
Standard Road WTS
on behalf of Flintshire County Council
Ecological Assessment Report



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1 INTRODUCTION

1.1 Background and Scope

1.1.1 This report has been prepared by Avian Ecology Ltd. on behalf of Axis PED and Flintshire County Council, and provides an assessment of ecological effects in relation to the proposed extension of the existing Waste Transfer Station (WTS) on land located off Globe Way, Buckley, Flintshire CH7 3LY at approximate grid reference: SJ 288 649 (the Site). The Site and associated access route is defined as the red-line boundary. The proposal is to demolish an existing operational WTS and replace it with a larger WTS within the same site.

1.1.2 The objectives of the Assessment are to:

- Provide baseline information on the current habitats and ecological features both within the Site and in the immediately surrounding area;
- Identify the proximity of any designated sites for nature conservation interest and provide an assessment of any potential effects the proposed development may have on these;
- Identify the presence or potential presence of any protected species or habitats and provide an assessment of any potential effects the proposed development may have on these based on available information; and,
- Provide recommendations for further pre-construction checks and / or mitigation measures, if required, and provide an outline of proposed habitat enhancements, if applicable.

1.1.3 The Assessment has been informed through a desk based review of relevant ecological information and an Extended Phase 1 habitat survey.

1.2 Site Overview

1.2.1 The Site is an active operational WTS located opposite the refurbished Buckley Recycling Centre. It comprises an area of land measuring approximately 0.8ha in total, dominated by hardstanding and road, with a strip of grass, scrub and trees forming a vegetated verge along the frontage to Globe Way at the western end of the Site.

1.2.2 Beyond the Site to the south is Spencer Industrial Estate. Deciduous woodland is located on the opposite side to the northern access road into the WTS. In the wider area, the Site is located on the outskirts of Drury and Buckley being located approximately 1.4km to the north of the settlements, mostly surrounded by restored landfill areas and agricultural arable land with deciduous woodland. Etna Country Park lies to the west.

1.3 Legislative Framework, Planning Policy and Guidance

1.3.1 Reference has been made to the following key pieces of legislation, planning policy and guidance listed in **Table 1.1**.

Table 1.1: Key legislation, planning policy and guidance.

European
<ul style="list-style-type: none"> • Council Directive 92/43/EEC of 21st May 1992 on the conservation of natural habitats and of wild fauna and flora (hereafter referred to as the ‘Habitats Directive’); and, • Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds (codified version of Directive 79/409/EEC as amended) (hereafter referred to as the ‘Birds Directive’). • Regulation (EU) No 1143/2014 of the European Parliament and of the Council of 22nd October 2014 on the prevention and management of the introduction and spread of invasive alien species
National
<ul style="list-style-type: none"> • The ‘Conservation of Habitats and Species Regulations 2017 (as amended)’. Note this may also be referred to as the ‘Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Guidance from the Chartered Institute of Ecology and Environmental Management (CIEEM)^[1] is to continue with the 2017 reference at this time. For the purposes of this report these two references are interchangeable and hereafter referred to as the ‘Habitat Regulations’ • The Environment Bill 2020 (currently in passage and therefore not yet adopted); • The Wildlife and Countryside Act 1981 (as amended); • Environment (Wales) Act 2016 • Countryside and Rights of Way Act 2000; • Protection of Badgers Act 1992; • Hedgerow Regulations 1997; • Section 23 Infrastructure Act 2015; • Natural Environment and Rural Communities (NERC) Act (2006); • The National Planning Policy Framework (NPPF 2018); • ‘Birds of Conservation Concern 4’ (Eaton <i>et al.</i>, 2015)¹; • The United Kingdom Biodiversity Action Plan (UK BAP); • TAN5: Nature Conservation and Planning (2009) • The Bat Conservation Trust - <i>Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Ed.)</i>. (Collins <i>et al.</i>, 2016²); and, <p>BS 42020:2013 Biodiversity – Code of Practice for Planning and Development;</p>

^[1] <https://cieem.net/referencing-environmental-eu-legislation-post-brexit/>

¹ Eaton, M., Aebischer, N., Brown, A., Hearn, R., Lock, L., Musgrove, A., Noble, D., Stroud, D. and Gregory, R (2015). Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. *British Birds*, 108, pp708-746.

² Collins, J. (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition*. Bat Conservation Trust, London

Local

- Biodiversity and Ecosystem Resilience Duty Delivery Plan (Section 6 Environment (Wales) Act 2016)

- 1.3.2 The 'UK Post-2010 Biodiversity Framework' succeeds the UK Biodiversity Action Plan (UK BAP) and 'Conserving Biodiversity – the UK Approach'. The lists of priority species and habitats agreed under UK BAP still form the basis of much biodiversity work and are therefore considered within this report in the context of the objectives of the Biodiversity Framework. BAPs identify habitats and species of nature conservation priority on a UK (UK BAP) and Local (LBAP) scale. UK BAPs are now largely superseded but formed the basis for statutory lists of priority species and habitats in Wales listed under Section 7 of the Environment (Wales) Act 2016, and so are also relevant in the context of this legislation.
- 1.3.3 The Welsh Government published the national biodiversity strategy "The Nature Recovery Action Plan for Wales" in 2015 with the ambition to "halt the decline in biodiversity by 2020 and then reverse the decline, for its intrinsic value, and to ensure lasting benefits to society" The Nature Recovery Action Plan for Wales builds on the new legislative framework and sets out how Wales will deliver the commitments of the UN convention on biological diversity, the strategic plan for biodiversity 2011-2020 and the 20 associated Aichi targets which is a short term framework for action, as well as the EU biodiversity strategy to "halt the decline in our biodiversity by 2020 and then reverse that decline".
- 1.3.4 The Nature Recovery Action Plan focusses on 6 objectives for nature recovery in Wales, actions to reverse the decline of biodiversity are set out under each objective

2 METHODOLOGY

2.1 Desktop Study

- 2.1.1 A desktop study was undertaken to identify any known existing features or species of ecological importance within the study area (as defined below).
- 2.1.2 The desk study included a review of relevant policy and guidance and sought to identify any statutory designated sites for nature conservation through a review of the Joint Nature Conservation Committee (JNCC), Natural Resources Wales (NRW) and Multi Agency Geographic Information for the Countryside (MAGIC)³ websites. A 5km search radius was adopted for all statutory designated sites.
- 2.1.3 Reference was made to Ordnance Survey maps of the wider area and online aerial images (www.google.co.uk/maps) in order to determine any features of nature conservation interest in the wider area.

