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**YOUR HOUSING GROUP LTD**

**TEN ACRES LANE, NEWTON HEATH**

**INFORMATION TO INFORM A HABITATS REGULATIONS ASSESSMENT**

**JANUARY 2021**

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**JANUARY 2021**

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| <b>DRAWINGS</b> | <b>TITLE</b>                                               | <b>SCALE</b> |
|-----------------|------------------------------------------------------------|--------------|
| LD10162/001     | Location of Statutory and Non-Statutory Conservation Sites | 1:40,000@A3  |

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## EXECUTIVE SUMMARY

This report is provided to inform a Habitats Regulations Assessment (HRA) for the remediation of a predominantly woodland and grassland site prior to the application for a residential housing development. The remediation phase is being considered via a specific planning application covering that element only with the subsequent residential scheme being considered separately. The Project in question is therefore the remediation of the currently contaminated site.

The site is located adjacent to (within 5m of) the Rochdale Canal. The Canal is designated as a Special Area for Conservation (SAC) some 1.2km upstream and to the north east of the site. The SAC supports the nationally scarce Annex II pondweed, floating water-plantain *Luronium natans*. A survey of the Canal section adjacent to the site undertaken during 2020 did not record the presence of *Luronium* and it is considered to be absent in this reach.

The Project will involve the loss of vegetated habitat to allow for remediation. None of the habitat losses will directly impact the SAC given the separation distance. This report considers whether there is any reasonable likelihood of indirect effects through hydrological connectivity and contaminated run-off impacting the SAC and/or its population of *Luronium*.

The report considers standard protective working practices which will govern the remediation proposals, to be informed via a Construction Environmental Management Plan. It is accepted that there is an opportunity for the proposed remediation works to liberate contaminants at/near soil surface, and given that the Site lies at least in part in an elevated position relative to the Canal, some of these contaminants may enter the Canal. The opportunity for contamination pathways reaching the upstream SAC are limited, however these cannot be discounted in the absence of mitigation and hence an Appropriate Assessment is required.

The Assessment concludes that with mitigation in place, there will be no adverse impact on the integrity of the Rochdale Canal SAC resulting from the remediation of the site. Standard mitigation measures to ensure that contaminants do not enter the Canal will be sufficient to ensure no adverse effect to the SAC. As the mitigation control measures will ensure no

input of contaminants there will be no contribution from the remediation works to any wider in-combination effects.

## **1 INTRODUCTION**

### **1.1 Terms of Reference**

- 1.1.1 Wardell Armstrong LLP (WA) was appointed by Your Housing Group Ltd to provide information to enable a Habitats Regulations Assessment (HRA) for the remediation of an allocated residential site in proximity to the Rochdale Canal (hereafter referred to as the Project). The Site is located off Ten Acres Lane and Briscoe Lane in Newton Heath, Manchester.
- 1.1.2 The objective of the assessment is to identify any aspects of the Project that would cause 'likely significant effects' on the interest features of Rochdale Canal SAC which lies c.1.2km upstream and to the north east of the site. In the event that likely significant effects cannot be screened out, the report discusses the potential impact of such effects and what mitigation is necessary to ensure such impacts can be adequately controlled, such that the integrity of the SAC is maintained and its conservation objectives retained.
- 1.1.3 At the time of writing, no scoping opinion has been received from Greater Manchester Ecology Unit (GMEU) or Natural England.
- 1.1.4 Impacts to non-European protected sites and other receptors are considered in the Ecology chapter of the associated Environmental Impact Assessment.
- 1.1.5 Impact pathways are routes by which a change in activity as a result of the project, can lead to an effect upon a European site. Due to the location and nature of this Project it is considered that only Rochdale Canal SAC could potentially be affected by the Project. This is because the Project is located with potential hydrological connectivity to the SAC, via the Canal and hence could potentially affect the qualifying features. Furthermore, the Project is not directly connected with or necessary to the management of the conservation site or its qualifying features.
- 1.1.6 The recent '*People Over Wind*'<sup>1</sup> case ruling has been considered. In summary, this ruling states mitigation measures cannot be taken into account when considering the screening test for 'likely significant effects,' whereas it was previously standard

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<sup>1</sup> Case C-323/17 People Over Wind & Peter Sweetman v Coillte Teoranta ('People over Wind').

practice that projects which may affect Natura 2000 sites could incorporate suitable mitigation measures at the screening stage.

- 1.1.7 In the absence of mitigation/control measures it is possible that surface water contaminants liberated by the remediation process could enter the Canal, especially given that in places the Site lies above the Canal; and so it is assumed that there is currently an element of natural drainage from the Site to the Canal. Hence it is not possible to rule out Likely Significant Effects, and mitigation and therefore appropriate assessment will be required.

## **1.2 Site Context**

- 1.2.1 The Site covers approximately 19 Hectares (ha) and predominantly comprises semi-natural broad-leaved woodland, dense scrub, and grassland. Previously the site has been used for various industrial process including as a brickworks with two large clay extraction pits, which culminated into two large excavations. These excavations appear to have been subject to landfilling with the Registered Landfill licensed to receive inert, industrial, commercial, and household wastes including demolition waste, foundry sand, industrial non-hazardous waste, slag, and boiler/flue cleanings. As a consequence of its industrial past, the Site is contaminated and requires extensive remediation prior to use as a residential development.
- 1.2.2 The Site is located to the south of the A62, with the Rochdale Canal running adjacent and within c.5m along the northern boundary. Ten Acres Lane is present beyond the western boundary, a residential estate including Briscoe Lane Academy and Day nursery to the south and housing and retail development to the east. The approximate central grid reference for the site is SD 87582 00287.
- 1.2.3 The location of the Site relative to these designated areas is shown on the following plan: 'Location of Natura 2000 Conservation Sites' (Drawing Ref. LD10162.001).

