 0003) of the Taffs Well Depot has been prepared which indicates the construction of the following:

- A new rolling stock depot comprising of:
  - Multiple stabling lines;
  - A maintenance workshop with offices above;
  - A rolling stock washing facility;
  - A sand replenishment plant;
  - A delivery track where rolling stock will be delivered on HGVs and lifted onto the depot tracks;
  - A substation; and
  - Staff parking and increased park and ride spaces.

- Associated works will include:
  - Local highways and rail infrastructure improvements;
  - A new footbridge over Taffs Well Station;
  - Extension to the existing Taffs Well Station western platform; and
  - Improvements to the National Cycle Network (Taff Trail).

The key parameters are listed below:

- Whole site area is 5.4 hectares. This includes all land within the red line boundary (Drawing number 367590-28I-XX-DR-C-0004) which includes the associated works at and around Taffs Well Station;
- Developable site area is 3.6 hectares. This is the main depot site between the A470 and Ffordd Bleddyn, as shown on drawing 367590-28I-XX-DR-C-0005;
- Total approximate floor space will be as below:
  - 3770m$^2$ of workshop floor space;
  - 2372m$^2$ of office floor space over two floors;
  - 400m$^2$ and 100m$^2$ of storage buildings floor space; and
  - Combined this comes to a total of approximately 6642m$^2$.
- The tallest building is the maintenance workshop with offices above at 13.5m tall, smaller than the existing 15m tall Forgemasters building; and
- The design of the depot allows for different types and sizes of rolling stock and power options including electric and diesel.

The full development description for the project is as follows:

- Hybrid Planning Application for the construction of the Taffs Well Depot on land at the Garth Works Industrial Estate in Taffs Well;
- Part A: Full planning application for the demolition and site clearance works associated with existing buildings and structures on the Garth Works Industrial Estate; and
● Part B: Outline planning application with all matters reserved for the construction of the Taffs Well Depot including: multiple stabling lines; a maintenance workshop with offices above; a rolling stock washing facility; a sand replenishment plant; a delivery track; a substation; staff parking and increased park and ride spaces; highways and rail infrastructure improvements; modifications to Taffs Well Station and landscaping.
3 Assessment of Implications on European Sites (AIES)

3.1 Stage 1 Assessment

The following Stage 1 Assessment of Implications on Natura 2000 / European Sites (AIES) has been produced to assess the level of Appropriate Assessment necessary as a requirement under the Habitats Regulations 2010 (as amended). The assessment has been based upon assumptions that the mitigation specified within the report will be implemented. Any changes to the described mitigation would require further assessment and consultation with statutory environmental bodies (SEBs) as appropriate.

As set out above, two designated sites fall within the identified study area:

- Cardiff Beechwoods SAC – located approximately 0.13km south east of the site at its closest point; and
- Usk Bat Sites SAC – located approximately 29.8km north east of the site.

These designations are considered below following DMRB guidance.

3.1.1 Cardiff Beechwoods SAC

The AEIS for Cardiff Beechwoods SAC is set out within Table 3 below. The key impact pathway for this designation is considered to be air quality effects.

**Table 3: Cardiff Beechwoods SAC AEIS screening**

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<tr>
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<td>Cardiff Beechwoods SAC</td>
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<tr>
<td>Date:</td>
<td>05/10/2017</td>
</tr>
<tr>
<td>Author:</td>
<td>Lorraine Woolley</td>
</tr>
<tr>
<td>Verified:</td>
<td>Joanne Bates</td>
</tr>
</tbody>
</table>

**Description of Project:**

- **Size and scale (road type and probable traffic volume)**: The site is approximately 4.6ha in area. The project will convert a current industrial estate into a depot for the stabling and maintenance of trains and so will not result in a significant increase in traffic volume.

- **Land-take**: The project does not require any land take from the designated site or any areas directly connected to / adjacent to this designation. The site is both laterally and vertically separated from the SAC.

- **Distance from the European Site or key features of the site**: 1.3km south east of the SAC at its closest point.

- **Resource requirements (from the European Site or from areas in proximity to the site, where of relevance to consideration of impacts)**: It is not anticipated that there will be a requirement for resources from the SAC as a result of the works.

- **Emissions (e.g. polluted surface water runoff – both soluble and insoluble pollutants, atmospheric pollution)**: Air quality effects have been assessed in the Air Quality Assessment (Mott MacDonald, October 2017). The development has the potential to result in increased traffic emissions and generation of dust generated during construction.

- **Excavation requirements (e.g. impacts of local hydroecology)**: Some excavation and ground work may be required, albeit this would be localised to the construction site.

- **Transportation requirements**: The overall aim of the project is to provide a maintenance and stabling area for trains. There will be depot staff and associated vehicles required. However, no significant additional congestion is anticipated.
Project Name: Taffs Well Depot

whilst, as set out above, the change in AADT on adjacent roads is anticipated to be well below 1,000 AADT.

