

Infrastructure Projects

Northern Programmes



Transpennine Route Upgrade

Work Package 1 – Manchester Victoria to Stalybridge

Clayton Vale Park

ELR: MVL1 3 miles 20 chains (approx.)

Ecological Impact Assessment Report

Network Rail

Reference No: 151667-TSA-00-TRU-REP-W-LP-000052

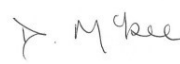
Issue Date: 25-02-22

Version: P01



W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

Approval and Authorisation

	Name	Job Title	Signature
Prepared By:	Dermot McKee	Ecologist	
Checked By:	Leila Payne	Associate Director (Ecology)	
Approved By:	Leila Payne	Associate Director (Ecology)	
Authorised By:	Jim Pearson	Network Rail Environment Manager	

Document Identity and Metadata Information

This information is a mandatory requirement.

Scope of Document:

- ☐ All of Northern Programmes
☐ Northern Programmes Enhancements
☐ Northern Hub
☐ North West Electrification
☒ Transpennine Route Upgrade
☐ Northern Powerhouse Rail

Document Category:

Applicable Grip Stage(s):

Briefing Required:

Security Classification:

Report

ALL / 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8

☐

OFFICIAL

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

Document History

Version	Date	Modification	Originator
P01	9/12/21	First Issue	DMc
P02	6/01/22	Update to address Atkins comments	LP
P03	07/02/22	Update with revised Red Line Boundary	DMc
P04	16/02/22	Minor updates	LP

Reference:	151667-TSA-00-TRU-REP-W-LP-000052
Version:	P01
Date:	25-2-2022

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

Implementation

The latest version of this document shall supersede any previous versions.

Compliance

This document is mandated across the 'scope' detailed in section document identity, scope and metadata.

Specific authority not to comply with this document can be requested from the Approval Signatory using the Technical Query process found with the Common Data Environment (CDE).

Disclaimer

In issuing this document for its stated purpose, Northern Programmes make no warranties, expressed or implied that compliance with all or any documents it issues is sufficient on its own to ensure safe systems of work or operation. Users are reminded of their own duties under health and safety legislation.

All references made within this document were considered correct at time of approval.

Supply

Copies of this document are available electronically via the Common Data Environment but shall be deemed uncontrolled once printed.

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

Table of Contents

1. INTRODUCTION	7
2. METHODOLOGY	8
2.1 Scope of the Assessment.....	8
2.2 Desk Study.....	9
2.3 Field Survey	10
2.4 Limitations	11
3. BASELINE	12
3.1 Site Overview	12
3.2 Designated Sites	12
3.3 Habitats of Principal Importance (HoPI) and Ancient Woodland	13
3.4 EPSM Licenses	14
3.5 Site Habitats.....	14
3.6 Protected and Priority Species	16
3.7 Invasive Non-Native Species	19
4. IMPACT ASSESSMENT, MITIGATION AND RESIDUAL EFFECTS	20
5. CONCLUSIONS	27
FIGURE 1: HABITAT FEATURES PLAN	28
FIGURE 2: DESIGNATED SITES PLAN	29
PHOTOGRAPHS	30
APPENDIX A HABITAT CONDITION ASSESSMENT	37
APPENDIX B GREAT CRESTED NEWT HABITAT SUITABILITY INDEX CALCULATION ..	40
APPENDIX C LEGISLATION.....	41

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

1. Introduction

1.1.1 Waterman Infrastructure & Environment Limited (Waterman) was commissioned by Atkins, on behalf of Network Rail, to carry out an Ecological Impact Assessment (EclA) of a land parcel adjacent to the railway corridor in Clayton Vale Park, Clayton, Manchester (MVL1 3m 20 ch (approx.); central Ordnance Survey national grid reference (OSNGR) SJ 88949 99538). The area surveyed was approximately 1.5 ha and is hereafter referred to as the 'Site'.

1.1.2 Drainage works are proposed at the Site as part of the. The proposed works are part of the wider Transpennine Route Upgrade (TRU) Scheme (W1 section) and comprise a wider scheme of works to improve drainage of the railway line for an approximately 300m stretch adjacent to the northern boundary of Clayton Vale Park, which is currently prone to surface water flooding. The proposed development comprises:

- An underground drain which will convey surface water from the railway line into an attenuation tank;
- An underground attenuation tank to receive and temporarily store surface water;
- Two pre-cast concrete catch-pits;
- A further underground drain from the attenuation tank to an outfall/headwall;
- An outfall/headwall to an existing watercourse which feeds into the River Medlock.

1.1.3 The purpose of this report is to support a planning application by:

- Identifying any important ecological features (IEFs) present within the Site and zone of influence (Zol) of the development;
- Describing potentially significant ecological effects associated with the development;
- Setting out environmental measures in line with the Mitigation Hierarchy required to comply with relevant planning policies and nature conservation legislation; and
- Providing an assessment of significant residual effects.

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

2. Methodology

2.1 Scope of the Assessment

- 2.1.1 The scope of this EclA is based on current guidelines¹. Consideration is applied to identifying IEFs within the Zol, as detailed below. If IEFs are identified they are subject to evaluation.
- 2.1.2 The Zol is the area(s) over which ecological features may be impacted by the biophysical changes caused by the proposed development. Based on the scale and nature of the development, it has been assessed that the Zol arising from these works is unlikely to be greater than 1 km from the Site and 2km for Statutory Designated Sites. Therefore, these buffer zones have been used to collect the ecological data search information.
- 2.1.3 The field survey area is indicated in Figure 1 and comprised the site and immediate surroundings. However, adjacent land was viewed where possible from the Site and aerial photography for the area has also been reviewed.
- 2.1.4 In this report, designated sites, habitats and species that fall into the categories in **Table 2.1** and **Table 2.2** have been identified as being IEFs.

Table 2.1. Important Ecological Feature categories

Geographical Level of Importance	Category
International	Statutory designated sites: Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites (including candidate SACs and proposed SACs, SPAs and Ramsar sites). A viable area of a habitat type listed in Annex I of the Habitats Directive, or smaller areas of such habitat essential to maintain the viability of a larger whole. Regularly occurring populations of a species large enough in number to be of international importance where: • The loss or degradation of these populations would adversely affect the conservation status or distribution of the species at this geographic scale; or • The population forms a critical part of a wider population at an international level; or • The species is at a critical phase of its life cycle at this scale.
National	Statutory designated sites: Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNR). Ancient Woodland. A viable area of a Habitat of Principal Importance as listed on Section 41 of the Natural Environments Rural Communities (NERC) Act 2006 or smaller areas of such habitat essential to maintain the viability of a larger whole. Resident, or regularly occurring, populations of species², significant at an International, European, UK or National level where: • The loss of these populations would adversely affect the conservation status or distribution of the species at a national level; or • The population forms a critical part of a wider population at this scale; or • The species is at a critical phase of its life cycle at this scale.

¹ CIEEM (2018): 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine.' Chartered Institute of Ecology and Environmental Management, Winchester.

² Legally protected and other notable species including listed on Section 41 of the NERC Act 2006.

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

Geographical Level of Importance	Category
County	Local Nature Reserves (LNR); and Non-statutory designated wildlife sites of county value. Areas which meet the published selection criteria for county site designations, but which are not themselves designated as such. Species – as per National level but where the loss of these populations would negatively affect the conservation status or distribution of the species at a county level and where populations/species are critical at the county scale. This may include locally significant populations of a species listed in a County BAP on account of its regional rarity or localisation.
District/Borough	Non-statutory designated wildlife sites of district/borough value. Species – as per County level but where the loss of these populations would negatively affect the conservation status or distribution of the species at a district level and where populations/species are critical at the district scale. This may include locally significant populations of a species listed in a District/Borough BAP on account of its regional rarity or localisation.
Local	Non statutory designated sites of local value. Areas of habitat considered to appreciably enrich the habitat resource within the local context (e.g. species-rich hedgerows, ponds etc.). It may also include sites that retain other elements of semi-natural vegetation that due to their size, quality or the wide distribution of such habitats within the local area are not considered for local designations. Populations/assemblages of species that appreciably enrich the biodiversity resource within the local context. Populations of county level important species that are not threatened or rare in the county and are not integral to maintaining those populations.
Site	Habitats and/or species that are of limited ecological importance due to their size, species composition or other factors. Areas of heavily modified or managed vegetation of low species diversity. Low or moderate numbers of common and widespread species.

Table 2.2. Legally protected species

Legislation
Species included on Schedules II and V of The Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019;
Species included on Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 (as amended), excluding species that are only protected in relation to their sale (Section 9[5] and 13[2]); and
Badgers, which are protected under the Protection of Badgers Act 1992.

2.2 Desk Study

2.2.1 The sources of information and search areas used in the desk study are summarised in **Table 2.3**. The search areas reflect the likely maximum zone of influence of the development.