## **1.3 Rochdale Canal SAC**

- 1.3.1 The conservation objectives for the Rochdale Canal SAC are as follows<sup>2</sup>:

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<sup>2</sup> <http://publications.naturalengland.org.uk/publication/5283870555504640>

*With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;*

*Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;*

- *The extent and distribution of the habitats of qualifying species*
- *The structure and function of the habitats of qualifying species*
- *The supporting processes on which the habitats of qualifying species rely*
- *The populations of the qualifying species, and*
- *The distribution of the qualifying species within the site.*

*Qualifying Features:*

*S1831. Luronium natans; floating water-plantain*

- 1.3.2 The Rochdale Canal supports a significant population of floating water-plantain (more than 10,000 individual plants reported to be present), within a botanically diverse aquatic plant community that includes a range of pondweeds *Potamogeton* spp. This population of *Luronium* is representative of the formerly more widespread canal populations of this species within north-west England.
- 1.3.3 *Luronium* is recorded within the Huddersfield Narrow Canal and the Rochdale Canal and is also recorded from other canals which connect with these sites.
- 1.3.4 Whilst the plant appears tolerant of a wide range of mesotrophic and meso-eutrophic water conditions, its localised distribution may be down to its poor competitive ability and where the later stages of succession occur (in mature, well-established habitats), the plant is outcompeted by other, more vigorous species (Ferguson, et al, 1998)<sup>3</sup>.

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<sup>3</sup> Ferguson, C., Briggs, J. and Willby, N. (1998) Floating Water-plantain in Britain – Under-recorded and Overlooked; British Wildlife 9(5) 298-303

- 1.3.5 There is no evidence of particular sensitivity to pollutants with the exception of nitrogenous compounds, which may result in localised eutrophication and competition from other species. Acidification is also cited as being a controlling factor in some of the literature (English Nature, 2003)<sup>4</sup>.

#### 1.4 Project Description

- 1.4.1 The Project will involve the remediation of the Site, which in brief will involve the removal of all woodland, scrub and grassland vegetation followed by excavation of 2-5m of material from the surface, treatment of contamination where necessary, compaction and potentially import of inert materials and soils.
- 1.4.2 The remediation will be subject to a number of controls which are defined in general terms by a Construction Environmental Management Plan (CEMP) which are covered in outline within ES Chapter 5 Construction Management (Wardell Armstrong, 2021) provided as Appendix 3.

#### 1.5 Survey Baseline

- 1.5.1 The Ecological Assessment (TEP, 2020) provided as Appendix 2 reports the following summary of an aquatic plant survey undertaken on the stretch of Rochdale Canal adjacent to the site:

*No floating water plantain Luronium natans was identified during the aquatic flora survey of the adjacent Rochdale Canal. This stretch of the canal is dominated by the non-native invasive species, Nuttall's waterweed. Other species along the canal include common duckweed Lemna minor, many-rooted duckweed Spirodela polyrhiza, curled pondweed Potamogeton crispus, European bur-reed Sparganium emersum, needle spike-rush Eleocharis acicularis and a smooth stonewort Nitella sp.*

*The non-native invasive species, New Zealand pigmyweed Crassula helmsii, was also recorded during the aquatic flora survey, in one location only.*

- 1.5.2 Given the absence of *Luronium* from the section of Canal adjacent to the Site perimeter, any impacts to this species, and thus to the SAC are limited to potential

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<sup>4</sup> Lansdown RV & Wade PM (2003). Ecology of the Floating Water-plantain, *Luronium natans*. Conserving Natura 2000 Rivers Ecology Series No. 9. English Nature, Peterborough.

indirect effects as a result of a reduction in water quality/contamination impacting populations located within the core SAC area.

## **2 LEGISLATION**

- 2.1.1 As a result of the UK having left the European Union, the need for an assessment of impacts on SPA and SAC sites previously set out within Article 6 of the EC Habitats Directive 1992, remains; however this process is now relevant to the Conservation of Habitats and Species Regulations 2017 (as amended) and not the Directive.
- 2.1.2 Plans and Projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the site(s) in question. Plans and Projects with predicted adverse impacts on European sites may still be permitted if there are no alternatives to them and there are Imperative Reasons of Overriding Public Interest (IROPI) as to why they should go ahead. In such cases, compensation would be necessary to ensure the overall integrity of the site network.
- 2.1.3 In order to ascertain whether or not site integrity will be affected, an assessment should be undertaken of the Plan or Project in question. While the competent authority (e.g. Manchester City Council) makes the formal decision as to whether adverse effects will result, they are entitled to request the applicant to produce necessary information to assist them. That is the purpose of this report.

- **Box 1. The legislative basis for Appropriate Assessment**

**Conservation of Habitats and Species Regulations 2017 (as amended)**

The Regulations state that:

24.—(1) Where it appears to the appropriate nature conservation body that a notice of a proposal under section 28E(1)(a) of the WCA 1981 relates to an operation which is or forms part of a plan or project which—

(a) is likely to have a significant effect on a European site (either alone or in combination with other plans or projects), and

(b) is not directly connected with or necessary to the management of that site, it must make an appropriate assessment of the implications for that site in view of that site's conservation objectives.

(2) In the light of the conclusions of the assessment, it may give consent for the operation only after having ascertained that the plan or project will not adversely affect the integrity of the site.

2.1.4 Over the years the phrase 'Habitats Regulations Assessment' (HRA) has come into wide currency to describe the overall process set out in the Conservation of Habitats and Species Regulations from screening through to Imperative Reasons of Overriding Public Interest (IROPI). This has arisen in order to distinguish the process from the individual stage described in the law as an 'Appropriate Assessment'. Throughout this report we use the term Habitat Regulations Assessment for the overall process and restrict the use of Appropriate Assessment to the specific stage of that name.

### 3 HRA METHODOLOGY

#### 3.1 General Approach

- 3.1.1 HRA of projects can be broken down into three discrete stages, each of which effectively culminates in a test. The stages are sequential, and it is only necessary to progress to the following stage if a test is failed. The stages are:

##### Stage 1 – Likely Significant Effect Test

- 3.1.2 This is essentially a risk assessment, typically utilising existing data, records, and specialist knowledge. The purpose of the test is to decide whether ‘full’ Appropriate Assessment is required. The essential question is:

*“Is the project, either alone or in combination with other relevant projects and plans, likely to result in a significant [adverse] effect upon European sites?”*

- 3.1.3 If it can be demonstrated that significant effects are unlikely, no further assessment is required. In this case, likely significant effects cannot be ruled out given the proximity of the Canal and the potential

##### Stage 2 – Appropriate Assessment

- 3.1.4 In this case as it cannot be satisfactorily demonstrated that significant effects are unlikely, an “Appropriate Assessment” is provided. This is focussed entirely upon the designated interest features of the European sites in question. The essential question here is:

*“Will the project, either alone or in combination with other relevant projects and plans, actually result in an adverse effect upon the integrity of any European sites, without mitigation?”*

- 3.1.5 If it is concluded that adverse effects will occur, measures will be required to either avoid the impact in the first place, or to mitigate the ecological effect to such an extent that it is no longer significant. Note that, unlike standard Ecological Impact Assessment, compensation for adverse effects (i.e. creation of alternative habitat) is not permitted at the Appropriate Assessment stage.