Duration of construction, operation, etc. This is an outline application and so construction timescales are not finalised. It is anticipated that demolition would be undertaken over a 6 month period with construction following over 12 months. The site is anticipated to remain in operation for the foreseeable future.

Description of avoidance and / or mitigation measures:

Nature of proposals No adverse effects are anticipated such that no mitigation measures are required. Air quality is identified as the only impact pathway and best practice measures during construction to reduce dust deposition will be implemented, as set out within the Air Quality Assessment (Mott MacDonald, October 2017).

Location Best practice safeguards will be implemented within the construction site.

Evidence for effectiveness Standard and established methodology will be applied, as set out within the Air Quality Assessment (2017), which include undertaking regular on and off-site inspections and keeping a log to be made available to the local authority.

Mechanism for delivery (legal conditions) The delivery of measures under the CEMP will be a contractual obligation of the Operational Delivery Partners. Mitigation could also be required as part of a planning condition.

Characteristics of European Site:

Name of European site and its EU code Cardiff Beechwoods SAC - UK0030109

Location and distance of the European site from the Scheme 1.3km south east of the scheme at its nearest point (see Appendix A for plan). The SAC also lies south west of the site.

European site size 114.45 ha

Key features of the European site including the primary reasons for selection and any other qualifying interests Annex I habitats that are a primary reason for selection of this site:

- Asperulo-Fagetum beech forests

Cardiff Beech Woods contains one of the largest concentrations of Aspleuro-Fagetum beech forests in Wales and represents the habitat close to the western limit of its past native range in both the UK and Europe.

- Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:

  - Tilio-Acerion forests of slopes, screes and ravines

Vulnerability of the European site – any information available from the standard data forms The most important negative impacts identified on the standard data form are: interspecific floral relations; outdoor sports and leisure activities, recreational activities; and invasive non-native species.

European site conservation objectives The conservation objective for the Asperulo-Fagetum beech forest sets out a vision for it to be in favourable conservation status, where the following conditions are satisfied:

- The existing Asperulo-Fagetum beech forest will be maintained;

- At least 95% of canopy forming trees will be locally native species such as beech, ash and oak with some areas dominated by beech;

- The tree canopy will not be completely closed; approximately 10% of the canopy will include a dynamic shifting pattern of gaps encouraging natural regeneration of tree species of all ages;

- Dead wood, standing and fallen, will be maintained where possible to provide habitat for invertebrates, fungi and other woodland species;

- There are pockets of ground flora across the site, comprising species typical of lime-rich beech wood, including indications or ancient woodland such as wood anemone, ramsons and sanicle;

- There is little evidence of squirrel damage to trees;

- Recreational use of the site will continue to be managed so it does not damage the wildlife interest of the site; and
Project Name: Taffs Well Depot

- All factors affecting the achievement of these conditions are under control.

The conservation objective for the *Tilio-Acerion* forest of slopes, screes and ravines sets out a vision for it to be in favourable conservation status, where the following conditions are satisfied:
- The existing *Tilio-Acerion* forest will be maintained;
- At least 95% of canopy forming trees will be locally native species (sycamore included);
- The tree canopy will not be completely closed; approximately 10% of the canopy will include a dynamic shifting pattern of gaps encouraging natural regeneration of trees of all ages;
- Dead wood, standing and fallen, will be maintained where possible to provide habitat for invertebrates, fungi and other woodland species;
- There are pockets of ground flora across the site, comprising species typical of lime-rich beech wood, including indications of ancient woodland such as wood anemone, ramsons and sanicle;
- There is little evidence of squirrel damage to trees;
- Recreational use of the site will continue to be managed so it does not damage the wildlife interest of the site; and
- All factors affecting the achievement of these conditions are under control.

Assessment Criteria:

There is potential for construction and operational activities to result in air quality effects (dust during construction and increased nitrogen deposition from traffic during the operational scheme). This has been assessed in the Air Quality Assessment (2017) along with thresholds for the assessments. Air quality effects during construction are considered to be relevant to 50m (see Air Quality Assessment) and nitrogen deposition from traffic is considered for roads within 200m (in accordance with DMRB guidelines) of the SAC.

Initial Assessment:

The key characteristics of the site and the details of the European site should be considered in identifying potential impacts. Describe any likely changes to the site arising as a result of:

- **Reduction of habitat area**
  - There will be no reduction of habitat within the SAC as a result of the scheme either in isolation or in combination with other developments identified above. As such, no likely significant effects are anticipated.

- **Disturbance to key species**
  - N/a - the SAC is designated for the habitats supported.

- **Habitat or species fragmentation**
  - No direct land take from the SAC is required and therefore no habitat fragmentation is anticipated. The SAC is not designated for any species.

- **Reduction in species density**
  - N/a – the SAC is designated for the habitats supported, whilst given the separation from the site no reduction in botanical species density is anticipated.