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

Table 2-3. Desk study data sources and search areas

Data source	Ecological feature	Search area
Multi-Agency Geographic Information for the Countryside (MAGIC) website ³ (December 2021).	Statutory designated sites for nature conservation: Ramsar, SAC, SPA, SSSI, NNR, LNR.	2 km
	Habitats of Principal Importance (HoPI) ⁴ and Ancient Woodlands.	1 km
	Granted European Protected Species Mitigation (EPSM) licences.	1 km
Greater Manchester Ecology Unit (GMEU) data taken from W1 Ecological Constraints Report (151667-TSA-00-TRU-REP-W-EN-000652) and supplied in November 2019.	Non-statutory designated sites for nature conservation: Sites of Biological Importance (SBI)	1 km
	Recent records (2009 onwards) of protected and priority flora and fauna ⁵ .	1 km
Online Ordnance Survey OS maps and publicly available satellite imagery (accessed November 2021).	Information on habitats (including ponds) and habitat connectivity relevant to the assessment of protected and priority species.	250 m

2.3 Field Survey

- 2.3.1 The proposed development site and surrounding area including land within the railway corridor and within the adjacent Clayton Vale Park was surveyed on two separate occasions. The survey area and development boundary are shown in Figure 1.
- 2.3.2 Land within the railway corridor was surveyed during the daylight hours of a night-time possession on the early morning of 30th June 2021 by Waterman ecologist Dermot McKee, accompanied by Keltbray CoSS Dean McNally. Weather conditions were good (12°C, dry, patchy cloud, wind 4 mph north-easterly). Land within Clayton Vale Park was surveyed on the morning of 10th November 2021 by Waterman ecologist Dermot McKee, accompanied by Waterman Arboriculturist Richard Harris. Weather conditions were good (9°C, overcast, occasional light drizzle, wind = 2 mph WSW). On both occasions habitats were characterised using the UKHab classification system⁶, and their condition was assessed

³ <https://magic.defra.gov.uk/>

⁴ Habitats of Principal Importance for nature conservation in England listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006; and habitats listed in Greater Manchester Biodiversity Action Plan.

⁵ As listed under Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 (as amended); Schedules 2 and 4 of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019; Species of Principal Importance for nature conservation in England listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006; and species listed in the Greater Manchester Biodiversity Action Plan. Records of invasive non-native plant species (listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)) were also reviewed.

⁶ UK Habitat Classification Working Group (2018). UK Habitat Classification – Habitat Definitions V1.0.

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

according to Biodiversity Net Gain criteria^{7,8}. The value and sensitivity of ecological features present within the Site were determined based on the guidance given by CIEEM^{9,10}.

- 2.3.3 Any evidence of protected species or groups encountered during the survey was recorded¹¹. This included observation of field signs and an assessment of the suitability of the habitats present to support protected species. Any evidence for the presence of invasive non-native species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) was also recorded.

2.4 Limitations

- 2.4.1 The survey of Clayton Vale Park was not conducted during the optimum survey season for undertaking habitat surveys. However, all areas of the Site were readily accessible, and vegetation die-back did not limit the accurate characterisation of habitats.
- 2.4.2 Data search records were taken from the W1 Ecological Constraints Report (151667-TSA-00-TRU-REP-W-EN-000652) and were obtained from GMEU in November 2019, approximately within 2 years of the survey. The age of these records is not considered to be a significant limitation because a Site visit was undertaken and a precautionary approach regarding the presence and value of species has been adopted.
- 2.4.3 An environmental DNA (eDNA) survey of the pond within the survey area has not been undertaken due to seasonal constraints. This has not prevented the ability to place a value on the habitats within the site boundary for great crested newt or prevented the objectives of the EcIA being met given the implementation of avoidance measures detailed in this report which will avoid residual effects on this species and demonstrate legal compliance.

⁷ Crosher, I.A., Gold, S.B., Heaver, M.D., Heydon, M.A., Moore, L.D., Panks, S.A., Scott, S.C., Stone, D., White, N.N. 2019. The Biodiversity Metric 2.0: Auditing and accounting for biodiversity value: technical supplement (Beta version, July 2019). Natural England.

⁸ As the BNG assessment for the wider scheme has already commenced, the condition assessment and BNG assessment for this site and the wider scheme will continue to follow the guidance published to support Defra 2.0 methodology as opposed to the more recent Defra 3.0 methodology (PANKS *et al.* (2021) Biodiversity metric 3.0: Auditing and accounting for biodiversity – User Guide. Natural England). This is to allow for consistency for assessments within the wider scheme and is in line with advice given by Natural England and Defra in Measuring and Tracking Net Gains Live (event on the 7th July 2021).

⁹ CIEEM (2018) 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine.' Chartered Institute of Ecology and Environmental Management, Winchester.

¹⁰ CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

¹¹ Species listed under Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 (as amended); Schedules 2 and 4 of The Conservation of Habitat & Species Regulations 2017 (as amended); species of Principal Importance listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006; and species listed in the Greater Manchester Biodiversity Action Plan.

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

3. Baseline

3.1 Site Overview

- 3.1.1 The survey area containing the site is an area of land within the railway corridor and within the adjacent Clayton Vale Park in Clayton, Manchester. It is approximately 1.5 ha in area and the accessible area of the Site within the Park is well used as a public space.
- 3.1.2 There is good ecological connectivity between the Site and the rest of the Park, as well as the corridor of the river Medlock. However, in the wider landscape context, the Site is relatively isolated as it is surrounded by extensive urban development and is bordered to the east by the busy Berry Brow Road. This means that the Site is unlikely to be part of an important foraging or commuting corridor for species other than those widespread and common species typical of urban and urban fringe environments.

3.2 Designated Sites

- 3.2.1 Table 3.1 outlines the designated sites within the ZOI and their description and value (see Figure 2).

Table 3-1 Designated sites for nature conservation within ZOI

Name and Designation	Approximate distance and direction from the Site	Description and value
Rochdale Canal SAC/SSSI (occupy broad same boundary)	1.4 km north	Canal designated for its assemblage of aquatic plants. SAC is important at International level and SSSI is important at the National level.
Clayton Vale LNR	The Site is within the LNR	An important area of urban green space bordering the river Medlock and in the heart of the Medlock Valley. Deciduous woodland and a number of ponds are present. Given the urban context of Greater Manchester, Clayton Vale is considered to be important at a County level.
Clayton Vale Ponds SBI	300 m and 800 m west	Two ponds within Clayton Vale LNR designated for their reedbeds. Anecdotal evidence indicates that these are fishing ponds ¹² . SBIs are designated at the level of Greater Manchester

¹² http://www.medlockvalley.org.uk/Sites/philippark/Objects/PDFs/Clayton_Vale/Clayton_Vale_Leaflet.pdf [Accessed December 2021]

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

Name and Designation	Approximate distance and direction from the Site	Description and value
		and are therefore considered important at a County level.
Brookdale Clough SBI	600 m north	Area of woodland and open green space within Brookdale Park. SBIs are designated at the level of Greater Manchester and are therefore considered important at a County level.
Medlock Vale and Lumb Clough SBI	900 m east	An area of woodland and open green space within the corridor of the river Medlock. Includes a large fishing lake. SBIs are designated at the level of Greater Manchester and are therefore considered important at a County level.

3.2.2 The Rochdale Canal SAC/SSSI is located within 2 km of the Site but is separated and isolated from the Site by an extensive and continuous area of built environment. No conceivable pathways exist between the site and Rochdale Canal SAC/SSSI and as such these designated sites are not discussed further in this report.

3.2.3 The Site is within Clayton Vale LNR and as such Clayton Vale LNR is considered an IEF.

3.2.4 There are three non-statutory designated sites for nature conservation within 1 km of the Site (Clayton Vale Ponds SBI (300 m and 800 m west); Brookdale Clough SBI (600 m north) and Medlock Vale and Lumb Clough SBI (900 m east)). However, they are unlikely to be affected by the small footprint and highly localised nature of the development. In the case of Clayton Vale Ponds, the SBIs are separated from the Site by 300m and 800m of woodland serving as screening/ buffer habitat between the Site and the SBIs with no hydrological pathway. In the case of Brookdale Clough SBI, urban built habitat isolates the SBI from the site. Medlock Vale and Lumb Clough SBI is within the corridor of the river Medlock but is upstream of the Site and isolated by distance (900 m in a straight line but > 1 km along the river channel). Non-statutory designated sites are not considered to be a constraint to the development and are not further discussed in this report.

3.3 Habitats of Principal Importance (HoPI) and Ancient Woodland

3.3.1 The Priority Habitat Inventory shows extensive areas of broad-leaved deciduous woodland within the Site and within 1 km of the Site, located throughout Clayton Vale LNR, the corridor of the river Medlock and Brookdale Park. The presence of a Priority Habitat on the Inventory is a good indication of the presence of HoPI, which was confirmed through the site visit as other Lowland Mixed Deciduous Woodland (w1f7) (see Table 3.2 below)¹³.