##### Stage 3 – Imperative Reasons of Overriding Public Interest (IROPI) Test

3.1.6 If a project will have a significant adverse effect upon a European site, and this effect cannot be either avoided or mitigated, the project cannot proceed unless it passes the IROPI test. In order to pass the test it must be objectively concluded that no alternative solutions exist. The project must be referred to Secretary of State on the grounds that there are Imperative Reasons of Overriding Public Interest as to why the plan should nonetheless proceed.

3.1.7 This report deals with the first stage of Habitat Regulations Assessment – the Likely Significant Effect Test.

### **3.2 Note Regarding in Combination Assessment**

3.2.1 It is a requirement of the Regulations that the impacts of any land use plan being assessed are not considered in isolation but in combination with other plans and projects that may also affect the European site(s) in question. In this case, an in-combination assessment has not been undertaken, given the separation distance, and the nugatory contribution of the Project towards any wider impact along with other developments (with mitigation in place). In this regard it is considered that once basic pollution control measures are adopted there will be no contamination of the Canal.

## **4 IMPACT PATHWAYS**

### **4.1 Definition and Purpose**

4.1.1 In carrying out an HRA it is important to determine the various ways in which the project in question can impact on European sites by following the pathways along which development can be connected with those sites, in some cases many kilometres distance. Briefly defined, pathways are routes by which a change in activity associated with a development can lead to an effect upon a European site.

### **4.2 Impacts from Contaminated Runoff**

#### *Nature of Contamination*

4.2.1 The Ground Conditions chapter of the Environmental Statement confirms that several areas of potential hydrocarbon contamination and possible free product were identified on site. Other potential contaminants include asbestos containing materials, acrid odours, hydrocarbon odours and sewage / sulphur odours.

4.2.2 The chapter also confirms that elevated concentrations of total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAH) compounds, metals, polychlorinated biphenyls (PCB), volatile organic compounds (VOC), semi-volatile organic compounds (SVOC) and other inorganic contaminants were recorded that exceeded the available screening values for the residential with plant uptake land use scenario.

#### *Baseline Pathways*

4.2.3 Chapter 11 of the Environmental Statement, covers Hydraulic Impact, including Flood Risk. This chapter (Alan Johnston Partnership, 2020) confirms that the Canal towpath level is typically around 1.5m – 3.0m below the adjacent site levels. This can be seen in the photograph below (Plate 1) courtesy of Alan Johnston Partnership LLP<sup>5</sup>.

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<sup>5</sup> Flood Risk Assessment & Drainage Strategy Report, Alan Johnston, and Partners LLP (2020) Report Ref: TAM-AJP-ZZ-XX-RP-C-3000.



**Plate 1:** Showing the elevated level of the Site relative to the Canal.

4.2.4 The Flood Risk Assessment and Drainage Strategy Report (Alan Johnston and Partners LLP, 2020) also confirms via CCTV survey of the existing public and private sewers, that there are no existing public or private sewers located within the site and that there are no existing outfalls from the site to the Rochdale Canal.

4.2.5 It is therefore assumed that any mobilisation of contaminated runoff from the site to the Canal in the baseline situation will be via by overland flow and not via piped drainage connections. The Phase II Interpretative Geo-Environmental Report (Wardell Armstrong, 2021) reports laboratory testing of the water for contaminants and reports that:

*Surface water samples were recovered from 3 No. locations (SW01 to SW03) within the Rochdale Canal to the north of the site. There were some slightly elevated PAH concentrations, however, these were mostly at the same order of magnitude as the relevant Water Quality Standards value. When comparing the results to the groundwater results, there is no evidence to suggest that organic contaminants on*

*site are migrating northward toward the canal within shallow / perched groundwater.*

4.2.6 Consequently, it is unlikely that significant ‘baseline’ contamination of the Canal water is present, and that any groundwater connection exists. However, it is feasible that longer term accumulation of contaminants within sediments arising from both diffuse (baseline) contamination and remediation could marginally impact the SAC.

#### *Pathways During Remediation*

4.2.7 The remediation process as described in the Outline Remediation Strategy<sup>6</sup> (Wardell Armstrong, 2021) will include the following elements:

- in-situ turnover of the top 2-3m of made ground across the entire site with removal of any deleterious, oversized, and contaminated materials that could pose an unacceptable risk to those identified receptors for the site.
- Limited removal of deeper contamination (say to 5m depth) in certain ‘hot spot’ areas where shallow contaminated perched waters are indicated.
- Over-dig for some areas of deeper made ground (~ 5m depth) where mostly “inert” materials have been encountered to allow for re-compaction as engineered fill or for re-use elsewhere on the site.
- Possible dewatering / shallow perched groundwater treatment with the control / management of leachate / perched waters during earthworks and disposal of any treated water.
- Possible installation of a lined and bunded water treatment area to facilitate the treatment of any surface water which will require discharge from the site. A leachate collection system may be required for the south western part of the site where shallow perched waters are indicated to be present.
- Importation of inert clean cover soil material for gardens, soft landscaping etc. as well as importation of inert and geotechnically suitable material, if required.

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<sup>6</sup> Wardell Armstrong. Land at Ten Acres Lane, Newton Heath Outline / Preliminary Remediation Strategy. Letter dated 4<sup>th</sup> December 2020 to Your Housing Group Ltd.