- **Changes in key indicators of conservation value (water quality, etc)**
  - The SAC is not hydrologically connected to features in or adjacent to the site, such that no hydrological pollution is anticipated. In any event, best practice pollution control measures would be implemented through the CEMP.
  - This assessment has concluded that (i) air quality reduction during construction is anticipated to be highly localised, such that no effects at the SAC are anticipated; and (ii) the anticipated change in traffic flows is less than 1,000 AADT¹ on roads adjacent to the site (and within 200m of the SAC) such that no significant increase in nitrogen deposition as a result of the development is anticipated. On this basis, air quality impacts on the European site or its qualifying features are considered to be de minimis.

- **Climate change**
  - The construction and operation of the project will produce some carbon dioxide emissions and, on this basis, contribute to the global production of carbon dioxide emissions from human activities which contributes to de minimis.

---

¹ AADT - Annual average daily traffic, is a measure used primarily in transportation planning and transportation engineering. Traditionally, it is the total volume of vehicle traffic of a highway or road for a year divided by 365 days.
Project Name: Taffs Well Depot

climate change. Good practice measures to reduce carbon dioxide emissions will be employed such as reusing demolition aggregates. The project as a whole is expected to lead to a reduction in carbon dioxide emissions.

Describe any likely impacts on the European site as a whole in terms of:

Interference with key relationships that define the function of the site

Due to the distance of the project from the SAC and with the best practice pollution control measures that will be implemented, it is not anticipated that the scheme will cause an impact that will result in a significant effect either alone or in-combination on the integrity of the function of the SAC or its qualifying features.

In Combination Test:

The aspect of the project requiring assessment for cumulative effects is air quality. As such a review of local plans and projects has been undertaken below.

The Rhondda Cynon Taff County Borough Council (RCT) Local Development Plan (LDP) was subject to an assessment under the Habitats Regulations (January 2010) which looked at strategic growth in the local area and potential effects on Cardiff Beechwoods SAC. In particular, in respect of air quality effects, this report noted the following factors:

(i) policies in the LDP which will assist in mitigating traffic levels;
(ii) information provided by the Welsh Air Quality Forum showing an overall long-term decline in nitrogen oxide concentrations in urban areas throughout Wales; and
(iii) the on-going site level management of the SAC which will manage the quality and composition of habitats on the ground and therefore manage any potential effects of nitrogen deposition.

The HRA report of the RCT LDP concluded that “taking these factors into account it is not likely that RCT’s LDP will have significant effects either alone or in-combination with Cardiff’s LDP on the Cardiff Beech Woods SAC in relation to airborne pollution”.

It is therefore evident that for local development plans, suitable policies have been put in place in order to manage and mitigate for any adverse effects. On the basis of the information available, there are NO LIKELY SIGNIFICANT CUMULATIVE EFFECTS anticipated from this scheme with the Local Development Plan or any development set out within it.

In terms of local projects for which planning permission has been sought, a search of RCT’s planning portal did not identify any new development proposed within the Taffs Well area.

For any additional housing or commercial schemes outside of these development plans in the Taffs Well area, it can be anticipated that, where these would feed traffic into the A470 and the M4, appropriate mitigation WOULD be implemented for these developments. Any such effect would also accrue over a long period through proliferation and therefore, as this effect is hypothetical rather than evidenced, it is considered reasonable to conclude that for this development NO LIKELY SIGNIFICANT CUMULATIVE EFFECTS are anticipated.

A further proposed scheme proposed for the local area is the South Wales Metro works, which involve upgrades to the lines through Taffs Well. This work is anticipated to result in improved air quality through replacement of old diesel stock with new rolling stock and possibly electrification of the line. Further, improved public transport would be expected to decrease use of cars locally and would also contribute to improved air quality. As such, it is anticipated that any in-combination effects with this scheme would be beneficial.

This potential for cumulative effects on the SAC are considered within the Initial Assessment below.

Cumulative effects may accrue from development outside of the LDP areas but this would be expected to be spread over a long period and would be minor. Given the small change as a result of the development, the impact is not considered likely to be significant.

Indicate the significance as a result of the identification of impacts set above in terms of:

Reduction of habitat area
No land take or habitat affected by the scheme either directly or indirectly. Therefore it is considered that NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable.

Disturbance to key species
N/a
Habitat or species fragmentation
No land take or habitat affected by the scheme either directly or indirectly. Therefore it is considered that NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable.

Loss
No land take or habitat affected by the scheme either directly or indirectly. Therefore it is considered that NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable.

Fragmentation
No fragmentation or habitat affected by the scheme either directly or indirectly. Therefore it is considered that NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable.

Disruption
No land take or habitat affected by the scheme either directly or indirectly. Therefore it is considered that NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable.

Change to key elements of the site (e.g. water quality, hydrological regime, etc.)
No hydrological connection and no habitat affected by the scheme either directly or indirectly. Therefore it is considered that NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable.

Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.

N/a

Outcome of screening stage
No significant effect likely

Are the appropriate statutory environmental bodies in agreement with this conclusion
Informal consultation has been undertaken with Natural Resources Wales through the overall South Wales Metro scheme. Through this, Taff’s Well depot was introduced and key issues were discussed. Formal consultation will follow through the planning process.