¹³ Priority Habitats were identified as of high conservation value under the UK Biodiversity Action Plan. However, the Priority Habitats list has now been superseded by Habitats of Principle Importance (HoPI) listed under Section 41 of the NERC Act 2006. As such Priority Habitat Inventory can provide an indication of the location of HoPIs.

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

3.3.2 There is no ancient woodland located within the Site or within 1 km of the Site.

3.4 EPSM Licenses

3.4.1 No granted EPSM licence applications were recorded within the Site or within 1 km of the Site.

3.5 Site Habitats

3.5.1 Site habitats are described in **Table 3-2**, **Figure 1** (including **Target Notes**) and **Photographs 1 - 9**.

Table 3-2 Description of Site habitat

Habitat	Description and Evaluation
Other lowland mixed deciduous woodland w1f7	Young and semi-mature trees: frequent sycamore <i>Acer pseudoplatanus</i>, silver birch <i>Betula pendula</i>, ash <i>Fraxinus excelsior</i>, and oak <i>Quercus robur</i>; occasional horse-chestnut <i>Aesculus hippocastanum</i>, beech <i>Fagus sylvatica</i> (young individuals in understorey only), hybrid black poplar <i>Populus x canadensis</i> and aspen <i>Populus tremula</i>. A single larch <i>Larix decidua</i> was noted. Understorey: occasional hazel <i>Corylus avellana</i>, hawthorn <i>Crataegus monogyna</i>, blackthorn <i>Prunus spinosa</i> and goat willow <i>Salix caprea</i>; rare dogwood <i>Cornus sanguinea</i>, holly <i>Ilex aquifolium</i>, elder <i>Sambucus nigra</i> and guelder-rose <i>Viburnum opulus</i>. Ground flora: abundant ivy <i>Hedera helix</i> and annual meadow-grass <i>Poa annua</i>; frequent cock's foot <i>Dactylis glomerata</i>, cleavers <i>Gallium aparine</i>, wood avens <i>Geum urbanum</i>, creeping buttercup <i>Ranunculus repens</i>, bramble <i>Rubus fruticosus</i> and nettle <i>Urtica dioica</i>; occasional hart's tongue <i>Asplenium scolopendrium</i>, lady fern <i>Athyrium filix-femina</i>, common smooth-cap <i>Atrichum undulatum</i>, rough-stalked feather-moss <i>Brachythecium rutubulum</i>, hogweed <i>Heracleum sphondylium</i>, common feather-moss <i>Kindbergia praelonga</i>, dog rose <i>Rosa canina</i> agg. and raspberry <i>Rubus idaeus</i>; rare capillary thread-moss <i>Bryum capillare</i>, forked veilwort <i>Metzgeria furcata</i> and wood bristle-moss <i>Orthotrichum affine</i>. Invasive non-native species: Japanese knotweed <i>Fallopia japonica</i> and Himalayan balsam <i>Impatiens glandulifera</i> were occasionally present (see Section 3.7). This habitat is categorised as other lowland mixed deciduous woodland due to the woodland composition matching that of a lowland mixed deciduous woodland vegetation community. In addition species present indicate that this habitat would also conform with National Vegetation Classification community type W8d, which is a HoPI and corresponds to UKHAB w1f7.

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

Habitat	Description and Evaluation
	The habitat was in poor condition and scored 25 in the condition assessment (see Appendix A). Given the urban context of the surrounding landscape, the presence of a HoPI in this context may be considered to be of importance to nature conservation at the County level (i.e. Greater Manchester), however given the poor condition of this habitat it is considered of importance to nature conservation at the District/Borough level.
<i>Arrhenatherum</i> neutral grassland g3c5, 10, 11	<i>Arrhenatherum</i> neutral grassland with scattered scrub and trees is located within the railway corridor. There had been extensive de-vegetation of this habitat area just prior to the Site visit on 30th June 2021. Species included: abundant false oat-grass <i>Arrhenatherum elatius</i>; occasional semi-mature sycamore, field horsetail <i>Equisetum arvense</i>, semi-mature hybrid black poplar, creeping buttercup, bramble, goat willow <i>Salix caprea</i> and nettle; and rare flag iris <i>Iris pseudacorus</i>. This habitat was considered to be in poor condition. It is considered of importance to nature conservation at the site level only.
Other neutral grassland g3c	Species included: abundant cock's foot <i>Dactylis glomerata</i>, Yorkshire fog <i>Holcus lanatus</i> and annual meadow grass <i>Poa annua</i>; frequent creeping buttercup <i>Ranunculus repens</i> and white clover <i>Trifolium repens</i>; and occasional false oat-grass <i>Arrhenatherum elatius</i>, creeping thistle <i>Cirsium arvense</i>, ribwort plantain <i>Plantago lanceolata</i> and red clover <i>Trifolium pratense</i>. There was a small area of rank vegetation typical of wetter conditions to the east of the pond (see Target Note 7). Species here included: abundant hard rush <i>Juncus inflexus</i>; frequent reed canary-grass <i>Phalaris arundinacea</i>; occasional meadowsweet <i>Filipendula ulmaria</i>, purple-loostrife <i>Lythrum salicaria</i> and water mint <i>Mentha aquatica</i>; and rare pendulous sedge <i>Carex pendula</i>. Invasive non-native species: Himalayan balsam was occasionally present in the rank vegetation bordering pathways and mown areas. This habitat was in poor condition, passing 2 out of 5 condition assessment criteria (see Appendix A). It is considered of importance to nature conservation at the Site level.
Other eutrophic standing waters (i.e. the pond) r1a6	There was a small pond within the area of neutral grassland approximately 60m from the site boundary. It was turbid and clearly heavily used by dogs. Species present included frequent curled waterweed <i>Lagarosiphon major</i> and reed canary-grass; and occasional common duckweed <i>Lemna minor</i>. Filamentous algae was frequent.

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

Habitat	Description and Evaluation
	This habitat was in moderate condition, passing 5 (using the Precautionary Principle) out of 9 criteria (see Appendix A). It is considered of importance to nature conservation at the Site level.
Other rivers and streams (i.e. the watercourse) r2b	A short watercourse runs through the woodland. It emerges from a pipe at approximate OSNGR SJ 88927 99575 and then re-enters a pipe at approximate OSNGR SJ 88967 99529, presumably to drain into the river Medlock. It was turbid where it emerged from the pipe, contained no aquatic plants and was heavily shaded along its entire length. River and stream habitats usually require a separate condition assessment (Modular River Survey MoRPH) but, in this case, this type of assessment is not necessary because the watercourse was clearly highly modified and in poor condition. This habitat is considered of importance to nature conservation at the Site level.

3.6 Protected and Priority Species

3.6.1 **Table 3.3** provides a summary of desk study and field survey results for protected species and species of principle importance.

Table 3-3 Summary of results for protected species and species of principal importance

Species	Summary Results and Evaluation
Badger	GMEU returned three recent records of badger <i>Meles meles</i> from within 1 km of the Site. These records all related to a sighting in Clayton Vale LNR, approximately 900 m to the west of the Site in 2010 and 2012. One of the records referred to the presence of an active sett. No evidence for the presence of badgers was found within the Site. No field signs (e.g. paths, foot prints, latrines, foraging marks) or setts were observed. Woodland within the Site provides foraging opportunity for badgers, but sett creation is unlikely because of lack of cover (for example few areas of dense understorey) and high disturbance from dogs. Badgers are not considered to be a potential constraint for the development and are not further discussed in this report.
Bats	GMEU returned 34 recent records for bats from within 1 km of the Site. These were for 'bat sp.', Daubenton's bat <i>Myotis daubentonii</i>, common pipistrelle <i>Pipistrellus pipistrellus</i> and 'pipistrelle sp.'. The closest record to the Site was of a 'pipistrelle sp.' roost in a house approximately 300 m to the north-west. No granted EPS licences were identified through desk study. No evidence for the presence of bats was found during the survey (e.g. sightings of individuals, droppings, fur-oil and urine staining around roost features and so on).