2.2 Field Survey

Extended Phase 1 Habitat Survey

- 2.2.1 An updated Extended Phase 1 habitat survey was undertaken by Z Hinchcliffe MRes, a suitably qualified ecologist, on the 28th November 2019.
- 2.2.2 During the survey, weather conditions were overcast but dry. There had, however, been persistent rain for the previous five days, so ground conditions were wet.

³ <http://www.magic.gov.uk> (Accessed 02/12/2019) and www.jncc.defra.gov.uk.

- 2.2.3 The survey followed UK industry standard Joint Nature Conservation Committee (JNCC) Phase 1 Habitat Methodology (JNCC, 2010) and with reference to the Chartered Institute of Ecology and Environmental Management (CIEEM), Technical Guidance Series *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017).
- 2.2.4 Habitats within the survey area were mapped and described. The survey was extended to include the additional recording of specific features indicating the presence, or likely presence, of protected species, invasive species and other species of conservation significance.
- 2.2.5 On-site and adjacent trees as well as buildings were assessed for their potential to support roosting bats by way of preliminary roost assessment (PRA). Suitability for roosting bats was classified as follows (from Bat Conservation Trust Guidance, Collins *et al.*, 2016, Table 4.1):
- Negligible: Negligible habitat features on site likely to be used by roosting bats.
 - Low: A structure with one or more potential roost sites that could be used by individual bats opportunistically. Structures do not provide enough space, shelter, protection, appropriate conditions and/or suitability surrounding habitat to be used on a regular basis or by larger numbers of bats. A tree of sufficient size and age to contain potential roost features but with none seen from the ground or with only very limited potential.
 - Moderate: 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.
 - High: 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 potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Limitations of Survey

- 2.2.6 An Extended Phase 1 habitat survey does not constitute a detailed botanical survey or faunal species list or provide a full protected species survey but, enables competent ecologists to ascertain an understanding of the ecology of the Site in order to:
- Broadly identify the nature conservation value of the Site and assess the significance of any potential impacts on habitat/species recorded; and/or,
 - Confirm the need and extent of any additional specific ecological surveys that are required to identify the nature conservation value of the Site (if any).
- 2.2.7 The survey visit was undertaken in November and therefore outside the optimal period for botanical surveys (approximately April to September), however as there was minimal vegetated habitat within the Site this not considered a limiting factor pertinent to the development. There were no significant constraints encountered to impact the objectives of this assessment.

3 BASELINE

3.1 Designated Sites for Nature Conservation

Statutory Designated Sites

- 3.1.1 A review of MAGIC and NRW websites confirmed that the Site is not located within any statutory designated site for nature conservation. However two designated sites are located immediately

adjacent to the Site, details are provided in **Table 3.1**, below. Four statutory designated sites of international significance are located within 5km. Designated sites are shown on **Figure 1**.

Table 3.1: Statutory designated sites within 5km (SAC: Special Area of Conservation, SSSI: Site of Special Scientific Interest, SPA: Special Protection Area, and Ramsar.)

Statutory designated site	Distance and direction	Details
Deeside and Buckley Newt Sites SAC	<40m north and west	Site designated for one of the largest populations of great crested newts <i>Triturus cristatus</i> in Great Britain. Also listed as an Annex 1 habitat of sessile oak <i>Quercus petraea</i> woodland with <i>Ilex</i> and <i>Blechnum</i>
Buckley Claypits and Commons SSSI	<40m north	Site designated for one of the largest populations of great crested newts <i>Triturus cristatus</i> in Great Britain
River Dee and Bala Lake SAC	4.7km north east	Watercourse designated for populations of Atlantic salmon <i>Salmo salar</i> , sea lamprey <i>Petromyzon marinus</i> , brook lamprey <i>Lampetra planeri</i> , river lamprey <i>L. fluviatilis</i> , bullhead <i>Cottus gobio</i> and otter <i>Lutra lutra</i> .
Dee Estuary SAC	4.9km north north east	Mudflats and Atlantic salt meadows within the wider estuary with qualifying features including populations of sea lamprey, river lamprey and petalwort <i>Petalophyllum ralfsii</i> .
Dee Estuary SPA	4.9km north north east	Qualifying for wader assemblage, specifically wintering and passage populations of: <ul style="list-style-type: none"> • shelduck <i>Tadorna tadorna</i> (7,725 individuals) • teal <i>Anas crecca</i> (5,251 individuals) • pintail <i>Anas acuta</i> (5,407 individuals) • oystercatcher <i>Haematopus ostralegus</i> (22,677 individuals) • grey plover <i>Pluvialis islandica</i> (1,643 individuals) • knot <i>Calidris canutus</i> (12,394 individuals) • dunlin <i>Calidris alpina</i> (27,769 individuals) • black-tailed godwit <i>Limosa limosa islandica</i> (1,747 individuals) • curlew <i>Numenius arquata</i> (3,899 individuals) • redshank <i>Tringa totanus</i> (5,293 individuals (8,795 individuals on passage))
Dee Estuary Ramsar	4.9km north north east	More than 1% of wintering bird populations of: redshank, Shelduck, teal, pintail, oystercatcher, grey plover, knot, dunlin, black-tailed godwit, curlew and bar-tailed godwit <i>Limosa lapponica</i> .