Source: Mott MacDonald Ltd.

3.1.2 Usk Bat Sites SAC

The AEIS for Usk Bat Sites SAC is set out within Table 4 below.

Table 4: Usk Bat Sites SAC AEIS screening

<table>
<thead>
<tr>
<th>Project Name:</th>
<th>Taffs Well Depot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natura 2000 Site under Consideration:</td>
<td>Usk Bat Sites SAC</td>
</tr>
<tr>
<td>Date:</td>
<td>05/10/2017</td>
</tr>
<tr>
<td>Author:</td>
<td>Lorraine Woolley</td>
</tr>
<tr>
<td>Verified:</td>
<td>Joanne Bates</td>
</tr>
</tbody>
</table>

Description of Project:

Size and scale (road type and probable traffic volume)
The site is approximately 4.6ha in area. The project will convert a current industrial estate into a depot for the stabling and maintenance of trains and so will not result in a significant increase in traffic volume.

Land-take
The project does not require any land take from the designated site or any areas directly connected to / adjacent to this designation. The site is both laterally and vertically separated from the SAC.

Distance from the European Site or key features of the site
29.8km north-east of the site at its closest point.

Resource requirements (from the European Site or from areas in proximity to the site, where of relevance to consideration of impacts)
It is not anticipated that there will be a requirement for resources from the SAC as a result of the works.

Emissions (e.g. polluted surface water runoff – both soluble and insoluble pollutants, atmospheric pollution)
Air quality effects have been assessed in the Air Quality Assessment (Mott MacDonald, October 2017). The development has the potential to result in increased traffic emissions and generation of dust generated during construction.

Excavation requirements (e.g. impacts of local hydroecology)
Some excavation and ground work may be required, albeit this would be localised to the construction site.

Transportation requirements
The overall aim of the project is to provide a maintenance and stabling area for trains. There will be depot staff and associated vehicles required. However, no significant additional congestion is anticipated.
whilst, as set out above, the change in AADT on adjacent roads is anticipated to be well below 1,000 AADT.

This is an outline application and so construction timescales are not finalised. It is anticipated that demolition would be undertaken over a 6 month period with construction following over 12 months. The site is anticipated to remain in operation for the foreseeable future.

**Nature of proposals**

The scheme is a hardstanding depot with a railway line. No loss or fragmentation of boundary habitats (of suitability for bats) is proposed and no works outside of the site boundary are proposed. Sensitive working practices will be proposed during construction, such as directional lighting.

**Location**

Best practice safeguards will be implemented through the CEMP throughout the construction footprint.

**Evidence for effectiveness**

Standard and established methodology will be applied and undertaken in accordance with best practice, including a requirement for air quality monitoring and environmental audits. Mitigation will be measured against the CEMP.

**Mechanism for delivery (legal conditions)**

A CEMP will be a contractual obligation of the Operational Delivery Partners. Mitigation could also be required as part of a planning condition.

**Characteristics of European Site:**

**Name of European site and its EU code**

Usk Bat Sites UK0014784

**Location and distance of the European site from the Scheme**

29.8km north-east from the site at its closest point.

**European site size**

1684.71ha

**Key features of the European site including the primary reasons for selection and any other qualifying interests**

*Annex II species that are a primary reason for selection of this site:*

- Lesser horseshoe bat (*Rhinolophus hipposideros*)

  The Usk Valley area in south-east Wales contains one of the largest maternity roosts for lesser horseshoe bat as well as a number of important hibernacula in caves in the area. The area contains up to 5% of the UK population, though counts in hibernation sites suggest this may be an underestimate.

*Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:*

- European dry heaths
- Degraded raised bogs still capable of natural regeneration
- Blanket bogs
- Calcareous rocky slopes with chasmophytic vegetation
- Caves not open to the public
- *Tilio-Acerion* forests of slopes, scree and ravines

**Vulnerability of the European site – any information available from the standard data forms**

The most important negative impacts identified on the standard data form are: grazing, air pollution / air borne pollutants, other urbanisation, industrial and similar actions, human induced change in hydraulic conditions, invasive non-native species and interspecific floral relations.

**European site conservation objectives**

*Feature 1: Lesser horseshoe bat*

The vision for this feature is for it to be in favourable conservation status, where all of the following conditions are satisfied:

- The population will viable in the long term, acknowledging the population fluctuations of the species.
- Buildings, structures and habitats on the site will be in optimal condition to support the populations.
- Sufficient foraging habitat is available, in which factors such as disturbance, interruption to flight lines, and mortality from predation or vehicle collision, changes in habitat management that would
reduce the available food source are not at levels which could cause any decline in population size or range

- Management of the surrounding habitats is of the appropriate type and sufficiently secure to
- ensure there is likely to be no reduction in population size or range, nor any decline in the
- extent or quality of breeding, foraging or hibernating habitat.
- There will be no loss or decline in quality of linear features (such as hedgerows and tree lines) which the bats use as flight lines - there will be no loss of foraging habitat use by the bats or decline in its quality, such as due to over-intensive woodland management
- All factors affecting the achievement of the above conditions are under control.