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

Species	Summary Results and Evaluation
	Site habitats have the potential to support foraging and commuting bats and small numbers of common and widespread species are highly likely to occur (e.g. common pipistrelle and noctule <i>Nyctalus noctula</i>). The presence of a roost within the Site is considered unlikely. This is because there are no buildings or other structures within the Site and all trees were young or semi-mature individuals that did not display obvious potential roost features. The trees on site were evaluated as a group rather than a detailed individual inspection, although inspection was given to those trees within the site boundary. As a precautionary measure, the woodland habitat is considered to offer low potential to support roosting bats. This survey area is considered to be of moderate potential for foraging bats given its location within an urban context and proximity to a river providing commuting opportunities. Bats are likely to forage over the woodland canopy and around the woodland edges. The site itself, given its smaller size and location adjacent to the railway and away from the river is considered to be of low potential to foraging bats The value of the site to the local bat population is considered to be at the Local level providing integrity to the Local surroundings.
Birds	GMEU returned 20 recent records of notable bird species from within 1 km of the Site. These were for: wood warbler <i>Phylloscopus sybilatrix</i> (one record), starling <i>Sturnus vulgaris</i> (four records), dunnock <i>Prunella modularis</i> (one record), bullfinch <i>Pyrrhula pyrrhula</i> (seven records) and song thrush <i>Turdus philomelos</i> (seven records). All are species of principal importance listed under Section 41 of the NERC Act 2006. Wood warbler and starling are on the birds of conservation concern¹⁴ red list; and dunnock, bullfinch and song thrush are on the amber list. There is a possibility that all species may occur foraging and commuting within the Site (wood warbler highly unlikely but possible during migration passage). There is a low possibility that all species except wood warbler may breed within the Site. The following species were noted within the woodland area of the Site during the survey: long-tailed tit <i>Aegithalos caudatus</i> (five individuals), robin <i>Erithacus rubecula</i> (three individuals), great tit <i>Parus major</i> (one individual), magpie <i>Pica pica</i> (two individuals) and dunnock (one individual). One of these species, dunnock, is notable as described above. The other species are common and widespread and are not currently of conservation concern. All may nest within the woodland, scattered trees and scrub area of the Site. Nesting within woodland, scattered trees and scrub within the Site by common and widespread species of bird typical of urban and urban fringe environments is likely, and similar habitat is offered in the wider local area. Specially protected species are highly unlikely to be present because of the

¹⁴ Stanbury, A.J., Eaton, M.A., Aebischer, N.J., Balmer, D., Brown, A.F., Douse, A., Lindley, P., McCulloch, N., Noble, D.G. & Win, I. 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds Volume: 114.

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

Species	Summary Results and Evaluation
	urban setting of the Site and because of the high disturbance from public access. The value of habitat within the Site for local bird populations is considered to be at the Site level.
Great crested newt	GMEU returned no records or granted EPS licences of great crested newt <i>Triturus cristatus</i> from within 1 km of the Site. All woodland, scrub, and unmown grassland habitat throughout the Site has potential to support great crested newts because it offers foraging and sheltering opportunity. There is a single pond within 60m of the site but no other ponds within 250 m of the Site. The Habitat Suitability Index calculations of this pond (see Appendix B) indicate that it has below average suitability for great crested newts and observation indicates it is subject to regular disturbance by dog walkers. Figure 2 shows the pond locations within 500m of the site. Within a 500m radius, the pond on site forms part of a cluster of four ponds within the Clayton Vale LNR which are relatively isolated from other pond clusters by the urban development around Droylsden, East Manchester. Two of these ponds are located south of the River Medlock which reduces connectivity and the likelihood of them serving metapopulation. Furthermore the pond cluster comprises the two SBI ponds (see above) which are fishing lakes, thus reducing their suitability for great crested newts as fish predate on eggs. There is one additional non-designated pond which is not a fishing lake, located approximately 300m south east of the pond on site, however this pond is located south of the River Medlock which is likely to act as barrier to dispersal. Anecdotal evidence indicates that amphibians including smooth and/or palmate newts (most likely smooth newt due to surrounding habitat) occur, or have historically occurred, within one or more of the four ponds within Clayton Vale LNR¹⁵. Given the lack of local records, isolation, and relatively poor condition of the pond within the Site, it is unlikely that great crested newts occur within the Survey area and therefore the Site. Adopting a precautionary approach in the absence of surveys on the pond (see limitations) great crested newts within the survey area (including the site) are considered to be important at a Local level due to the potential for the habitats to offer some terrestrial foraging and hibernation habitat. It should be noted that habitat closer to the pond (in particular within 50m) are more likely to be used for terrestrial habitat as the habitats within the Site are not of higher value. As a precaution the value of the Site for other common amphibians is considered to be at a Local level, given the context of the Site within the local area.

¹⁵ http://www.medlockvalley.org.uk/Sites/philipspark/Objects/PDFs/Clayton_Vale/Clayton_Vale_Leaflet.pdf [Accessed December 2021]

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

Species	Summary Results and Evaluation
Reptiles	GMEU returned no recent records for reptiles from within 1 km of the Site. Site habitats are sub-optimal for reptiles because they lack a good mosaic of short and long sward vegetation mixed with open ground for basking and areas for shelter and refuge (for example log-piles). They are also highly disturbed, particularly by dogs. However, there is a low probability that common and widespread species (slow worm <i>Anguis fragilis</i> and common lizard <i>Zootoca vivipara</i>) may be present in small numbers. Adopting a precautionary approach, the site is considered to be of Local importance for reptile.
Riparian Mammals and White-clawed Crayfish	GMEU returned no records or granted EPS licences of riparian mammals (otter <i>Lutra lutra</i> and water vole <i>Arvicola amphibious</i>) or white-clawed crayfish <i>Austropotamobius pallipes</i> from within 1 km of the Site. Habitat within the survey area is highly unlikely to support these riparian and aquatic species. This includes the watercourse, which is too short, modified and disturbed to support otters and/or water voles; and lacks the water quality, and structural diversity in substrate and bank characteristics to support white-clawed crayfish. There is a small possibility that the river Medlock, which flows adjacent to the southern boundary of the survey area, supports some or all of these species. In particular, there could be transient presence of otters. Nevertheless, the development is highly unlikely to affect the river Medlock. Riparian mammals and white-clawed crayfish are not considered to be a potential ecological constraint for the development and are not further discussed in this report.

3.7 Invasive Non-Native Species

- 3.7.1 GMEU returned no recent records of invasive non-native plant species from within 1 km of the Site.
- 3.7.2 Three invasive non-native plant species were recorded within the Site. Japanese knotweed was present in the woodland (**Figure 1, Target Notes 2-4; Photographs 7, 10, 11**). Himalayan balsam was present in the woodland and occasionally around the margins of the grassland (**Figure 1, Target Notes 1, 5 and 6; Photographs 12-14**). Curled waterweed was present in the pond.
- 3.7.3 Invasive non-native species of plant are considered to be a potential constraint for the development.

Reference:	151667-TSA-00-TRU-REP-W-LP-000052
Version:	P01
Date:	25-2-2022

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

4. Impact Assessment, Mitigation and Residual Effects

4.1.1 The ecological constraints and potential impacts arising from the development are set out in **Error! Reference source not found.**, together with an assessment of the need for further survey, recommendations for mitigation and anticipated residual effects from the development after mitigation has been implemented.

Table 4-1 Ecological impacts, mitigation and residual effects of the development

Important Ecological Feature	Location	Summary of potential impacts	Pre-construction Survey Required?	Avoidance, Reduction and Mitigation	Residual Effects
Statutory Designated Sites					
Clayton Vale LNR	The Site is within Clayton Vale LNR	Risk of temporary or permanent loss of habitat within LNR, disturbance or damage to species that are integral to the LNR, damage to the ecological integrity of the LNR. The development is unlikely to significantly affect Clayton Vale LNR because works will be of short duration, the footprint will be relatively small (0.08ha) and vegetation clearance will be minimal. The expected temporary loss of habitat is: 0.064 ha of Woodland and forest – Lowland mixed deciduous woodland, 0.010 ha of Grassland – Other neutral grassland (scattered scrub and trees) 0.002 ha of Urban – Developed land;	No	An Environmental and Social Management Plan (ESMP) will describe how vegetation clearance will be minimal; how measures to prevent soil loss and excessive compaction will be implemented; how measures to prevent pollution to the watercourse (sediment and work associated materials) will be implemented; and how measures to prevent the spread of invasive non-native species will be included. Standard good practice pollution prevention guidelines will be adhered to^{17, 18}. It is anticipated that vegetation will re-establish across all disturbed areas and there will be no fragmentation or	Local level

¹⁷ Protecting the environment when working over water (networkrail.co.uk)
¹⁸ https://www.ciria.org/Resources/All_toolbox_talks/env_toolbox_talk.aspx