3.2 Habitats and Flora

- 3.2.1 This section should be read in conjunction with the Phase 1 Habitat Plan presented as **Figure 2**, and photographs presented in **Appendix 1**.
- 3.2.2 The Site is located within an industrial estate and is mostly comprised of hardstanding and bare ground. The Site includes a recycling yard and a single storey warehouse with corrugated metal walls and a pitch roof covered in corrugated metal sheeting.
- 3.2.3 At the western boundary of the Site is a narrow strip of scrub with trees which forms a verge next to Globe Way, containing pedunculate oak *Quercus robur*, silver birch *Betula pendula* and goat willow *Salix caprea*. In addition, the verge includes gorse *Ulex sp* and dogwood (shrub) *Cornus sp*. There was an understorey of bramble *Rubus fruticosus Agg.*, common nettle *Urtica dioica*, hedge bindweed *Calystegia sepium*, creeping thistle *Cirsium arvense* and cock's-foot *Dactylis glomerata*.
- 3.2.4 To the north of the main warehouse building was a strip of improved grassland dominated by perennial rye grass *Lolium perenne*, Yorkshire fog *Holcus lanatus* and cock's-foot. The only other vegetation within the Site is a small section of overgrown tall ruderals along the southern boundary of the Site including broad-leaved dock *Rumex obtusifolius* and common nettle.
- 3.2.5 The northern and western boundaries to the Site lead onto tarmac roads with deciduous woodland to the north and further industrial buildings to the west. The southern boundary is comprised of a fence leading onto industrial works.
- 3.2.6 The eastern side of the Site includes mostly bare ground and a small single storey site-office leading onto a landfill area and solar park to the east of the Site boundary.
- 3.2.7 Overall, the industrial dominated landscape which comprises the majority of the Site is considered to offer very low ecological interest and diversity. No habitats classified as of principal importance under Section 42 of the NERC Act 2006 are present within the Site. Habitats of higher ecological/biodiversity value likely to support protected and notable species are present on land adjacent to the Site

Invasive species

- 3.2.8 No invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were observed within the Site boundary.

3.3 Protected and Notable Species

Birds

- 3.3.1 The majority of the Site provides poor quality / unsuitable habitat for bird species, particularly given the ongoing operational activities that take place. The vegetated bank frontage at Globe Way provides some (albeit limited) nesting and foraging habitat, which may support small numbers breeding birds typical of the habitat.
- 3.3.2 There was no suitable habitat within the Site to support breeding or foraging Schedule 1 bird species, including barn owl *Tyto alba*, with no barn buildings or mature trees with notable rot holes. Suitable habitat does occur within immediately adjacent land, including along the neighbouring woodlands.

Bats

- 3.3.3 Several trees are present within the strip of vegetation/woodland adjacent to Globe Way, however the majority of these showed no obvious bat roost features. Three trees were present at the Globe Way frontage in the south-west corner of the Site as shown on Figure 2 which were considered to show potential roost features (PRFs) for bats as detailed in **Table 3.3** below.
- 3.3.4 Structures within the Site provided negligible bat roost potential and are not considered suitable for bats. The large warehouse is an open, single skinned structure with corrugated metal roof, and the Site and nearby road is lit. The Site itself offers very low potential for commuting bats, and the industrial and hardstanding dominated areas provide minimal prey resources for foraging. The vegetated area fronting Globe Way offers some foraging opportunities but is not considered to be important as a commuting route given the higher value habitats including woodland to the west, east and north. The proximity of these habitats means that bats may occasionally fly or forage around the Site in low numbers but would not rely on it in any way to maintain the local population.

Table 3.3: Target notes for mature trees showing potential roost features (PRFs).

Target Notes	Description
TN1	Pedunculate oak <i>Quercus robur</i> – approximately 10m tall with ivy <i>Hedera helix</i> covering with several broken branches and cracked bark. Low bat roost potential
TN2	Pedunculate oak – approximately 8m tall with ivy covering with several broken branches and cracked bark. Low bat roost potential.
TN3	Pedunculate oak - approximately 10m tall with ivy covering with several broken branches and cracked bark. A small rot hole present in 3m up on the south west corner of the tree. Low bat roost potential.

Badger

- 3.3.5 No badger setts or signs of badger were identified within the Site during the Extended Phase 1 habitat survey. The surrounding rural environment adjacent to the Site offers suitable habitats for the species and badgers may be present in the wider area.

Water vole / otter

- 3.3.6 There were no waterways or suitable habitats for otter or water vole within or immediately adjacent to the Site.
- 3.3.7 Nearby ponds may potentially offer limited foraging resources for otters, however, it was not possible to assess these during the Extended Phase 1 survey due to access restrictions.

Amphibians and Reptiles

- 3.3.8 The Site is located within 50m of the boundary of the Deeside and Buckley Newt Sites SAC/ Buckley Claypits and Commons SSSI designated for the large populations of great crested newt *Triturus cristatus*. It is therefore within the terrestrial range of the local great crested newt population. There are no ponds or waterbodies within the Site and the Site is not considered likely to support breeding great crested newts, however several ponds are located within 250m of the Site boundary, with the closest being approximately 50m north.
- 3.3.9 The vegetated verge at Globe Way provides some suitable terrestrial habitat for great crested newts and other amphibians. The rest of the Site is dominated by hardstanding and bare ground along all Site boundaries which is considered unsuitable for amphibians.
- 3.3.10 A permanent amphibian exclusion fence is present around the Site perimeter fence which serves to exclude animals (but does not encompass the vegetated verge on Globe Way).

Other Notable Species

- 3.3.11 No other protected or notable species were encountered during the Extended Phase 1 habitat survey or are likely to be present within the Site.

Invasive Non-native Species

- 3.3.12 No invasive non-native species were found on site during the Extended Phase 1 habitat survey.