- 4.2.8 Given that the site lies above the Canal and that the remediation process will involve removal of all the existing vegetation, it is possible that contaminated surface waters and silt-laden runoff could flow into the Canal, in particular during/following periods of heavy rainfall. As the Canal has limited 'flow' and in places may be static, there may be potential pathways through gradual movement of suspended solids and potentially via boat traffic.
- 4.2.9 A second pathway may arise in the absence of mitigation from the dewatering of perched groundwater zones. Such waters are contaminated, and hence careful collection mechanisms will need to be in place to ensure no mixing with surface waters and/or overtopping of bunded areas leading to flows into the Canal.
- 4.2.10 In addition to the pathways associated with the liberation of contaminated soils/waters already present on Site there is some potential for a contamination pathway arising from spillage of fuel or chemicals used during remediation. In the absence of mitigation, this would introduce new contaminants to the soil which could also flow into the Canal and potentially impact upon the SAC

#### *Proposed Drainage*

- 4.2.11 The FRA report states that *'it is envisaged that the surface water runoff would discharge into the surrounding public combined water sewers and not to the Rochdale Canal'*. It is therefore the intention for all site drainage to be routed into the sewer network and that this mechanism will be in place as soon as is practicably possible following the initial phases of remediation such that surface waters can be adequately controlled.

### **4.3 Mitigation Measures**

- 4.3.1 Mitigation is required to ensure that the likely significant effects which cannot be ruled out in the absence of mitigation i.e. contaminated runoff influencing the viability of communities of *Luronium* supported by the SAC are adequately controlled. In this case the measures are proposed in an outline (see Appendix 3) and include several industry standard measures.

4.3.2 All mitigation measures will be compliant with the appropriate guidelines, especially CIRIA (Masters-Williams, 2001) and may include (but are not limited to) the following:

- Site access points being regularly cleaned to prevent the build-up of dust and mud.
- The control of earth movement to reduce the risk of silt combining with the site runoff.
- Properly contained wheel wash facilities (where required) to isolate sediment rich runoff.
- The installation of cut-off ditches and / or geotextile silt-fences around excavations and stockpiles to prevent the uncontrolled release of sediments from the site.
- The use of perimeter bunds to ensure no surface water flows off site, especially during heavy rainfall conditions.
- The use of sediment traps.
- Localised dewatering or the placement of flow barriers to manage perched groundwater in the made ground.
- The treatment and suitable disposal of any contaminated waters, if required.
- The installation of a lined and bunded water treatment area, settlement tanks or silt busters to facilitate the treatment of any surface water and its subsequent discharge to the existing foul sewer drains (subject to obtaining the appropriate discharge consent).
- If sewer capacity is limited, then silty water could be stored on-site and disposed of at a suitably licensed location.
- A leachate collection system for any areas where shallow contaminated waters are indicated to be present.
- Mitigation measures to prevent any oil and chemical spillages (see fuelling and hazardous liquids section)
- Decommissioning of any deep boreholes that could act as pathways for sensitive receptors.

4.3.3 In order to mitigate the risk of causing pollution through refuelling and the improper storage of hazardous liquids the following mitigation measures could include, but are not limited to the following:

- All fuelling activities and the storage of fuel should take place in one identified area. This area should be located on hardstanding or a lined area and tanks should be in accordance with current legislation and be suitably bunded with drip trays and secure lids. Emergency spill kits including absorbent granules and pads should be kept in case of accidental release.
- Where possible, plant and machinery should have drip trays beneath oil tanks, engines, gearboxes etc. and these should be checked and emptied regularly and correctly disposed of.
- The production of a Pollution Incident Control Plan (PICP) that includes response to spillages of oil. Provisions should be made to contain a serious spill or leak through the use of spill kits, booms, bunding and absorbent material.
- Personnel should be trained on the use of spill kits, where applicable.
- The storage of hazardous liquids greater than 10m from any surface waters or surface water gullies.

4.3.4 Monitoring and compliance should be undertaken by the developer / main contractor to ensure compliance with the CMP /CEMP and these could include, but should not be limited to the following:

- Daily inspections and assessment of environmental performance.
- Checks on equipment to reduce the risk of incidents occurring.
- Sensible monitoring inspections to ensure that daily checks are being undertaken.
- Monthly Environmental Reporting detailing performance and any non-compliance.
- Environmental training and on-going communication methods such as inductions, risk assessment briefings, environmental toolbox talks, environmental briefings, job specification training and project specific information.

- Communication of any audits or inspections, environmental incidents or near misses, any pending or current enforcement action and statistics.
- All activities on-site being subject to a risk assessment.
- Monthly test of the emergency procedures and incident response.

## 5 CONCLUSIONS

- 5.1.1 This assessment considers likely significant effects to the Rochdale Canal SAC, which is designated due to its population of floating water plantain. Effects considered are those associated with remediation of the Site, namely the possible liberation and flow of contaminants into the Canal and the spillage of contaminants brought onto site by vehicles during the remediation process.
- 5.1.2 The assessment considers that in the absence of mitigation, likely significant effects to the SAC cannot be discounted. This is because of the negative effects such contamination may have on *Luronium*. The appropriate assessment considers the influence of mitigation on the likelihood of contamination pathways. Protective measures are standard and proposed via a CEMP which will be finalised by the appointed remediation contractors in due course.
- 5.1.3 The Assessment concludes that with mitigation in place, there will be no adverse impact on the integrity of the Rochdale Canal SAC resulting from the remediation of the site. Standard mitigation measures to ensure that contaminants do not enter the Canal will be sufficient to ensure no adverse effect to the SAC. As the mitigation control measures will ensure no input of contaminants there will be no contribution from the remediation works to any wider in-combination impact. The Assessment can therefore conclude at 'Stage 2' (Appropriate Assessment).

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## 6 REFERENCES

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## **APPENDICIES**

## **APPENDIX 1**

### **Legislation and Policy Summary**

## Appendix 1 – Legislation and Policy Summary

### *Legislation for Habitats/Sites*

| Designated Site/Habitat                     | Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ramsar Sites                                | Ramsar Sites are wetlands of international importance designated following The Ramsar Convention. RAMSAR sites have the same level of protection as SSSIs under the Wildlife and Countryside Act 1981 (as amended).                                                                                                                                                                                                                                                   |
| SPA (Special Protection Areas)              | SPAs are classified in accordance with Article 4 of the EC Directive on the Conservation of Wild Birds (79/409/EEC), the Birds Directive. They are they seek to protect the habitats of rare and vulnerable birds, listed in Annex I of the Birds Directive, and for regularly occurring migratory species. The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010 implement the Birds Directive in the UK. |
| SAC (Special Areas for Conservation)        | SACs are strictly protected areas which represent typical European Union of habitats and (non-bird) species listed in Annexes I and II of the EC Habitats Directive. The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010 implement the Habitats Directive in the UK.                                                                                                                                     |
| SSSI (Sites of Special Scientific Interest) | SSSIs protect the best examples of the UK's flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were renotified under the Wildlife and Countryside Act 1981 (as amended). Modified provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000.                                                               |
| NNR (National Nature Reserves)              | NNRs are examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. NNRs are declared by the statutory country conservation agencies under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981 (as amended). Legal protection of NNRs is provided under The Wildlife and Countryside Act 1981 (as amended).                                                 |