Reference:	151667-TSA-00-TRU-REP-W-LP-000052
Version:	P01
Date:	25-2-2022

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

		sealed surface (requires no compensation) Grassland and scattered scrub loss is likely to regenerate quickly and whilst woodland regeneration would take 20+ years to reach maturity the extent of woodland loss within the context of the LNR is minor. Minor tree removal would mimic the creation of a ride and provide a localised increase sunlight through opening up canopy, which may provide other ecological benefit¹⁶. The is a small watercourse (4.31 metres) that runs through the Site and feeds into the river Medlock providing a potential pathway for pollution (sediment and/or construction related materials) from the development to spread through the LNR.		permanent loss of habitat. Where possible, tree removal to be retained is log piles within areas of the site which have been opened up to an increase in sunlight to provide a greater diversity of micro climate, increase in structural diversity, also providing habitat for a variety of fauna. Consultation with The Wildlife Trust for Lancashire, Manchester and North Merseyside will be undertaken prior to any vegetation removal.		
Habitats						
Lowland Deciduous Woodland Habitat of Principle Importance	Mixed	All woodland within the Site	Tree removal, damage to trees and understorey/ground flora vegetation. Soil disruption and compaction. Tree root damage.	No	Pruning and/or felling of trees will be avoided/minimised. An ESMP will describe how damage to soil and tree roots will be avoided. Woody arisings from de-vegetation works will not be chipped but will be appropriately stacked to form wood piles. This will add biodiversity value to the woodland area by providing further dead wood resource. Woodland will be replanted.	Local level

¹⁶ Example literature includes Kent Wildlife Trust Land Mgnagementt Advice Sheet 10 - Woodland management -ride and coppice.pdf (kentwildlifetrust.org.uk) [Accessed December 2021]

Reference:	151667-TSA-00-TRU-REP-W-LP-000052
Version:	P01
Date:	25-2-2022

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

Species					
Bats	There is a low probability that a bat roost may be present in trees within the Site which have not been individually assessed for bat roosting potential.	Pruning and/or felling of trees could destroy a bat roost and potentially kill individual bats (considered unlikely). Habitat loss may result in loss or fragmentation of foraging/commuting habitat. Construction work/lighting may result in disturbance to foraging/roosting bats	Possible	The relatively minor de-vegetation works, temporary disturbance and small footprint of the development are unlikely to significantly affect foraging and commuting bats. Work will avoid night-time (i.e. half an hour before and after sunrise) and will be of short duration. Temporary habitat loss would not result in significant impacts as there is an abundance of similar habitat in the immediate vicinity of the Site, and losses are not near the river or other strong commuting features. Trees within the site were assessed as a group of providing low bat roosting potential. To ensure legal compliance, as part of the ESMP all trees that will be affected by the development will be checked for the presence of potential roost features. If potential roost features of moderate or high suitability for bats were to be discovered, then further survey to determine the presence/likely absence of bats would be necessary. If potential roost features of low suitability for bats were to be discovered, then no further survey would be necessary (but 'soft-felling' of the tree would be required whereby the stem/limb with the potential roost feature is lowered to the ground and	Site level

Reference:	151667-TSA-00-TRU-REP-W-LP-000052
Version:	P01
Date:	25-2-2022

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

				left for at least 24 hours to allow any bats potentially present to escape under their own volition). In the unlikely event that any night work is required directional lighting will be used to direct light away from surrounding vegetation in line with standard guidance¹⁹.	
Nesting Birds	Throughout all woodland areas of the Site.	Vegetation clearance could cause damage to nests and eggs and/or killing and injury of young and adult birds.	Possible	Vegetation clearance will be undertaken outside the core bird breeding season, which runs from 1st March to 31st August (inclusive). If this is not possible, a competent person will check for active nests within and around the vegetation to be cleared no more than 24h prior to the clearance. If there is uncertainty about the possible presence of a nest, then an ecologist will be contacted for further advice (good photographs of the area in question are usually helpful). If an active nest were to be found, a no disturbance exclusion zone (area to be determined by an ecologist) would be established around the nest until it was satisfactorily proved that it was no longer in use.	Site level
Great Crested	Woodland/	Removal of terrestrial habitat has	Yes	Disturbance to great crested newt and	Site level

¹⁹ Bat Conservation Trust (2018) Guidance Note 8 Bats and Artificial Lighting in the UK

Reference:	151667-TSA-00-TRU-REP-W-LP-000052
Version:	P01
Date:	25-2-2022

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

Newts and other amphibians	scrub (within site)	potential to disturb or injure great crested newt and disturb/damage places of shelter, although this is considered unlikely.		other amphibians is unlikely as the pond in the survey area (60m from the site) provides sub optimum breeding habitat. Furthermore, alternative terrestrial habitat comprising grassland and woodland is located closer to the pond in the core terrestrial habitat zone for great crested newt (i.e. 50m of pond). Furthermore temporary habitat loss required for the works would result in the loss of less than 0.01ha of potential intermediate terrestrial habitat for great crested newt. given the abundance of alternative woodland, scrub and rough grassland within 250m of the pond this temporary loss and potential for disturbance is considered low. As a precautionary legal compliance measure and also to avoid injury to other common amphibians, vegetation clearance will be accompanied by a Method Statement as part of the ESMP to avoid clearance of features that may offer hibernation habitat for amphibians (e.g. ground level woodland/scrub) during the hibernation season where disturbance can result in fatality to individuals (November to February inclusive, depending on seasonal variations). Sensitive clearance measures to be employed under an ecological watching brief. In the highly unlikely event that a great	
----------------------------	---------------------	---	--	---	--

Reference:	151667-TSA-00-TRU-REP-W-LP-000052
Version:	P01
Date:	25-2-2022

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

				crested newt is located during vegetation clearance work, works would stop and advice sought from the project ecologist to avoid breaching wildlife legislation. A preconstruction eDNA survey of the pond will be undertaken 15th April – 30th June (2022) to confirm presence/likely absence to further inform the Method Statement.	
Reptiles	Woodland, scrub, wood piles	Vegetation removal has the potential to result in habitat loss for reptiles or to kill/injure a reptile, although this is considered unlikely.	No	Disturbance to reptiles is unlikely given the suboptimal habitat (i.e. lack of mosaic and open areas for basking). As a precaution, and to ensure legal compliance, vegetation clearance will be accompanied by a Method Statement as part of the ESMP to avoid clearance of features (e.g. wood piles, debris piles) that may offer reptile habitat at sensitive times of year (i.e. hibernation season where disturbance can result in fatality to individuals- November to February inclusive, depending on seasonal variations). Sensitive clearance methods to be employed.	Site level
Invasive Non-Native Species					
Japanese knotweed, Himalayan balsam, Curled waterweed	Within the woodland; along rank margins of	It is an offence to cause the spread of Japanese knotweed, Himalayan balsam and curled waterweed in the wild.	No	The ESMP will detail how the spread of Japanese knotweed and Himalayan balsam will be avoided using standard	At the site level removal/control of

Reference:	151667-TSA-00-TRU-REP-W-LP-000052
Version:	P01
Date:	25-2-2022

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

	the grassland; within the pond.	Movement of contaminated soil, clothing/shoe tread, materials and machinery within and off the Site could cause the spread of Japanese knotweed and/or Himalayan balsam.		Network Rail guidance ^{20, 21} . This will involve identifying all locations of these plants relative to the development area (within 7 m for Japanese knotweed and within 2 m for Himalayan balsam), avoiding contamination around the Site and good Site hygiene.	invasive non-native plant species would improve the condition of the woodland and grassland habitats.
--	---------------------------------	--	--	--	---

²⁰ [Japanese-knotweed-Guidance-2018-v1.pdf \(networkrail.co.uk\)](#);

²¹ <https://safety.networkrail.co.uk/wp-content/uploads/2016/05/Himalayan-Balsam.pdf>

Reference:	151667-TSA-00-TRU-REP-W-LP-000052
Version:	P01
Date:	25-2-2022

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

5. Conclusions

- 5.1.1 The Site is almost wholly within Clayton Vale LNR and is therefore part of a statutory designated area for nature conservation, important at the County level.
- 5.1.2 A large area of the Site is lowland mixed deciduous woodland which is a Habitat of Principle Importance as listed on S41 of the NERC Act (2006) (as amended). Given the poor condition of the woodland this is considered important at a District/Borough level.
- 5.1.3 To avoid and minimise impacts to Clayton Vale LNR and the lowland mixed deciduous woodland an ESMP will be produced and strictly adhered to. This will limit habitat loss and where possible avoid the pruning and/or felling of trees and will seek to minimise the footprint of the development. It is anticipated that understorey and ground flora vegetation will quickly re-establish and that there will be no permanent loss or fragmentation of habitat. It is anticipated that there will be no significant impact of the development outside of the direct footprint of the works. Therefore, the residual temporary effect of the development on Clayton Vale LNR and lowland mixed deciduous woodland will be at the Local level.
- 5.1.4 The Site has the potential to support common and widespread species typical of urban and urban fringe environments and no significant residual effects are predicted. Standard legal compliance and avoidance measures including preconstruction checks will be detailed in the ESMP relating to bats, breeding birds, amphibians (including great crested newt), and common reptiles.
- 5.1.5 Japanese knotweed and Himalayan balsam occur within the woodland and Himalayan balsam occurs around the grassland areas of the Site. The ESMP will detail avoidance measures to prevent their spread which will include clearly demarcating areas to avoid disturbance and vegetation removal. Should removal be required arisings will be carefully collected and treated as controlled waste in line with standard good practice measures.
- 5.1.6 As part of the wider W1 scheme a biodiversity net gain assessment is being carried out with a target of achieving a 10% net gain across 18 compounds (Network Rail TRU W1 Manchester Victoria to Stalybridge Biodiversity Net Gain Report (in writing December 2021)). The expected temporary loss of habitat biodiversity units arising from vegetation removal within the red line boundary is 0.49:
- 0.05 biodiversity units arising from loss of 0.010 ha of Other neutral grassland; and
 - 0.44 biodiversity units arising from 0.064 ha of Lowland mixed deciduous woodland.