4 DISCUSSION

4.1 Designated Sites and Habitats

- 4.1.1 The Site does not form part of any statutory site designated for nature conservation, but lies adjacent to Deeside and Buckley Newt Site SAC, and Buckley Claypits and Commons SSSI, both designated for their nationally and internationally important great crested newt population. The designated sites will not experience any direct effects, and indirect effects from construction activities can be suitably avoided through standard good practice pollution prevention and runoff control measures. As a result there will be no likely significant effects on the SAC. Specific measures in relation to great crested newts are discussed further below.
- 4.1.2 The proposed development Site occupies developed operational land (mainly hardstanding) and indirect effects from construction runoff can be suitably avoided through standard good practice pollution prevention and runoff control measures.
- 4.1.3 Habitats which will be directly affected by construction works are restricted to the boundary scrub/tree verge and small areas of ruderal vegetation.
- 4.1.4 Standard pollution protection measures and site construction good practice (including dust and runoff control measures) would protect adjacent habitats and watercourses and ecologically valuable habitats and sensitive downstream receptors.
- 4.1.5 Landscape proposals will include native species hedgerow and tree planting with species selected to complement nearby woodland and strengthen buffer areas around the Site.
- 4.1.6 Opportunities will be sought to provide net biodiversity gain; in line with NPPF (2018) and BS 42020 – *A Code of Practice for Biodiversity in Planning and Development* (British Standard Institution 2013). Landscape planting will use native species of UK provenance.

4.2 Protected and Notable Species

Birds

- 4.2.1 The hardstanding dominated habitat within the red line boundary is unlikely to support any breeding birds during the breeding bird season (generally 1st March-31st August). Whilst some level of temporary displacement of birds could occur during the construction phase this is considered to have no discernible effects on local populations given the poor suitability of the Site, and the wide availability of better quality habitat in the local area.
- 4.2.2 The scrub/tree verge at the western side of the Site provides some suitable breeding habitat for common breeding bird species e.g. dunnock *Prunella modularis*, song thrush *Turdus philomelos* and blackbird *Turdus merula*, all typical of similar habitats within the region.
- 4.2.3 No species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) are considered likely to nest within the Site due to a lack of suitable habitat.
- 4.2.4 The proposed development is likely to affect the vegetated verge and therefore potentially breeding birds during the nesting season. To ensure compliance with the provisions of the Wildlife and Countryside Act 1981 (as amended), it is recommended that any vegetation removal, if required takes place outside of the bird breeding season. If vegetation works are necessary during this period suitable nesting habitat should be inspected by a suitably experienced ecologist prior to works commencing. Only when the ecologist is satisfied that no offence will occur under the legislation will works be permitted to proceed.
- 4.2.5 The inclusion of bird nest boxes on suitable trees will enhance opportunities for breeding birds around the Site.

Bats

- 4.2.6 Habitat loss within the Site in general will be minimal, involving mostly hardstanding and bare ground and disturbance would be largely restricted to temporary disturbance during construction.
- 4.2.1 Higher value habitats within the Site include the woodland along the western boundary. Two pedunculate oak trees were identified as having low bat roost potential at the south west corner of the woodland strip. If these require removal, soft fell techniques will be adopted as a precautionary measure. A further oak was considered to have low-moderate roost potential (TN3). If this is to be removed, it will first require either a tree climbing (aerial) roost inspection, and one or two dusk/dawn emergence/re-entry surveys to confirm the presence/likely absence of a bat roost. If a roost is confirmed, no works likely to affect the roost will be permitted to proceed until a European protected Species mitigation licence has been applied for and obtained from NRW and suitable mitigation set in place.
- 4.2.2 Trees located adjacent to the Site will be retained and protected following British Standards BS5837:2012 *Trees in relation to design, demolition and construction*.
- 4.2.3 The existing operational building on Site, of corrugated metal construction lacked voids or suitable features to support roosting bats and was considered to have negligible roost potential.
- 4.2.4 The boundaries of the Site, namely woodland edge, may be used by bats for commuting and foraging. Any lighting required during construction and/or operation of the proposed development will be directed away from woodland habitats. This can be achieved in a number of ways, including the use of low level lighting and use of hoods and careful selection of lighting (further information is provided

in BCT guidance (2018) *Bats and Lighting in the UK: Bats and the Built Environment Series*⁴). As long as lighting is designed in a sensitive manner, no discernible effects are anticipated on foraging bats.

- 4.2.5 The northern and western boundaries within the Site include tarmac roads with relative heavy traffic during daylight hours and lit by permanent street lighting at night so current activity within the Site is likely to be unfavourable to large populations of bat species.
- 4.2.6 The inclusion of bat boxes as part of the development would enhance roost opportunities at the Site, complementing the adjacent woodland and contribute to net biodiversity gain. It is proposed that a number of enclosed bat boxes will be erected on surrounding mature trees. Any entrances to bat boxes should remain unlit. See **Appendix 2** for details.

Badger

- 4.2.7 No setts or any other signs of badger activity were identified within or immediately adjacent to the Site. The majority of the proposed development area is hardstanding and unsuitable for badgers generally, in particular for sett construction. Due to the lack of evidence of badger presence, badger is not considered likely to be present within the Site. However, the deciduous woodlands to the north and west of the Site are likely to provide suitable breeding and foraging habitat for badger. These adjacent habitats will not be affected by the proposed development and will be safeguarded during the construction phase by suitable boundary fences and good practice construction working methods. Woodland at the eastern end of the site is separated by fencing from the proposed development and will similarly be protected and will not be directly impacted by works.
- 4.2.8 As a precaution, safeguards will be put in place to protect any badger that be occasionally present in habitat around the development area. Any ground excavation made during the construction phase should be covered overnight or fitted with a means of escape should a badger become trapped. All materials should be stored in secured compounds or raised off the ground. These safeguards will protect other animals who may potentially enter the working area such as western hedgehog *Erinaceus europaeus*.