| Designated Site/Habitat     | Status                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hedgerows                   | All hedgerows are protected by the Hedgerows Regulations 1997, under which it is an offence to remove or destroy certain hedgerows without planning consent or permission from the Local Planning Authority. These regulations do not apply to any hedgerow within the curtilage of, or marking the boundary of the curtilage of, a dwelling house. |
| LNR (Local Nature Reserves) | Designated by the National Parks and Access to the Countryside Act 1949, LNRs may be declared for nature conservation by local authorities after consultation with the relevant statutory nature conservation agency. Legal protection of LNRs is provided under The Wildlife and Countryside Act 1981 (as amended).                                |

### *Legislation for Species*

| Species                                                                                                                                                         | Legal Status                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>European Legislation</i>                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Creeping Marshwort, Early Gentian, Fen Orchid, Floating-leaved Water Plantain, Killaney Fern, Lady's Slipper, Shore Dock, Slender Naiad, Yellow Marsh Saxifrage | Under the Conservation of Habitats and Species Regulations 2010 (and as amended), it is illegal to deliberately pick, collect, uproot, or destroy any such species.                                                                                                                                                                                                                                                  |
| Bats, Dormouse, Otter, Wild Cat, Great Crested Newt, Natterjack Toad, Sand Lizard, Smooth Snake, Large Blue Butterfly                                           | <p>These animals and their breeding sites or resting places are protected under Regulation 41 of the Conservation of Habitats and Species Regulations 2010 (and as amended), which makes it illegal to:</p> <ul style="list-style-type: none"> <li>Deliberately capture, injure, or kill any such animal or to deliberately take or destroy their eggs;</li> <li>Deliberately disturb such an animal; and</li> </ul> |

| Species                                                                                  | Legal Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                          | <ul style="list-style-type: none"> <li>• Damage or destroy a breeding site or resting place of such an animal.</li> </ul> <p>European Protected Species (EPS) licenses can be granted by Natural England in respect of development to permit activities that would otherwise be unlawful under the Conservation Regulations, providing that the following 3 tests (set out in the EC Habitats Directive) are passed, namely:</p> <ul style="list-style-type: none"> <li>• The development is for reasons of overriding public interest;</li> <li>• There is no satisfactory alternative; and</li> <li>• The favourable conservation status of the species concerned will be maintained and/or enhanced.</li> </ul> <p>Under Regulation 9(5) of the Conservation Regulations, Planning Authorities have a duty to 'have regard to the requirements of the EC Habitats Directive' i.e. LPA's must consider the above 3 'tests' when determining whether Planning Permission should be granted for developments likely to cause an offence under the Conservation Regulations.</p> |
| <i>Domestic (UK) Legislations</i>                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Bats, Dormouse, Great Crested Newt, Heath FriTillary, High Brown FriTillary, Large Blue, | These animals receive full protection under the Wildlife and Countryside Act 1981 (and as amended), which makes it illegal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| Species                                                                                                                          | Legal Status                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Marsh FriTillary, Natterjack Toad, Pine Martin, Otter, Red Squirrel, Sand Lizard, Smooth Snake, Swallowtail, Water Vole, Wildcat | <p>(subject to certain exceptions) to:</p> <ul style="list-style-type: none"> <li>Intentionally kill, injure, or take any such animal;</li> <li>Intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any such animal; and</li> <li>Intentionally or recklessly disturb such animals while they occupy a place used for shelter or protection.</li> </ul> |
| Adder, Common Lizard, Grass Snake, Slow Worm, White-clawed Crayfish                                                              | These animals receive partial protection under The Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which provide protection against intentional killing or injury of any such animal.                                                                                                                                                                     |
| Nesting Birds                                                                                                                    | <p>All wild birds (as defined by the act) are protected under the Wildlife and Countryside Act 1981 (and as amended), which makes it illegal (subject to exceptions) to:</p> <ul style="list-style-type: none"> <li>Intentionally kill, injure, or take any wild bird;</li> <li>Take, damage, or destroy the nest (whilst being built or in use) or eggs of any wild bird.</li> </ul>                   |
| WCA Schedule 1 listed Birds                                                                                                      | <p>Additional protection is provided to birds listed on Schedule 1 of the Wildlife and Countryside Act 1981 (and as amended). In addition to the offences detailed above relating to all wild birds, it is illegal to:</p> <ul style="list-style-type: none"> <li>Intentionally or recklessly disturb any bird listed on Schedule 1, or their dependent young while nesting.</li> </ul>                 |
| Badgers                                                                                                                          | <p>The Protection of Badgers Act 1992 makes it illegal to wilfully kill or injure a Badger or attempt to do so and to interfere with a Badger sett intentionally, or recklessly. This includes:</p> <ul style="list-style-type: none"> <li>damaging or destroying an active sett;</li> </ul>                                                                                                            |

| Species                                                    | Legal Status                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                            | <ul style="list-style-type: none"> <li>obstructing access to a sett; and</li> <li>disturbing a Badger while it is occupying a sett.</li> </ul> <p>Licences can be granted to permit sett closure and/or disturbance between July and November inclusive (i.e. outside the sow pregnancy/birth period).</p>                                                                                           |
| Wild Mammals                                               | The Wild Mammals (Protection) Act 1996 provides legal protection to all wild mammals (as defined by the act) against the following actions: mutilate, kick, beat, nail, or otherwise impale, stab, burn, stone, drown, crush, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.                                                                                       |
| <i>Invasive Species</i>                                    |                                                                                                                                                                                                                                                                                                                                                                                                      |
| WCA Schedule 9 listed animals (Part 1) and plants (part 2) | <p>Certain species of plants and animals that do not naturally occur in Great Britain have become established in the wild and represent a threat to the natural fauna and flora. Section 14 of the Wildlife &amp; Countryside Act prohibits the release of any animal species that are:</p> <p><i>“not ordinarily resident in and is not a regular visitor to Great Britain in a wild state”</i></p> |

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## Policy Summary

Section 40 of the Natural Environment and Rural Communities (NERC) Act imposes a legal duty on Planning Authorities to 'have regard' to the conservation of biodiversity when considering planning applications.