Feature 2: Blanket bog
The vision for this feature is for it to be in favourable conservation status, where all of the following conditions are satisfied:

- The extent, quality and species richness of the blanket bog vegetation is maintained and, where possible, degraded bog is restored to good condition so that this habitat occupies its full potential range within the site.
- The bog vegetation is largely a mixture of dwarf shrubs, hare’s-tail cottongrass and mosses, including bog-mosses.
- Extensive areas of purple moor-grass or hare’s-tail cottongrass show signs of recovery towards a more mixed dwarf shrub sward.
- The natural hydrological regime is maintained and there is continued peat formation and thus carbon storage.
- Areas of bare peat are not extensive and most areas show signs of recovery.
- Peat profiles containing important pollen records are maintained.
- All factors affecting the achievement of the above conditions are under control.

Feature 3: Tilio-Acetion forests of slopes, screes and ravines
The vision for this feature is for it to be in favourable conservation status, where all of the following conditions are satisfied:

- There are extensive patches of semi-natural woodland on the cliffs of the Llangatwg escarpment and hillsides in the Clydach gorge.
- The woodland canopy is dominated by locally native species, including lime ash Fraxinus excelsior, Tilia spp., pedunculate oak Quercus robur, hazel Corylus avellana, birch Betula spp., whitebeams Sorbus spp. and, in the Clydach gorge, beech Fagus sylvatica. Rare whitebeams are a significant component of the canopy.
- Saplings of locally native species dominate the tree regeneration and there is evidence of sufficient regeneration to maintain the canopy in the long term.
- There is an accumulation of standing and fallen deadwood as the woodland develops.
- The woodland ground flora is composed of a range of typical native plants including enchanters-nightshade Circaea lutetiana, dog’s-mercury Mercurialis perennis, wood-sorrel Oxalis acetosella, hart’s-tongue Phyllitis scolopendrium and wood sage Teucrium scorodonia.
- The populations of rare whitebeams are stable or increasing.
- Young sycamore Acer pseudoplatanus trees are rare, as are beech Fagus sylvatica in areas away from the Clydach gorge.
- Plants indicating disturbance and nutrient enrichment, such as nettles, cleavers and weeds, are not dominant in the ground flora of the woodland.
- All factors affecting the achievement of the above conditions are under control.
### Project Name: Taffs Well Depot

**Feature 4: Calcareous rocky slopes with chasmophytic vegetation**
The vision for this feature is for it to be in favourable conservation status, where all of the following conditions are satisfied:

- Sufficient vegetation within crevices remains free from disturbance to support typical plants, including mosses, ferns and rare hawkweeds (*Hieracium* spp.) and allow them to sustain their populations into the future.
- Areas accessible to grazing animals should be free from being smothered by ivy or heavily shaded by trees.
- All factors affecting the achievement of the above conditions are under control.

**Feature 5: Caves not open to the public**
The cave system provides a winter hibernation site for large numbers of lesser horseshoe bats and other bat species, including Brandt's, whiskered, Daubenton's, Natterer's, brown long eared and, occasionally, greater horseshoe bats.
- Numbers of roosting bats are stable or increasing in the system as a whole.
- All factors affecting the achievement of the above conditions are under control.

**Feature 6: Degraded raised bogs still capable of natural regeneration**
The vision for this feature is for it to be in favourable conservation status, where all of the following conditions are satisfied:

- The extent, quality and diversity of raised bog vegetation is maintained and, where possible, restored to good condition, with active moss and peat growth across the raised bog surface.
- The vegetation consists of a mixture of dwarf shrubs, hare's-tail cottongrass, deergrass and bog mosses, grading at the edges into acid and alkaline flushes influenced by acidic water draining from the bog and springs rising in the limestone catchment.
- All factors affecting the achievement of the above conditions are under control.

**Feature 7: European dry heaths**
The vision for this feature is for it to be in favourable conservation status, where all of the following conditions are satisfied:

- The extent, quality and diversity of heath vegetation within the constituent sites is maintained and, where possible, degraded heath is restored to good condition.
- The main heathland areas have a varied age structure with a mosaic of young heath, mature heath and degenerate heath.
- All factors affecting the achievement of these conditions are under control.

### Assessment Criteria:

Given the distance the scheme is located from the bat SAC; the project will not impact on the site’s habitats. However, bats are a highly mobile species. Therefore, the SAC was included in the AIES in order to assess potential effects on bat flight lines outside of the SAC.