Amphibians & Reptiles

- 4.2.9 The Site contains no ponds or watercourses suitable for great crested newts and the majority of the area is hardstanding with negligible value for either amphibians or reptiles. There are small areas of potentially suitable terrestrial habitat within the scrub/tree verge strip at the eastern edge of the Site which provides some potential foraging habitat and places of shelter or refuge, but this small area is surrounded by roads and hardstanding, limiting its connectivity to the more suitable habitats within the SAC/SSSI. There are a number of ponds in the locality many of which form part of the SAC; all of these are also separated by roads and intervening more suitable terrestrial habitat.
- 4.2.10 Any amphibians or reptiles locally present and associated with the neighbouring ponds and other habitats would be expected to remain within and favour the nearby higher value habitat in preference to that within the Site. However, the proposed construction works will result in the loss of the vegetated earth bank along Globe Way and will also affect a narrow strip of amenity grassland adjacent to the access road along the northern boundary. These areas could potentially shelter small numbers of GCN.
- 4.2.11 An assessment of potential impacts of the development on GCN and the provision of an outline mitigation strategy has been undertaken with reference to Natural Resources Wales' *Template Method Statement to be used within a Great Crested Newt Development Licence Application*.

⁴ Bat Conservation Trust. (2018). *Bats and Artificial Lighting in the UK: Bats and the Built Environment Series Guidance Note 08/18*

- 4.2.12 This extension of the existing WTS incorporates the vegetated verge on Globe Way. Whilst the verge represents potential GCN habitat, it is small (c0.1ha) poorly located next to two access roads and within the Spencer Industrial Estate. There is an existing permanent exclusion fence around the majority of the Site and most of the Site is hardstanding and provides poor or inaccessible GCN habitat.
- 4.2.13 The proposed extension of the WTS and installation of new fencing will involve permanent loss of the vegetated Globe Way verge, an area of approximately 15m by 66m. Although small in area, and bounded by roads and hardstanding, it also represents potential but poorly located GCN terrestrial habitat. Vegetation clearance will therefore be undertaken separately to the current WTS extension application, under a European protected species development licence from Natural Resources Wales which is held by Flintshire County Council (referenced as *Standard Landfill and Materials Recycling Facility (MRF)*). This is a five year licence for Standard landfill and represents a renewal of Licence Ref: **60878a:OTH:EPS:2015** covering maintenance works together with associated projects.
- 4.2.14 Under this licence, the aim is to relocate the GCN permanent fence along the Globe Way to reduce the attractiveness of the site to amphibians and to reduce future amphibian movements across the two roads to prevent capture/ killing. This will also enable the trapping to be undertaken in a suitable time frame ahead of the proposed re-development and ensure that the boundaries permanently exclude GCN/amphibians. Provision is included in the licence for suitable mitigation, including a continuation of the maintenance and management of mitigation ponds associated with the landfill site which have to date achieved success in the restoration of local GCN populations. Habitat management and enhancement of existing ponds (both lagoon ponds to the north and landfill ponds to the north west). This will involve an annual flail to manage vegetation around ponds and associated aquatic vegetation management annually but on rotation.
- 4.2.15 Additional site enhancements will be through the installation of permanent GCN exclusion fencing on the WTS weighbridge depot boundary fence and recessed kerbs adjacent to relevant gully pots on junction into Spencer Industrial Estate. Recessed kerbs are already in place on Globe Way.
- 4.2.16 Installation of permanent amphibian exclusion fencing around the Site and works within hardstanding areas already largely safeguarded by exclusion fencing will result in temporary disturbance only in areas highly unlikely to support GCN. As a precaution, works in these areas will be undertaken following appropriate Reasonable Avoidance Measures (RAMs).
- 4.2.17 Separately, a Habitats Regulations Assessment may be required from the competent Authority to demonstrate that the proposed development will not have any likely significant effect on the Deeside and Buckley Newts SAC, or any significant adverse effects on the integrity of the SAC with mitigation measures in place. Based on the information provided in this Report, and with reference to the licensed approach to potentially disturbing activities, likely significant effects on the SAC and its qualifying interest species can reasonably be screened out in relation to the proposed development.
- 4.2.18 An outline Great Crested Newt Mitigation Strategy is provided at Appendix 3 and can be delivered through a suitably worded Condition.
- 4.2.19 Reasonable Avoidance measures as part of the great crested newt licence will also serve to protect any reptiles potentially present. Standard good practice pollution prevention and control measures will be set in place during construction and operation of the proposed development, ensuring that off-site terrestrial habitat and ponds and the species they support can be suitably protected from the risk of surface water runoff causing pollution.

Otter and Water Vole

- 4.2.20 No waterbodies or wetland habitat occurs within the Site suitable for water voles or otters. The nearest flowing watercourse lies 100m north of the Site and will be suitable protected from indirect effects through standard good practice pollution prevention and control measures set in place during construction and operation of the proposed development.
- 4.2.21 The presence of water voles or otters is not considered likely due to the hardstanding-dominated habitat within the Site which is unsuitable for these species.

Other Species

- 4.2.22 No other species are considered pertinent in relation to the proposed development.
- 4.2.23 No invasive non-native species were recorded within the Site; therefore no-further actions are required. As a precautionary measure for bio-security, a pre-construction check for invasive species is recommended. If found, measures can be employed to eradicate/control species such as Japanese knotweed and prevent the accidental introduction or spread of invasive species on to the Site or nearby land during construction.

5 SUMMARY - ECOLOGY MATRIX

5.1.1 **Table 5.1** summarises the ecological constraints and opportunities associated with the development, and makes recommendations for pre-construction survey work and / or mitigation measures as required.