Section 41 of the NERC Act requires the Secretary of State to publish a list of species and habitats of principal importance for conserving biodiversity in the UK. Such Biodiversity Action Plan (BAP) Habitats and Species (2007) do not offer the species any specific protection but help to highlight the species importance at a national level. This list is used by Local Planning Authorities to identify the species and habitats that should be afforded priority when applying the requirements of the National Planning Policy Framework (NPPF).

The NPPF underpins the Government's planning policies for England and how these are to be applied. The central theme of the NPPF is a presumption in favour of sustainable development. This presumption does not apply where development requiring Appropriate Assessment under the Birds or Habitats Directives is being considered, planned, or determined.

The NPPF states:

*'When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:*

- if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- proposed development on land within or outside a Site of Special Scientific Interest (SSSI) likely to have an adverse effect on a SSSI (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of SSSIs;*

- *development proposals where the primary objective is to conserve or enhance biodiversity should be permitted;*
- *opportunities to incorporate biodiversity in and around developments should be encouraged;*
- *planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss; and*
- *the following wildlife sites should be given the same protection as European sites: potential Special Protection Areas (SPA) and possible Special Areas of Conservation (SAC); listed or proposed Ramsar sites; and sites identified, or required, as compensatory measures for adverse effects on European sites, potential SPAs, possible SACs, and listed or proposed Ramsar sites.'*

The NPPF requires the Planning Authority to have a responsibility to promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets, and identify suitable indicators for monitoring biodiversity in the plan. In addition, the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

## **APPENDIX 2**

### **Ecological Assessment (TEP 2020)**



THE  
ENVIRONMENT  
PARTNERSHIP

---



# TEN ACRES LANE NEWTON HEATH, MANCHESTER ECOLOGICAL ASSESSMENT

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|                |                       |
|----------------|-----------------------|
| Document Title | Ecological Assessment |
| Prepared for   | Nuvu Development Ltd  |
| Prepared by    | TEP - Warrington      |
| Document Ref   | 8188.002              |

|          |                |
|----------|----------------|
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## **APPENDICES**

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## **DRAWINGS**

|            |                        |
|------------|------------------------|
| G8188.008B | Phase 1 Habitat Survey |
|------------|------------------------|

## Executive Summary

1. TEP undertook an ecological assessment of land at Ten Acres Lane in Newton Heath, Manchester to support a planning application for remediation of the site. Remediation is required due to extensive ground contamination from previous industrial use. There will be a separate, follow-on application for residential-led development.
2. The site covers approximately 20 ha and predominantly comprises semi-natural broad-leaved woodland, dense scrub and rough grassland. There are no habitats of principal importance, as defined under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006, within the site.
3. Rochdale Canal SAC/SSSI is approximately 1.5 km from the site. A non-designated stretch of this canal borders the site to the north.
4. The invasive non-native species, Japanese knotweed *Fallopia japonica*, is present throughout the site and there are localised stands of the invasive non-native rhododendron *Rhododendron ponticum*. Other invasive non-native species, namely Nuttall's waterweed *Elodea nuttallii* and New Zealand pigmyweed *Crassula helmsii*, are present in the adjacent canal. No protected plant species were identified on the site or in the adjacent canal.
5. A small slowworm population was identified on site. Slowworm is a S41 species of principal importance under the NERC Act 2006.
6. A tree protection plan should be produced to ensure that any retained trees within or adjacent to the site are protected during the site remediation.
7. A Construction Environmental Management Plan (CEMP) should be produced to prevent adverse impacts on the adjacent canal during remediation of the site.
8. A method statement for the control of non-native invasive species should be produced to ensure that such species are either managed to prevent their spread, or are eradicated, during the remediation of the site.
9. If external lighting is required during remediation works, a sensitive lighting design should be produced to avoid indirect impacts on nocturnal and crepuscular species such as bats, particularly along the canal corridor to the north of the site.
10. Clearance of trees and scrub should avoid the nesting bird season of March to August inclusive. If such clearance works are necessary during the core breeding bird season, a nesting bird check by an ecologist must be undertaken.
11. Due to the presence of slowworm, a reptile mitigation strategy is required to support the works. Translocation to a safe-guarded, off-site receptor area is likely to be needed if no areas of suitable habitat are to be retained on site.
12. Recommendations for biodiversity enhancement to inform the follow-on residential-led development are provided, although these measures could not practically be implemented as part of the wholesale remediation of the site, which must precede any such development.

## 1.0 Introduction

- 1.1 TEP was commissioned in April 2020 by Nuvu Development Ltd to carry out an ecological assessment of land east of Ten Acres Lane in Newton Heath, Manchester. This assessment has been requested to support a planning application for full site clearance and remediation. There will be a separate, follow-on application for residential-led development. This report has the following objectives:
- to describe the existing vegetation and give an overview of the habitats present on the site;
  - to identify whether there are any features of conservation value such as legally protected species or habitats of biodiversity importance;
  - to advise of further surveys or mitigation requirements that may be needed prior to development of the site; and
  - to outline opportunities to provide biodiversity enhancement within site proposals.
- 1.2 This ecological assessment is informed by the following survey work:
- Ecology desk study;
  - Extended Phase 1 habitat survey;
  - Aquatic flora survey
  - Preliminary bat roost assessment (daytime) of trees;
  - Nocturnal bat activity transect and automated static detector surveys;
  - Daytime assessment of one tree feature for bat potential;
  - Breeding bird survey
  - Badger survey; and
  - Reptile survey
- 1.3 The site covers approximately 20 ha and predominantly comprises semi-natural broad-leaved woodland, dense scrub and rough grassland. The site is located to the south of the A62, with the Rochdale Canal running adjacent along the northern site boundary, Ten Acres Lane on the western boundary, a residential estate including Briscoe Lane Academy and Day nursery to the south and housing and retail development to the east. The approximate central grid reference for the site is SD 87582 00287. The survey area and site context are shown in Figure 1.