### Initial Assessment:
They key characteristics of the site and the details of the European site should be considered in identifying potential impacts. Describe any likely changes to the site arising as a result of:

<table>
<thead>
<tr>
<th>Reduction of habitat area</th>
<th>Disturbance to key species</th>
</tr>
</thead>
<tbody>
<tr>
<td>There will be no reduction of habitat within the SAC as a result of the scheme either in isolation or in combination with other developments identified above. As such, no likely significant effects anticipated.</td>
<td>The habitat on site is considered to be of negligible suitability for the designated species of the SAC. Lesser horseshoe bats were not recorded on any of the bat surveys undertaken in 2017 within the</td>
</tr>
</tbody>
</table>
Habitat or species fragmentation

No direct land take from the SAC is required and therefore no habitat fragmentation is anticipated. No vegetation severance is expected within the construction scheme footprint and therefore no species fragmentation is anticipated. In any event, only common species such as common pipistrelle, soprano pipistrelle and noctule were recorded during 2017 surveys.

Reduction in species density

Due to the distance of the SAC from the scheme, the negligible habitat suitability and no qualifying bat species recorded during 2017 surveys, there will be no reduction in species density due to the works.

Changes in key indicators of conservation value (water quality, etc)

The SAC is not hydrologically connected to features in or adjacent to the site, such that no hydrological pollution is anticipated. In any event, best practice pollution control measures would be implemented through the CEMP. This assessment has concluded that (i) air quality reduction during construction is anticipated to be highly localised, such that no effects at the SAC are anticipated; and (ii) the anticipated change in traffic flows is less than 1,000 AADT\(^1\) on roads adjacent to the site (and within 200m of the SAC) such that no significant increase in nitrogen deposition as a result of the development is anticipated. On this basis, air quality impacts on the European site or its qualifying features are considered to be *de minimis*.

Climate change

The construction and operation of the project will produce some carbon dioxide emissions and, on this basis, contribute to the global production of carbon dioxide emissions from human activities which contributes to climate change. Good practice measures to reduce carbon dioxide emissions will be employed such as reusing demolition aggregates. The project as a whole is expected to lead to a reduction in carbon dioxide emissions.

Describe any likely impacts on the European site as a whole in terms of:

*Interference with key relationships that define the function of the site*

Due to the distance of the Scheme from the SAC, there is no impact pathway that could interfere with the key relationships that define the structure of the site.

In Combination Test:

The site lies at the very edge of the 30km zone of influence. No impact pathways to the SAC or potential to affect the designated interest feature of bats have been identified. On this basis, it is considered reasonable to conclude that NO LIKELY SIGNIFICANT EFFECTS in combination with plans or projects are anticipated.

Indicate the significance as a result of the identification of impacts set above in terms of:

*Reduction of habitat area*

No land take or habitat affected by the scheme either directly or indirectly. Therefore it is considered that NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable.

*Disturbance to key species*

No land take or habitat affected by the scheme either directly or indirectly. No impact pathways identified and no disturbance to bats anticipated. Therefore it is considered that NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable.

*Habitat or species fragmentation*

No land take or habitat affected by the scheme either directly or indirectly. No fragmentation of any habitats of value to bats. Therefore it is considered that NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable.

*Loss*

No land take or habitat affected by the scheme either directly or indirectly. Therefore it is considered that NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable.

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\(^1\) AADT - Annual average daily traffic, is a measure used primarily in transportation planning and transportation engineering. Traditionally, it is the total volume of vehicle traffic of a highway or road for a year divided by 365 days.
<table>
<thead>
<tr>
<th>Project Name:</th>
<th>Taffs Well Depot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fragmentation</td>
<td>No land take, fragmentation or habitat affected by the scheme either directly or indirectly. Therefore it is considered that NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable.</td>
</tr>
<tr>
<td>Disruption</td>
<td>No land take or habitat affected by the scheme either directly or indirectly. No designated species recorded during bat surveys in 2017. No fragmentation of any habitats of value to bats. Therefore it is considered that NO LIKELY SIGNIFICANT EFFECT is reasonably foreseeable.</td>
</tr>
<tr>
<td>Change to key elements of the site (e.g. water quality, hydrological regime, etc.)</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

*Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.*

N/a

| Outcome of screening stage | No significant effect likely |

| Are the appropriate statutory environmental bodies in agreement with this conclusion | Informal consultation has been undertaken with NRW through the overall South Wales Metro scheme. Through this, Taff's Well depot was introduced and key issues were discussed. Formal consultation will follow through the planning process. |

Source: Mott MacDonald Ltd
4 Conclusion

The AIES has concluded that no likely significant effects as a result of the proposed scheme are anticipated on either Cardiff Beechwoods SAC or Usk Bat Sites SAC.

This AIES screening demonstrates that the proposed project, either alone or in-combination, is not likely to have a significant effect on the European designated sites or their associated features. The finding of no likely significant effect, known as a ‘relevant effect’ in accordance with Regulation 74 (7) determines that the development will not have a likely significant effect on a designated site.