Table 5.1: Ecological Constraints and Opportunities

Feature		Details
Designated sites for Nature Conservation	Constraints & Opportunities	a. Site is not located within any statutory designated site for nature conservation; however, a SAC/SSSI lies nearby. There will be no direct impact on designated sites, and the potential for indirect effects from site runoff, disturbance or emissions can be readily avoided through the implementation of standard good practice construction measures and a European Protected Specie Mitigation licence issued by NRW (see Amphibians and Reptiles below).
	Legislative Compliance HAREgs WCA	b. The Competent Authority is likely to require a Habitats Regulations Assessment to demonstrate no likely significant effects on the SAC or its qualifying interest species or no significant adverse effects on the integrity of the SAC with mitigation in place.
Habitats & Flora	Constraints & Opportunities	c. The development footprint comprises mostly hardstanding which is of low value to wildlife. The narrow vegetated bank fronting Globe Way will be lost to the development. d. Landscape planting will mitigate for this habitat loss. e. Habitat outside the Site boundary will be protected during works in-line with BS 5837:2012 <i>Trees in relation to design, demolition and construction</i> . f. Pollution prevention measures will be implemented to prevent pollution and run-off occurring during the construction
	Legislative Compliance EWA, WCA	g. N/A
Birds	Constraints & Opportunities	h. The Site offers minimal opportunities for breeding birds, with the exception of the woodland strip at Globe Way. i. Mitigation will be provided through the provision of three bird nest boxes on suitable trees within the nearby woodland under FCC control.
	Legislative Compliance – EWA, WCA	j. Removal of trees and vegetation, if any, should be undertaken outside of the bird breeding season (1 March to 31 August inclusive). If vegetation works are necessary during the breeding season, suitable nesting habitat should be searched by a suitably experienced ecologist prior to works commencing. Only when the ecologist is satisfied that no offence will occur under the legislation should works proceed.
Bats	Constraints & Opportunities	k. Foraging / commuting: The Site provides negligible foraging or commuting opportunities and nearby higher value woodland and watercourses are unaffected by the proposed development. Construction works will largely be in daylight hours. Any evening working will be designed to ensure that temporary lighting avoids spill into adjacent woodland. Similarly the lighting for the operational site will be designed to minimise light spill. l. Roosting: two trees have low bat roost potential and should be removed adopting soft fell techniques. A further oak tree has low-moderate roost potential and if affected will require further survey (climbing or emergence/re-entry) before felling may proceed. If a roost is confirmed, tree works will only be undertaken on receipt of a European protected Species mitigation licence from MNRW and suitable mitigation set in place. m. Enhancement will be provided through the provision of three bat boxes on suitable trees within the nearby woodland under FCC control.
Badger	Constraints & Opportunities	n. No badger setts or other signs of badger activity were recorded. The Site is unsuitable for badgers

Feature		Details
	Legislative Compliance – Badger Act	o. N/A
Amphibians and Reptiles	Constraints & Opportunities	<p>p. The land proposed for development is dominated by hardstanding which is considered unlikely to support local populations of amphibians and reptiles.</p> <p>q. The narrow vegetated strip fronting Globe Way, although isolated, provides some suitable terrestrial habitat for amphibians and reptiles (refuge and foraging).</p> <p>r. An outline Great Crested Newt Mitigation Strategy will be agreed as part of the proposed development (provided as Appendix 3) and the vegetated verge will be fenced, trapped and cleared of any GCN before works commence under a separate EPSM licence from NRW relating to the ongoing management of Standard Landfill and the existing WTS.</p>
	Legislative Compliance – EWA, WCA	s. The vegetated verge will be trapped and cleared under licence prior to any consented works commencing. Permanent exclusion fencing will also be in place around the Site to prevent GCN entering the operational area. Works within low risk parts of the Site (hardstanding etc.) will be undertaking following RAMs.
Other Species	Constraints & Opportunities	<p>t. None applicable; however any landscaping will provide benefits for a range of species.</p> <p>u. Pre-construction checks for colonisation by invasive species within construction areas. If found, biosecurity measures will be employed to eradicate/control species such as Japanese knotweed and prevent the accidental introduction or spread of invasive species on to the Site or nearby land during construction.</p>

Legislative Compliance Key

HaREgs - The Conservation of Habitats and Species Regulations 2017, (the ‘Habitat Regulations’)

WCA - Wildlife & Countryside Act 1981 (as amended)

EWA – Species or habitat in Wales listed under Section 7 of the Environment (Wales) Act 2016.