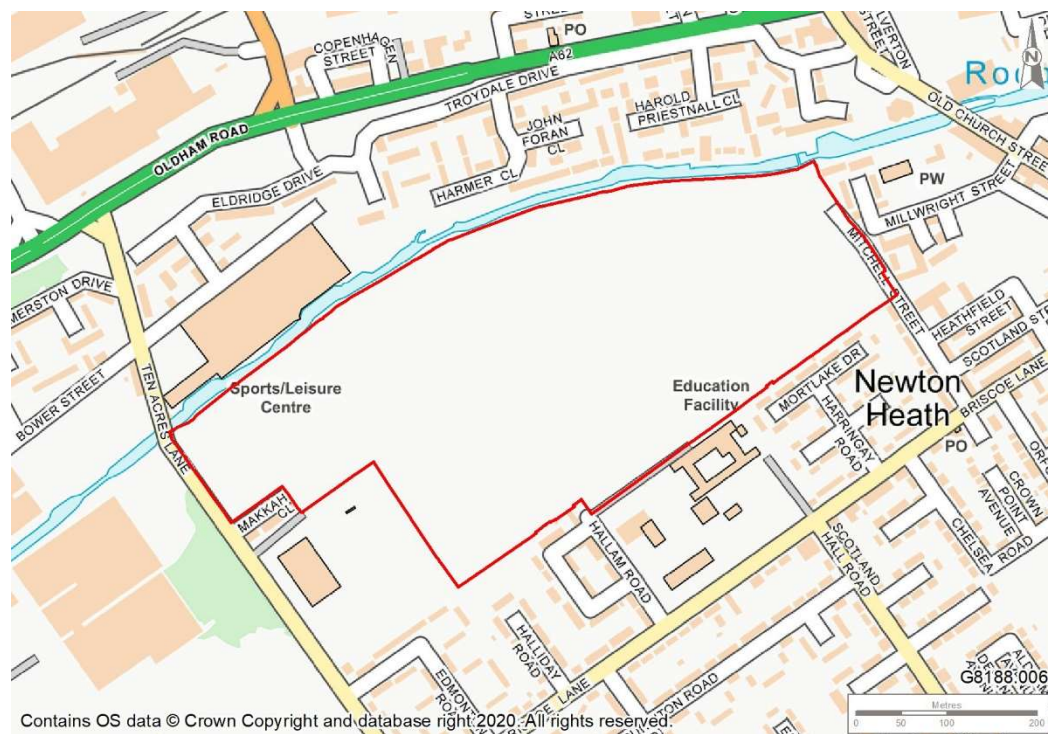


Figure 1: Site location in wider landscape (Contains Ordnance Survey data © Crown copyright and database right 2020)

## 2.0 Methods

### Ecology Desk Study

- 2.1 Information regarding historic species records was obtained from within a 2km radius of the site from GMEU. Records of internationally protected sites were obtained from within a 10km radius, nationally designated sites within 5km radius and locally protected sites within a 2km radius of the site were requested/gathered from the sources listed in Table 1. This collated data gives a useful indication of the distribution and abundance of ecological receptors at a given locale. An absence of records does not indicate the absence of protected species from the search area. Our survey work has sought to identify the potential for any protected species.

*Table 1: Sources of ecological information*

| Source of Information                                                  | Nature of Information                           |
|------------------------------------------------------------------------|-------------------------------------------------|
| Where's the Path                                                       | Satellite & OS imagery                          |
| Multi-Agency Geographic Information for the Countryside (MAGIC) Map    | Statutory protected sites and habitat inventory |
| Greater Manchester Ecology Unit (GMEU)                                 | Protected species records and designated sites  |
| Manchester Core Strategy Development Plan Document (adopted July 2012) | Land allocations and relevant policies          |

### Habitats and Flora

#### Extended Phase 1 Habitat Survey

- 2.2 The Phase 1 habitat survey was carried out by ecologist Clare Gower, (FISC Level 4 Botanist) on 9th April 2020. The survey was carried out in accordance with the Phase 1 habitat assessment methods (JNCC 2010<sup>1</sup>) and the Guidelines for Preliminary Ecological Appraisal (CIEEM 2017<sup>2</sup>). The method records the habitat types present within and immediately surrounding the site, based on the JNCC descriptions. Plant species were identified in accordance with Stace (2010) and recorded as target notes using the DAFOR scale.

#### *Limitations*

- 2.3 The recommended season to undertake Phase 1 habitat surveys is between April and September inclusive. The survey was undertaken within the optimal survey window and no survey constraints were encountered.

<sup>1</sup> JNCC 2010. Handbook for Phase 1 Habitat Survey: A technique for environmental audit.

<sup>2</sup> CIEEM 2017. Guidelines for Preliminary Ecological Appraisal.

### Aquatic Flora Survey

- 2.4 An aquatic flora survey was carried out by ecologist Dr Ben Goldsmith (Goldsmith Ecology), a specialist in aquatic macrophyte ecology on 29th and 30th September 2020. The survey focused on the 800m stretch of Rochdale Canal that lies directly adjacent to the site to the north, and was carried out to assess this stretch for the presence of floating water plantain *Luronium natans*. Floating water plantain is recorded in Rochdale Canal SSSI and SAC which begins approximately 1.5 km to the east of the site.
- 2.5 Using a boat for access, an assessment was carried out with the aid of a bathyscope (underwater viewer) to record submerged and emergent/floating vegetation at set points in regular intervals along the 800m stretch. These notes were recorded using the DAFOR scale.

### Limitations

- 2.6 The timing of the survey was towards the end of the aquatic plant survey window but the majority of plants encountered were in good condition and the survey is therefore considered representative of the site. Conditions during the survey were calm, with only light winds and mainly bright sunshine on the 29th Sept, and overcast with light rain on the 30th Sept. The water was clear and mainly between 0.4 – 1.0 m deep, making visual assessment of species and abundance easy without the need for grapnel sampling. The exception to this was within the locks where, if full, the water was in excess of 3 m deep or if only partially filled, safe access by boat was restricted. The locks were therefore assessed only from the bank, no submerged plants were seen in these areas.