Transport for Wales therefore will seek confirmation from Natural Resources Wales and Rhondda Cynon Taf County Borough Council that the AIES assessment will not progress beyond the Stage 1 (Screening) process; and that (under Regulation 75 of the Conservation of Habitats and Species Regulations 2010) confirmation is provided that the project will not adversely affect the integrity of any European site.
Appendices

A. Location of European Sites
A. Location of European Sites
D. Phase 1 Habitat Map
E. Phase 1 Habitat Map Target Notes

Table 10: Target Notes for Phase 1 Map

<table>
<thead>
<tr>
<th>Target Note</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Single stand of Japanese Knotweed on the far side of the fence</td>
</tr>
<tr>
<td>2</td>
<td>Large stand of Japanese knotweed (including treated stands) within scrub in the south of the site</td>
</tr>
<tr>
<td>3</td>
<td>Himalayan Balsam growing in ballast</td>
</tr>
<tr>
<td>4</td>
<td>Hollyberry cotoneaster growing on the woodland edge</td>
</tr>
<tr>
<td>5</td>
<td>Group of sycamore trees with low bat potential (group G1)</td>
</tr>
<tr>
<td>6</td>
<td>Tree T3 – willow tree with ivy covering assessed as low bat potential</td>
</tr>
<tr>
<td>7</td>
<td>Group of willow trees with ivy covering assessed to be of low bat potential; within this ground is tree T2 – dead tree with splits and ivy covering within wooded belt assessed to have moderate bat potential</td>
</tr>
<tr>
<td>8</td>
<td>Tree T1 – willow tree with ivy covering assessed as low bat potential</td>
</tr>
</tbody>
</table>

Source: Mott MacDonald
F. Photographs

Figure 3: Woodland adjacent to the depot

Figure 4: Woodland lining the railway tracks

Figure 5: Scattered trees within the depot

Figure 6: Scrub patch adjacent to the footbridge to the station platform
Figure 7: Scrub adjacent to the railway tracks

Figure 8: Hardstanding, fence and tall ruderal

Figure 9: Amenity grassland patches within the depot

Figure 10: Neutral grassland strip adjacent to the railway track
Figure 11: Ephemeral/ short perennial patch adjacent to the tracks

Figure 12: Species poor hedge with trees within the car park

Figure 13: Hardstanding and buildings
## G. Building Assessment for Roosting Bats