All vegetation removal will be reinstated and a 10% BNG will be secured as part of the wider scheme.

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

FIGURE 1: HABITAT FEATURES PLAN**Target Notes**

Target Note 1: Himalayan balsam (dead stalks) abundant along woodland border with grassland.

Target Note 2: Small, vigorous, stands of Japanese knotweed in woodland next to steps.

Target Note 3: Small, vigorous, stands of Japanese knotweed in woodland next to steps.

Target Note 4: Small, vigorous, stands of Japanese knotweed along watercourse.

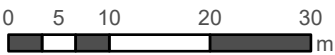
Target Note 5: Himalayan balsam occasional along the path border and boundary fence with the railway corridor.

Target Note 6: Himalayan balsam (dead stalks) abundant on steep slope dropping down towards the watercourse in the woodland.

Target Note 7: Small area of rank vegetation indicative of wet ground conditions.



-  Site Boundary
-  Survey Area
-  w1f7 - Other Lowland Mixed Deciduous Woodland*
-  g3c - Other Neutral Grassland
-  g3c5 - Arrhenatherum Neutral Grassland with Scattered Trees and Scattered Scrub
-  r1a6 - Other Eutrophic Standing Waters
-  r2b - Other Rivers and Streams
-  u1b - Urban, Developed Land, Sealed Surface
-  u1b6 - Other Urban Developed Land, Railway Ballast
-  Scattered Tree
-  Target Note
-  * Habitat of Principal Importance



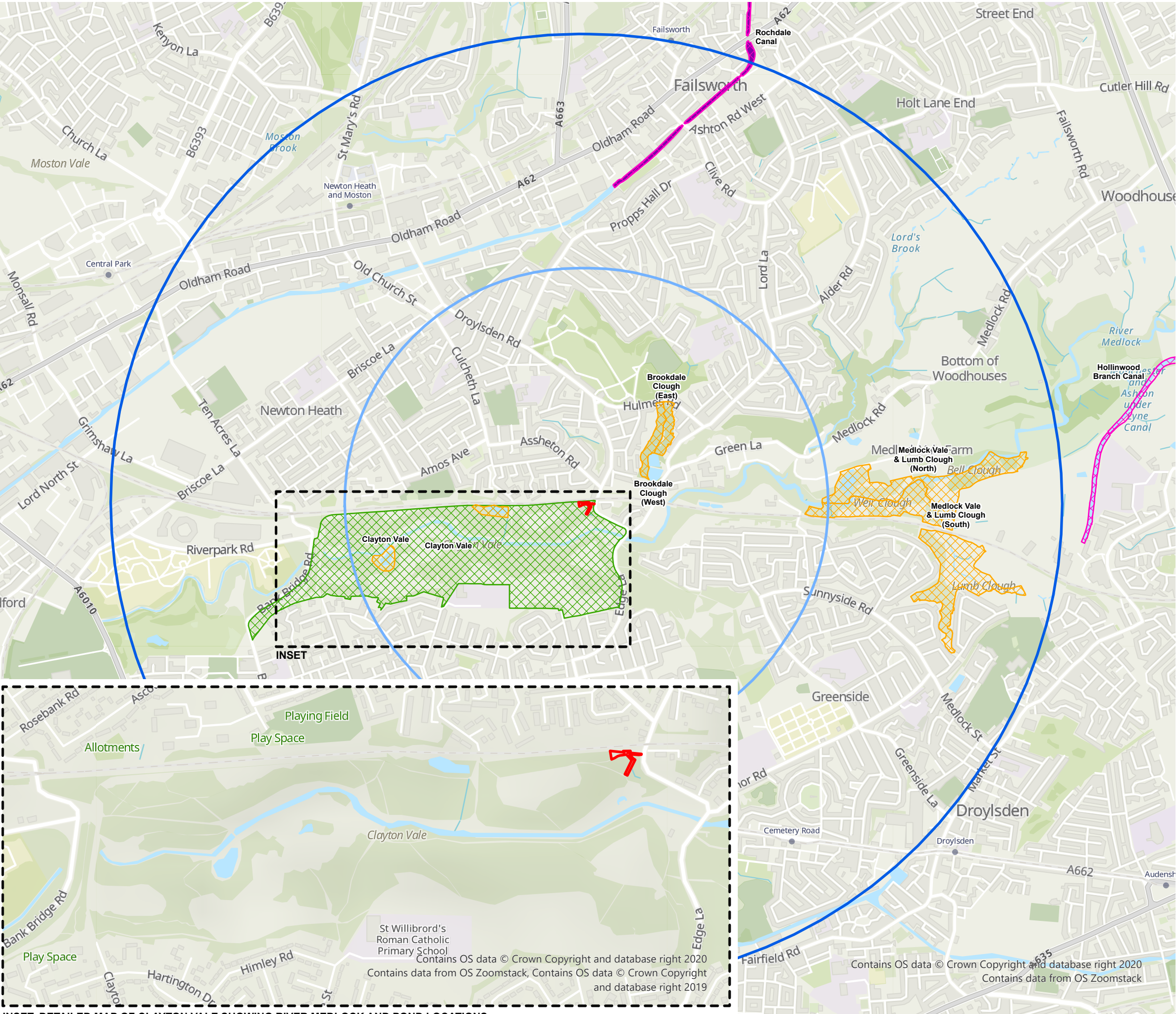
Project Details	WIE15642-174: Clayton Vale Park
Figure Title	Habitat Features Plan
Figure Ref	WIE15642-174-GIS-EC-1C
Date	February 2022
File Location	\\s-r1l-wiel-projects\wie15642\174\gis\ec

Reference:	151667-TSA-00-TRU-REP-W-LP-000052
Version:	P01
Date:	25-2-2022

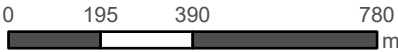
W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

FIGURE 2: DESIGNATED SITES PLAN

- Site Boundary
- 1km Search Area
- 2km Search Area
- Local Nature Reserves
- Sites of Special Scientific Interest
- Special Areas of Conservation
- Non-Statutory Sites
- Waterbodies

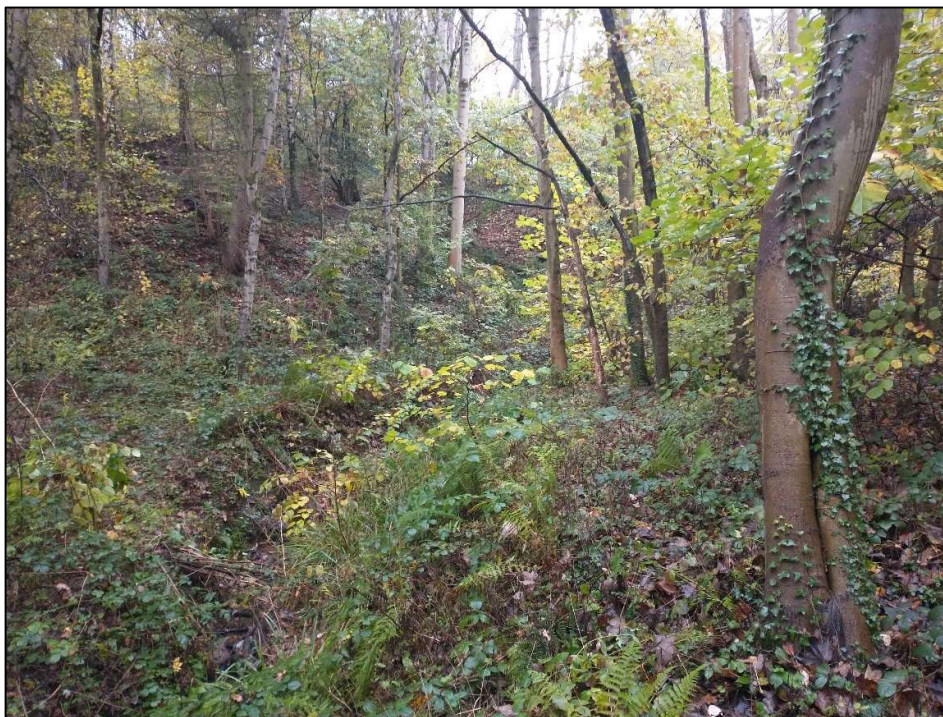


INSET: DETAILED MAP OF CLAYTON VALE SHOWING RIVER MEDLOCK AND POND LOCATIONS



Project Details	WIE15642-174: Clayton Vale Park
Figure Title	Designated Sites Plan
Figure Ref	WIE15642-174-GIS-EC-2A
Date	January 2022
File Location	\\s-rl-wiel-projects\wie15642\174\gis\ec\

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

PHOTOGRAPHS**Photograph 1.** Woodland at OSNGR SJ 88935 99573.**Photograph 2.** Woodland at OSNGR SJ 88986 99521.