Badger - Protection of Badgers Act 1992

FIGURES

Figure 1: Statutory Designated Sites

Figure 2: Phase 1 Habitat Survey

APPENDICES

Appendix 1: Photographic Record

Appendix 2: Bat and Bird Box specifications

Appendix 3: Outline Great Crested Newt Mitigation Strategy

FIGURE 1 – Statutory Designated Sites within 2km

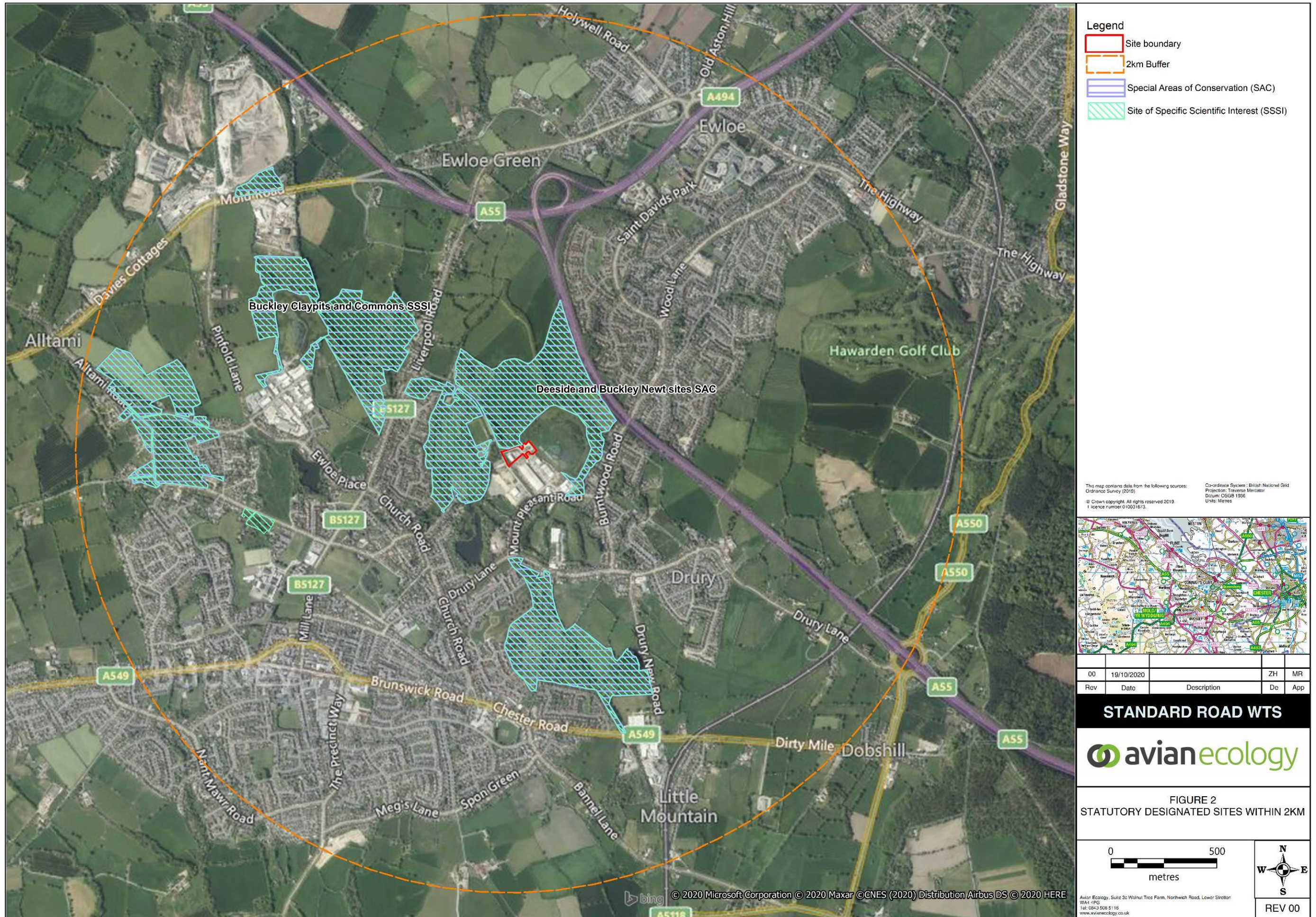
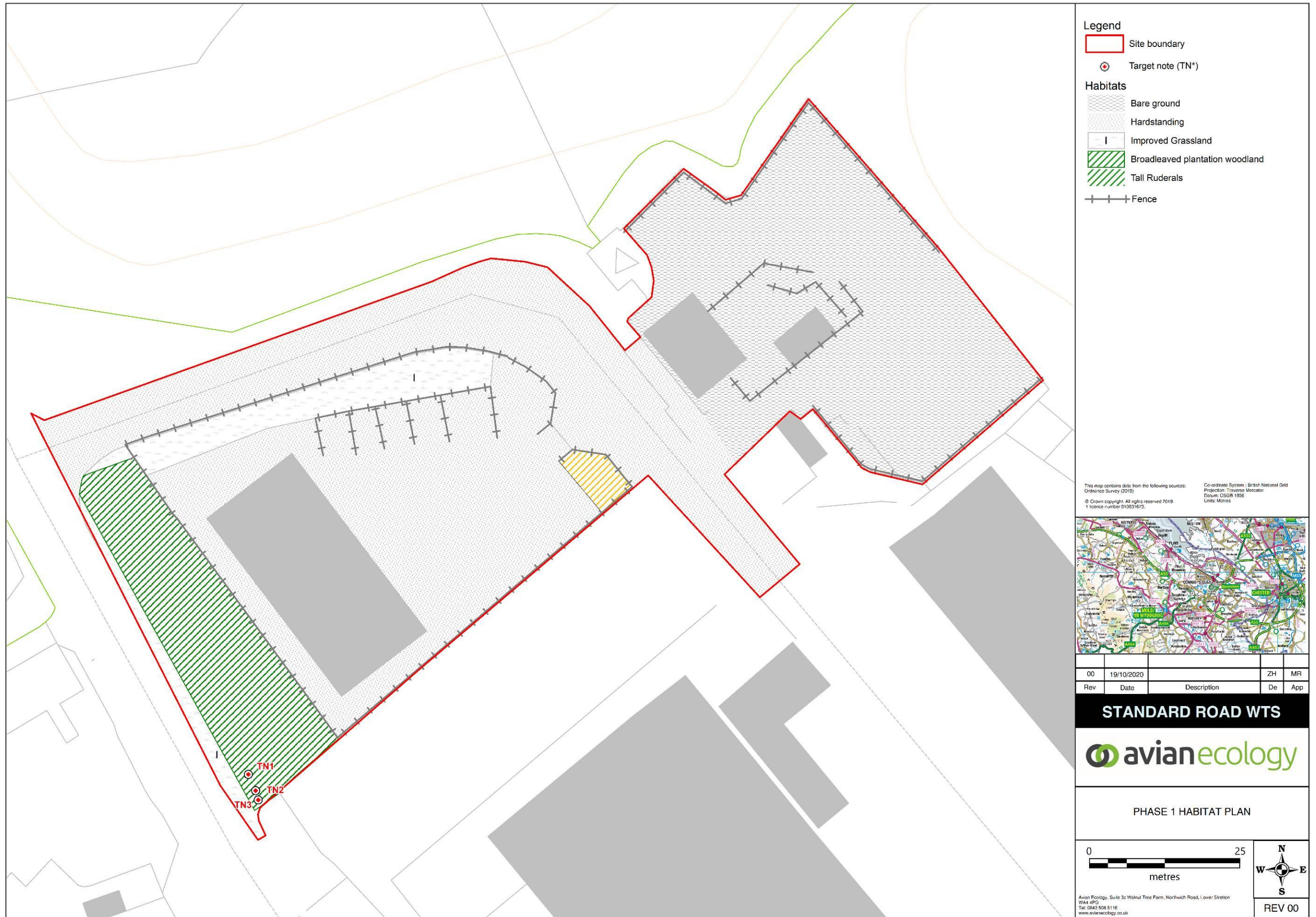