### Table 11: Building Assessment for Roosting Bats

<table>
<thead>
<tr>
<th>Building Number</th>
<th>Description</th>
<th>Features of Bat Potential</th>
<th>Bat Potential Assessment</th>
<th>Photograph</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>Single-storey prefabricated garage with a corrugated metal roof. The building’s windows are boarded up with metal and wooden boards. The building contained a roll-up style garage door and wooden framed fire door.</td>
<td>– Small gaps were identified under the wooden boards and between sheets of metal cladding.</td>
<td>Moderate</td>
<td><img src="image" alt="Building B1 Photograph" /></td>
</tr>
<tr>
<td>B2</td>
<td>Single-storey prefabricated garage with a corrugated roof. The building has wooden framed windows and a roll-up garage door.</td>
<td>– Plastic bargeboards at the front of the building contained two small gaps.</td>
<td>Low</td>
<td><img src="image" alt="Building B2 Photograph" /></td>
</tr>
<tr>
<td>B3</td>
<td>Two-storey brick building with a sloped asbestos roof and a breeze block garage extension. The garage is in active use.</td>
<td>– Fascia has gaps underneath; and – One hole within a wall; however, this was covered in cobwebs.</td>
<td>Moderate</td>
<td><img src="image" alt="Building B3 Photograph" /></td>
</tr>
<tr>
<td>Building Number</td>
<td>Description</td>
<td>Features of Bat Potential</td>
<td>Bat Potential Assessment</td>
<td>Photograph</td>
</tr>
<tr>
<td>-----------------</td>
<td>------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
<td>-------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>B4a</td>
<td>Large two-storey building with a pitched roof that is open internally. The building is in active use as a workshop and is in a poor state of repair. Lean-to structures surround buildings B4a and B4b and are composed of concrete with corrugated metal / flat felt roofs. These structures were in a poor state of repair.</td>
<td>– Gaps on the northern side between asbestos sheeting; and – Asbestos sheets have a number of cracks and holes.</td>
<td>Moderate</td>
<td><img src="image1.png" alt="Photograph" /></td>
</tr>
<tr>
<td>B4b</td>
<td>Mostly single skinned with limited roost potential.</td>
<td>Negligible</td>
<td></td>
<td><img src="image2.png" alt="Photograph" /></td>
</tr>
<tr>
<td>B4c</td>
<td>Single-storey breezeblock extension on the east of building B4a and B4b. It is in a moderate state of repair.</td>
<td>– Wooden fascia’s contain small gaps.</td>
<td>Moderate</td>
<td><img src="image3.png" alt="Photograph" /></td>
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<tr>
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<tr>
<td>B5</td>
<td>Single-storey pre-fabricated studio / workshop with a flat felt roof. It is in a good state of repair.</td>
<td>Negligible features.</td>
<td>Negligible</td>
<td></td>
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<tr>
<td>B6</td>
<td>Brick single-storey extension with a pitched asbestos roof to the east of building B4b. Wooden bargeboards are in a poor state of repair.</td>
<td>Access into the building between breeze blocks and wooden bargeboards and over the door.</td>
<td>Moderate</td>
<td></td>
</tr>
<tr>
<td>B7</td>
<td>Two-storey building with a flat roof. It is in active use as an office.</td>
<td>Negligible features.</td>
<td>Negligible</td>
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<tr>
<td>B8a</td>
<td>Building B8a and B8b are partly constructed of brick and partly constructed of corrugated metal. It is open internally and the roof is likely constructed of asbestos.</td>
<td>Negligible features.</td>
<td>Negligible</td>
<td></td>
</tr>
<tr>
<td>B8b</td>
<td>Building B9 is a single-storey extension of B8a. They are constructed of breeze block with corrugated metal roofs. They are both in active use as offices.</td>
<td>Negligible features.</td>
<td>Negligible</td>
<td></td>
</tr>
<tr>
<td>B9</td>
<td>Building B9 is a single-storey extension of B8a. They are constructed of breeze block with corrugated metal roofs. They are both in active use as offices.</td>
<td>Fascia on the north elevation contains gaps.</td>
<td>Low</td>
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<td>B10</td>
<td>Single-storey with air tank and compressor on the flat roof.</td>
<td>– Gaps around the door.</td>
<td>Low</td>
<td><img src="image1.jpg" alt="Photo" /></td>
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<tr>
<td>B11</td>
<td>Single-storey building of brick and breeze block construction with a flat felt roof.</td>
<td>– Gaps in and around the doors.</td>
<td>Low</td>
<td><img src="image2.jpg" alt="Photo" /></td>
</tr>
<tr>
<td>B12</td>
<td>Brick two-storey building with a flat felt roof. It is in active use and has a wooden slatted dormer porch.</td>
<td>– Cracks in masonry and appears to have a gap under the fascia.</td>
<td>Low</td>
<td><img src="image3.jpg" alt="Photo" /></td>
</tr>
<tr>
<td>B13</td>
<td>Single-storey extension of B8b. It is constructed of breeze block with a corrugated asbestos roof.</td>
<td>– Wooden fascia appears to have a gap underneath.</td>
<td>Low</td>
<td><img src="image4.jpg" alt="Photo" /></td>
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<tr>
<td>B14</td>
<td>Two-storey security office. It is likely constructed of breeze block with the south end constructed of brick. It has a hipped roof with a loft void containing lagging. Some slate tiles have been replaced and the roof is in a moderate state of repair. There is an extension to the side of the building with a pitched roof.</td>
<td>– Wooden fascia board is lifted on the southern elevation of the main building; – Hole in the wooden bargeboard and soffit at the apex and on the east side of the building approx. 4m up; – Gap in the bargeboard on the extension; and – Lifted lead flashing.</td>
<td>Moderate</td>
<td><img src="image5.jpg" alt="Photo" /></td>
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| B15             | Two-storey breezeblock building with a flat roof. It is in a poor state of repair. | - Wooden fascia and soffit / bargeboard has a gap underneath on the north elevation;  
- Wooden soffit has a gap;  
- Holes were recorded in the wall around the pipes;  
- Gaps were recorded under the eaves (lacking boxed soffits) on the eastern elevation – potential gaps into a loft void;  
- Exposed stone is present around the door which contains crevices;  
- Gaps are present under the bargeboard on the southern elevation gable end;  
- Gaps are present under lifted tiles on the western and eastern elevation;  
- Gaps into the soffit on the western elevation; and  
- Missing mortar. | Moderate                  | ![Photograph](image_url) |
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<tr>
<td>B15a</td>
<td>Single-storey extension of B15. It has a flat felt roof and is composed of brick with a wooden door. The windows are grated with metal bars.</td>
<td>-- Gaps underneath the felt and the fascia.</td>
<td>Moderate</td>
<td><img src="image" alt="Photograph" /></td>
</tr>
<tr>
<td>B16</td>
<td>Two-storey brick building with a part cavity wall. It has a flat felt roof with a wooden extension on top of the building.</td>
<td>-- Holes in the masonry and around the pipes; and -- Missing mortar in masonry on the west elevation.</td>
<td>Moderate</td>
<td><img src="image" alt="Photograph" /></td>
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</table>
| B17             | Single-storey stone building with a slate pitched roof. It is in a moderate to poor state of repair. | – Cracked stone on northern elevation;  
– Lifted and slipped tiles on both elevations;  
– Some ivy cover on southern elevation;  
– Hole in brick work to internal space; and  
– Gaps in wooden bargeboards. | Moderate | ![Photograph](image) |
| B18             | Prefabricated single-storey building with a sloping roof.                    | – Negligible features.                                                                    | Negligible              | n/a        |
| B19             | Single-storey prefabricated building of brick and breeze block construction. It has a flat corrugated metal roof with a slight slope on an internal wooden frame. It is in active use. | – Wooden fascia has a small gap of 1-2 inches.                                              | Negligible              | n/a        |