Reference:	151667-TSA-00-TRU-REP-W-LP-000052
Version:	P01
Date:	25-2-2022

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report



Photograph 3. Grassland at OSNGR SJ 88893 99479.



Photograph 4. Grassland at OSNGR SJ 89071 99475.

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report



Photograph 5. Wetter area within grassland at OSNGR SJ 88933 99494 (**Target Note 7**).



Photograph 6. Pond at OSNGR SJ 88919 99483.

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report



Photograph 7. Watercourse at OSNGR SJ 88947 99550. Japanese knotweed present (indicated by red arrows) (**Target Note 4**).



Photograph 8. *Arrhenatherum* neutral grassland with scattered scrub and trees within railway corridor (looking east from SJ 88937 99599).

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report



Photograph 9. *Arrhenatherum* neutral grassland with scattered scrub and trees within railway corridor (looking west from OSNGR SJ 88964 99606).



Photograph 10. Japanese knotweed at OSNGR SJ 88928 99543 (indicated by red arrow) (Target Note 2).

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report



Photograph 11. Japanese knotweed at OSNGR SJ 88917 99557 (indicated by red arrow) (Target Note 3).



Photograph 12. Himalayan balsam at OSNGR SJ 88929 99533 (the plant is the dead, pale coloured, stalks indicated by the red arrow) (Target Note 1).

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report



Photograph 13. Himalayan balsam at OSNGR SJ 88910 99593 (indicated by the red arrow) (Target Note 5).



Photograph 14. Himalayan balsam at OSNGR SJ 88921 99585 (the plant is the dead, pale coloured, stalks indicated by the red arrow) (Target Note 6).

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

APPENDIX A HABITAT CONDITION ASSESSMENT**Habitat Condition Assessment****Woodland**

Condition Assessment Criteria					
	Indicator	Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicator
1	Age distribution of trees ¹	Three age classes present	Two age classes present	One age class present	2
2	Wild, domestic and feral herbivore damage	No significant browsing damage evident in woodland ²	Evidence of significant browsing pressure is present in 40% or less of whole woodland	Evidence of significant browsing pressure is present in 40% or more of whole woodland	3
3	Invasive plant species ³	No invasive species present in woodland	Rhododendron or laurel not present, other invasive species < 10% cover	Rhododendron or laurel present, or other invasive species > 10% cover	2
4	Number of native tree species	Five or more native tree or shrub species found across woodland parcel	Three to four native tree or shrub species found across woodland parcel	None to two native tree or shrub species across woodland parcel	3
5	Cover of native tree and shrub species	> 80% of canopy trees and >80% of understory shrubs are native	50-80% of canopy trees and 50-80% of understory shrubs are native	< 50% of canopy trees and <50% of understory shrubs are native	3
6	Open space within woodland ⁴	10 – 20% of woodland has areas of temporary open space, unless woodland is <10ha in which case lower threshold of 10% does not apply	21- 40% of woodland has areas of temporary open space	More than 40% of woodland has areas of temporary open space	3
7	Woodland regeneration ⁵	All three classes present in woodland; trees 4-7cm dbh, saplings and seedlings or advanced coppice regrowth	One or two classes only present in woodland	No classes or coppice regrowth present in woodland	1
8	Tree health	Tree mortality less than 10%, no pests or diseases and no crown dieback	11% to 25% mortality and/or crown dieback or low risk pest or disease present	Greater than 25% tree mortality and or any high risk pest or disease present	3
9	Vegetation and ground flora	Ancient woodland flora indicators present	Recognisable NVC plant community present	No recognisable NVC community	1
10	Woodland vertical structure ⁶	Three or more storeys across all survey plots or a complex woodland	Two storeys across all survey plots	One or less storey across all survey plots	1
11	Veteran trees ⁷	Two or more veteran trees per hectare	One veteran tree per hectare	No veteran trees present in woodland	1

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

Condition Assessment Criteria					
Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicator
12	Amount of deadwood	50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps	Between 25% and 50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps	Less than 25% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps	1
13	Woodland disturbance ⁸	No nutrient enrichment or damaged ground evident	Less than 1 hectare in total of nutrient enrichment across woodland area and/or less than 20% of woodland area has damaged ground	More than 1 hectare of nutrient enrichment and/or more than 20% of woodland area has damaged ground	1
Total score (out of a possible 39)					
Condition Assessment Result				Condition Assessment Score	
Total score >32 (33 to 39)				Good (3)	
Total score 26 to 32				Moderate (2)	
Total score <26 (13 to 25)				Poor (1)	

Neutral grassland

Condition Assessment Criteria	
1	The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward. Fail – indicator species not prevalent.
2	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed. Fail – majority area clearly mowed regularly.
3	Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens. Pass.
4	Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%. Pass.
5	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of undesirable species ¹ and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. Fail – Himalayan balsam occasionally present in rank areas; undesirable species present >5% cover; compaction from footfall throughout.
Condition Assessment Result	Condition Assessment Score
Passes 5 of 5 criteria	Good (3)
Passes 3 or 4 of 5 criteria	Moderate (2)
Passes 0, 1 or 2 of 5 criteria	Poor (1)

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

Pond

Condition Assessment Criteria	
CORE CRITERIA - applicable to all ponds (woodland ¹ and non-woodland):	
1	The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock. Fail – water turbid, filamentous algae present.
2	There is semi-natural habitat (i.e. moderate distinctiveness or above) for at least 10 m from the pond edge. Pass.
3	Less than 10% of the pond is covered with duckweed or filamentous algae. Pass.
4	The pond is not artificially connected to other waterbodies, either via streams, ditches or artificial pipework. Not known, but probable pass
5	Pond water levels should be able to fluctuate naturally throughout the year. No obvious dams, pumps or pipework. Not known but probable pass.
6	There is an absence of non-native plant and animal species ² . Fail – curled water weed frequent.
7	The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities. Not known.
ADDITIONAL CRITERIA - only applicable to non-woodland ponds:	
8	In non-woodland ponds, plants, be they emergent, submerged or floating (excluding duckweeds) ³ , should cover at least 50% of the pond area that is less than 3 m deep. Fail – plant cover less than 50%.
9	The surface of non-woodland ponds is no more than 50% shaded by woody bankside species. Pass.
Condition Assessment Result	Condition Assessment Score
If 7 criteria assessed (woodland ponds):	
Passes 7 of 7 criteria	Good (3)
Passes 5 or 6 of 7 criteria	Moderate (2)
Passes 0, 1, 2, 3 or 4 of 7 criteria	Poor (1)
If 9 criteria assessed (non-woodland ponds):	
Passes 9 of 9 criteria	Good (3)
Passes 6, 7 or 8 of 9	Moderate (2)
Passes 0, 1, 2, 3, 4 or 5 of 9 criteria	Poor (1)
Footnote 1 - A woodland pond will be surrounded on all sides by woodland habitat.	

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

APPENDIX B GREAT CRESTED NEWT HABITAT SUITABILITY INDEX CALCULATION**Great Crested Newt Habitat Suitability Index Calculation²² (for pond within the Survey area)**

Factor 1. Geographic location = 1

Factor 2. Pond area = 0.2

Factor 3. Permanence = 0.5

Factor 4. Water quality = 0.67

Factor 5. Shade = 1

Factor 6. Waterfowl = 1

Factor 7. Fish = 0.67

Factor 8. Pond count = 0.9

Factor 9. Terrestrial habitat = 0.67

Factor 10. Macrophytes = 0.5

Score = 0.5874 'Below Average'

²² See 'ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index' for details of calculation formula.

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

APPENDIX C LEGISLATION**Legislation relating to European Protected Species (e.g. bats, otter, great crested newt)**

European Protected Species and their resting places (e.g. bat roosts) are protected under the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way (CROW) Act 2000, and the Conservation of Habitats and Species Regulations 2017 (as amended).

The Habitats Regulations 2017 (as amended) and WCA 1981 (as amended) are pieces of domestic legislation that transpose the land and marine aspects of the Habitats Directive (Council Directive 92/43/EEC) and certain elements of the Birds Directive (Council Directive 2009/147/EC) (known as the Nature Directives). Species of European (International) conservation importance are listed on Annexes II, IV and V of the Habitats Directive and Annex I of the Birds Directive. The Habitats Regulations 2017 were amended in 2018 and again on 1st January 2021 when the Conservation of Habitats and Species (Amendment) EU Exit Regulations 2019 were adopted following the United Kingdom officially leaving the European Union. The Regulations provide for the designation and protection of 'European Sites', the protection of 'European Protected Species' (EPS), and the adaptation of planning and other controls for the protection of European Sites. EPS are listed on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended).

Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to:

- Intentionally or recklessly damage or destroy any structure or place which any wild animal specified in Schedule 5 uses for shelter or protection;
- Intentionally or recklessly disturb any such animal while it is occupying a structure or place which it uses for shelter or protection; or
- Intentionally or recklessly obstruct access to any structure or place which any such animal uses for shelter or protection.
- In addition, under this legislation there are offences relating to sale, possession and control of wild animals listed in Schedule 5.

Under the Conservation of Habitats and Species Regulations 2017 (as amended) it is an offence to:

- Deliberately capture, injure or kill any wild animal listed as a European Protected Species;
- Deliberately disturb wild animals of any such species in such a way as to be likely:
 - to impair their ability:
 - i) to survive, to breed or reproduce, or to rear or nurture their young, or;
 - ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate, or; to affect significantly the local distribution or abundance of the species to which they belong.
- Deliberately take or destroy the eggs of such an animal; or,
- Damage or destroy²³ a breeding site or resting place of such an animal.

²³ Damage or destruction of a breeding site or resting place is an absolute offence under the Conservation of Habitats and Species Regulations 2017 (as amended) (i.e. it does not have to be deliberately / intentional)

Reference:	151667-TSA-00-TRU-REP-W-LP-000052
Version:	P01
Date:	25-2-2022

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

In addition, under this legislation there are offences relating to possession, control sale and exchange of an EPS.

Great crested newt, otter and several species of bat are listed as a Species of Principal Importance (SoPI) under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

Legislation for amphibians (other than great crested newt)

Under the Wildlife and Countryside Act 1981 (as amended) the four widespread amphibian species, smooth newt (*Triturus vulgaris*), palmate newt (*Triturus helveticus*), common toad (*Bufo bufo*) and common frog (*Rana temporaria*) receive limited protection through section 9(5) only which makes selling, offering for sale, possessing or transporting for the purpose of sale (live or dead animal, part or derivative) an offence.

Common toad is listed as a SoPI under Section 41 of the NERC Act 2006.

Legislation relating to reptiles

All native reptile species have some degree of protection in the UK, through section 9(1) and (5) (specified in Schedule 5) of the Wildlife and Countryside Act 1981 (as amended). There are two different levels of protection afforded to reptiles through this legislation according to species and this is described in more detail below.

Protection against killing, injuring and trade

This level of protection under section 9 (parts 1 and 5) applies to the four widespread species of reptile, namely the common lizard (*Zootoca vivipara*), slow-worm (*Anguis fragilis*), grass snake (*Natrix natrix*) and adder (*Viper berus*). Only part of sub-section 9(1) applies, which make it an offence to:

- Intentionally kill or injure; and,
- Sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative).

Grass snake, slow-worm and adder are all listed as SoPI under Section 41 of the NERC Act 2006.

Legislation relating to breeding birds

All birds, their nests and eggs are protected by the Wildlife and Countryside Act 1981 (as amended) and it is an offence, with certain exceptions, to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy the egg of any wild bird; and,
- Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building or is in, on or near a nest with eggs or young; or disturb the dependent young of such a bird.

Reference:	151667-TSA-00-TRU-REP-W-LP-000052
Version:	P01
Date:	25-2-2022

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

Schedule 1 of the Wildlife and Countryside Act 1981 provides further protection for selected species (including peregrine falcon (*Falco peregrinus*), barn owl (*Tyto alba*), little ringed plover (*Charadrius dubius*) and black redstart (*Phoenicurus ochruros*) during the breeding season. If any person intentionally or recklessly disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or disturb dependent young of such a bird. That person shall be guilty of an offence.

A number of bird species are listed as SoPI under Section 41 of the NERC Act 2006.

Legislation relating to badger

Badgers (*Meles meles*) are protected under the Protection of Badgers Act 1992 (as amended) which makes it an offence to:

- Wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so;
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett; and,
- Disturb a badger when it is occupying a sett.

These provisions have implications for construction or preparation works undertaken in the vicinity of an active sett and may be confounded by distance from the sett entrance. Any works resulting in ground penetration, vibration or noise near an identified badger sett entrance/s have the potential to disturb badgers and advice should be sought from a suitably experienced ecologist under such circumstances. If disturbance to an active sett is probable, then a licence may need to be obtained from Natural England before any works commence.

Legislation relating to water vole

The water vole (*Arvicola amphibius*) is fully protected under Section 9 of the Wildlife & Countryside Act 1981 (as amended) through its inclusion in Schedule 5. The legal protection makes it an offence to:

- Intentionally kill, injure or capture or take a water vole;
- Possess or control (live or dead animal, part or derivative);
- Deliberately (intentionally) or recklessly damage, destroy or obstruct access to a breeding site or any structure or place used for shelter or protection by a water vole;
- Deliberately (intentionally) or recklessly disturb a water vole whilst occupying such as structure or place; and,
- Sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative).

Water vole is listed as a SoPI under Section 41 of the NERC Act 2006.

Legislation relating to invasive plant species

Several non-native invasive plant species such as Himalayan balsam (*Impatiens glandulifera*), giant hogweed (*Heracleum mantegazzianum*), Japanese rose (*Rosa rugosa*), variegated yellow archangel (*Lamium galeobdolon*), rhododendron (*Rhododendron ponticum*) and Japanese knotweed (*Reynoutria japonica*) are listed under Schedule 9 of the Wildlife and Countryside Act,

W1 Manchester Victoria to Stalybridge – Clayton Vale Park Ecological Constraints Report

1981 (as amended), which makes it an offence to ‘...plant or otherwise cause the species to grow in the wild’. This includes spreading or transferring contaminated soil from one area to another.

Estate Managers and landowners have a duty to pro-actively treat knotweed outbreaks. Under the Natural Environment and Rural Communities Act 2006 (NERC), subsection 14ZA (1), makes it is an offence to sell, offer or expose for sale, or to have in one’s possession or transport for the purpose of sale, any Schedule 9 animal or plant or anything from which such an animal or plant can be propagated, including rhizomes of Japanese knotweed. Under subsection 14ZA (2) it is also an offence to publish or cause to be published any advertisement for the purchase or sale of these animals and plants.

The Environmental Protection Act 1990 (EPA 1990) contains a number of legal provisions concerning controlled waste. Any Japanese knotweed contaminated soil or plant material that is intended for discard is likely to be classified as controlled waste.

The Environmental Protection (Duty of Care) regulations 1991 also imposes a ‘duty of care’ on persons concerned with controlled waste, which includes any materials incorporating Japanese knotweed including soil, grass cuttings, general wastes and ash arising from the burning of knotweed. The duty applies to any person, who produces, imports, carries, keeps, treats or disposes of controlled waste. Failure to appropriately dispose of any material containing Japanese knotweed may lead to prosecution under Section 33 and 34 of the EPA 1990 and Section 14 (2) of the Wildlife & Countryside Act 1981 (as amended).

If knotweed stands are to be treated with herbicides, The Control of Pesticides Regulations (1986) applies. These regulations require any person who uses a pesticide to take all reasonable precautions to protect the health of human beings, creatures and plants, safeguard the environment and in particular avoid the pollution of water. If pesticides are to be used in or near to a watercourse, the Environment Agency should be contacted, and approval must be sought (application to use herbicides in or near water).

Waste leaving the site must be handled responsibly and in accordance with the law at all stages between its production and final recovery or disposal. Waste must be transferred to an authorised person, who is either a registered waste carrier or exempted from registration by the Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991.

Additional legislation regarding the transport of Japanese knotweed contaminated materials is covered by the Hazardous Waste Regulations 2005 (HWR 2005). This contains provisions about the handling and movement of hazardous waste. Consignment notes must be completed when any hazardous waste is transferred, which includes details about the hazardous waste properties and any handling requirements. Untreated Japanese knotweed is not classed as hazardous waste, but material containing knotweed which has been treated with certain herbicides, may be classified as hazardous waste.

If any waste soil or knotweed is sent for landfill either before or after treatment, it must go to a landfill that is authorised to receive it.



Network Rail
Infrastructure Projects – Northern Programmes

Square One
4 Travis Street
Manchester
M1 2NY

www.networkrail.co.uk

This document is the property of Network Rail Infrastructure Limited. It shall not be reproduced in whole or part nor disclosed to a third party without the written permission of Network Rail Infrastructure Limited, Kings Place, 90 York Way, London, N1 9AG.
Copyright 2017 Network Rail Infrastructure Limited. All rights reserved.