FIGURE 2 – Phase 1 Habitat Plan



APPENDIX 1: Photographs



Photograph 1 – The main building within the Site



Photograph 2 – The eastern section of the leading onto the Landfill site, dominated by bare ground.



Photograph 3 – The vegetated verge along the western boundary viewed from the road



Photograph 4 – The understory of the vegetated verge at the western boundary viewed from inside the Site





Photograph 5 – TN1-3 – mature pedunculate oaks *Quercus robur* in the south west corner of the Site.





Photograph 6 – The woodland to the north of the Site within the adjacent SAC, separated by hardstanding and road

Appendix 2 – Bat and Bird Box Specifications

Suitable Bat Roost Boxes		
2F Schwegler Bat Box		<p>The 2F bat box is designed as a summer roosting space for bats and has a simple entrance hole at the front. The box is manufactured from long-lasting woodcrete, which is a blend of wood, concrete and clay which will not rot, leak, crack or warp, and will last for at least 20 - 25 years, making it suitable for long-term projects.</p> <p>This provides ideal quarters for bats that inhabit crevices, such as Pipistrelle <i>Pipistrellus</i> sp. and <i>Myotis</i> species.</p>
1FF Schwegler Bat Box		<p>The 1FF bat box is designed as a summer roosting box. The box is made from the same woodcrete material and will also last 20 – 25 years. The open bottom allows droppings to fall out reducing the requirement for maintenance.</p> <p>This provides ideal quarters for bats that inhabit crevices, such as Pipistrelle <i>Pipistrellus</i> sp. and noctule bats <i>Nyctalus noctula</i>.</p>
Siting	The bat boxes can be sited in trees or mounted to poles and is best positioned at a height of between 3 to 6 metres. Bat boxes should ideally be sited in open sunny positions facing different directions to provide a variety of micro-habitats.	
Timing	Bat boxes can be installed at any time of year following the cessation of construction works.	
Other Notes	Note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.	
References	<p>http://www.nhbs.com/title/158629/2f-schwegler-bat-box-general-purpose</p> <p>http://www.nhbs.com/title/158636/1ff-schwegler-bat-box-with-built-in-wooden-rear-panel</p>	

Appendix 2 – Bat and Bird Box Specifications

Suitable Bird Boxes		
<p>1B Schwegler Nest Box</p>		<p>The 1B nesting box is designed for cavity nesting species such as great tit <i>Parus major</i>, blue tit <i>Cyanistes caeruleus</i>, marsh tit <i>Poecile palustris</i>, coal tit <i>Periparus ater</i> and crested tit <i>Lophophanes cristatus</i>, redstart <i>Phoenicurus phoenicurus</i>, nuthatch <i>Sitta europaea</i>, tree <i>Passer montanus</i> and house sparrows <i>Passer domesticus</i>, the interchangeable front panel comes with a variety of entrance holes (32mm, 26mm and oval shape) to attract different species, however, an entrance hole of 32mm is recommended for maximum diversity of use.</p> <p>The 1B nesting box is also available in four colors: brown, green, white and red. Brown would be considered the most appropriate colour, aiding the box to blend into the landscape and making it less evident to predators.</p> <p>The box is manufactured from long-lasting woodcrete, which is a blend of wood, concrete and clay which will not rot, leak, crack or warp, and will last for at least 20 – 25 years, making it suitable for long-term projects.</p>
<p>1N Schwegler Deep Nest Box</p>		<p>Birds which nest in recesses or cavities are at risk where there are large numbers of magpies <i>Pica pica</i>, jays <i>Garrulus glandarius</i> and mammalian predators. The 1N has two entrances and a removable wooden insert and offers excellent protection.</p> <p>Robins <i>Erithacus rubecula</i> are particularly attracted to this type of box, especially if it is placed approx. 1 to 1.5m above the ground, preferably in a moist, shady area. The wooden insert, which can be removed for inspection and cleaning purposes, gives protection against predators because nesting takes place at the far end of the box. It is particularly effective against predators and therefore makes an effective contribution to breeding success.</p> <p>The box is manufactured from long-lasting woodcrete, which is a blend of wood, concrete and clay which will not rot, leak, crack or warp, and will last for at least 20 – 25 years, making it suitable for long-term projects.</p>
<p>Siting</p>	<p>The 1B nest boxes can be sited in trees or mounted to poles and is best positioned at a height of between 2 to 4 metres.</p>	

Appendix 2 – Bat and Bird Box Specifications

Suitable Bird Boxes	
	<p>The 1N nest boxes can be sited in trees or mounted to poles and is best positioned at a height of between 1 to 1.5 metres.</p> <p>Boxes should be angled so that they face away from the prevailing wind or in a semi sheltered environment. Positioning within or close to hedgerows will increase chances of occupation.</p>
Timing	<p>Bird boxes will be erected outside of the breeding bird season, to eliminate the possibility of disturbing birds currently utilising the trees for nesting.</p>
Other Notes	<p>Note that bird boxes should not be opened between the months of March to September to avoid disturbing nesting birds.</p>
References	<p>http://www.nhbs.com/title/158587/1b-schwegler-nest-box</p> <p>http://www.nhbs.com/title/158609/1n-schwegler-deep-nest-box</p>