### **Fauna**

- 2.7 The Phase 1 survey method was extended through the additional recording of specific features indicating the presence, or likely presence, of protected species or other species of nature conservation significance, including invasive species, broadly in accordance with Guidelines for Preliminary Baseline Ecological Appraisal (CIEEM, 2017).

### Bats

#### *Preliminary Daytime Bat Roost Assessment & Assessment of Foraging and Commuting Potential*

- 2.8 The ecological appraisal included a ground-based assessment of the trees within the site boundary for bat roosting potential. This assessment was carried out with the aid of binoculars to search for any field signs of bats or features with bat roosting potential. The preliminary daytime bat roost assessment was carried out by Clare Gower at the same time as the Phase 1 habitat survey on 9th April 2020. The habitats on site and surrounding the site were also assessed for potential to support roosting, foraging and commuting bats.

- 2.9 On 30th September 2020 an endoscope survey was carried out by TEP Ecologist Dale Mortiboys (Natural England Survey Class Licence Level 2: 2015-15414-CLS-CLS) on one tree, previously identified by Clare Gower during the Phase 1 habitat survey to be provisionally of moderate potential for roosting bats.
- 2.10 The criteria for preliminary roost assessment are based upon the Bat Conservation Trust (BCT) Guidelines (2016<sup>3</sup>) as shown in Table 2.

*Table 2: Roost assessment criteria (from Table 4.1 of BCT Guidelines 2016)*

| Roost Suitability | Description of roosting habitat                                                                                                                                                                                                                          | Commuting and foraging habitats                                                                                                                                                                                                                                                                                       |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Negligible        | Negligible habitat features on site to be used by roosting bats.                                                                                                                                                                                         | Negligible habitat features on site to be used by commuting and foraging bats.                                                                                                                                                                                                                                        |
| Low               | A tree of sufficient size and age to contain potential roost features (PRFs) but with none seen from the ground or features seen with only very limited roosting potential.                                                                              | Habitat that could be used by small numbers of commuting bats (e.g. a gappy hedgerow or an un-vegetated stream) or foraging bats (e.g. a lone tree or small patch of scrub) but which is isolated from the surrounding countryside by other habitat.                                                                  |
| Moderate          | A tree with one or more potential roost features that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat, but which is unlikely to support a roost of high conservation status (maternity or hibernation). | Continuous habitat connected to the wider landscape that could be used by bats for commuting (e.g. lines of trees or scrub or linked back gardens), or foraging bats (e.g. trees, scrub, water, grassland).                                                                                                           |
| High Potential    | A tree with one or more potential roost features that are suitable for use by larger numbers of bats on a regular basis and potentially for longer periods of time, due to their size, shelter, protection, conditions and surrounding habitat.          | Continuous high quality habitat that is strongly connected with the wider landscape that is likely to be used regularly by commuting bats (e.g. river valley, vegetated stream, woodland edge, hedgerows with trees) or foraging bats (e.g. broadleaved woodland, grazed parkland, tree-lined watercourses or ponds). |

#### *Limitations to daytime assessment*

- 2.11 There are no seasonal constraints for undertaking preliminary bat roost assessments of structures or trees. However, the optimal period to undertake this survey of trees is between December and March when trees are out of leaf. This survey was undertaken in April when there was some developing leaf cover. In cases where visibility was limited due to leaf cover, a precautionary assessment was made.

<sup>3</sup> BCT 2016. Bat Surveys for Professional Ecologists: Good Practice Guidelines. Bat Conservation Trust 3rd Ed.

### *Bat activity transect*

- 2.12 One walked transect route was surveyed monthly from May to September 2020. The five dusk transects commenced at sunset and continued for a minimum of two hours. Surveyors used a broadband frequency division detector (Anabat Express, set to transect mode) supplemented by heterodyne detectors. Bat passes were recorded, together with the maximum number of bats observed, the species identified, and any other contextual data such as flight direction, social calling or feeding buzzes.

### *Limitations to nocturnal surveys*

- 2.13 Although there were no significant limitations to the bat transect survey, due to the evidence of antisocial behaviour on site, no static bat detectors were left out on site due to the risk of theft or damage, so data on bat activity is less extensive than would otherwise have been the case. The route of the transect followed the perimeter of the site where a clear path could be followed and also mindful of the risk of antisocial behaviour; however, the route of the transect did not significantly limit the effectiveness of the survey.

### Birds

- 2.14 Breeding bird surveys were carried out by TEP Ecologists, applying methods based on the Breeding Bird Survey (BBS) and Common Bird Census (CBC) methods developed by the British Trust for Ornithology (Gilbert et al. 1998). Each survey visit was carried out approximately 4 weeks apart, over the period April to June, in accordance with standard methodology. There were no limitations to the breeding bird survey.

### Badger

- 2.15 A badger field survey was undertaken by experienced ecologist Clare Gower in conjunction with the Phase 1 habitat survey on 9th April 2020.
- 2.16 The site and surrounding 30m, where accessible, was inspected for badger field signs. These signs include sett(s), hairs, prints, latrines, trails and snuffle holes. There were no limitations to the badger survey.

### Reptiles

- 2.17 A reptile habitat assessment was undertaken by ecologist Clare Gower in conjunction with the Phase 1 habitat survey in April 2020.
- 2.18 Seven presence/absence survey visits were undertaken by ecologist Anthony Carr during April and May 2020. A total of 100 no. survey mats (0.5m x 0.5m corrugated sheets of bitumen-soaked organic fibres) were placed within suitable habitats around the site and were surveyed on seven occasions during warm, sunny weather with little or no wind and no rain. The area covered was approximately 6 ha, equating to approximately 17 tiles/ha. There were no limitations to the reptile survey.

## 3.0 Results

### Ecology Desk Study

- 3.1 A summary of the results of the ecology desk study are set out below. Further details, including maps, are provided at Appendix A.

#### Relevant Planning Policies and Guidance

- 3.2 The site is designated under Policy EM5 (East Manchester Sub Areas) and Policy EC5, H4 (East Manchester) in the Manchester Core Strategy Development Plan Document (adopted July 2012).
- 3.3 The following policies from the Manchester Core Strategy Development Plan Document (adopted July 2012) are most relevant to this assessment:
- Policy EN9 Green Infrastructure:
  - Policy EN15 Biodiversity and Geological Conservation.
- 3.4 Manchester City Council is working in partnership with the nine other Greater Manchester Local Authorities (Greater Manchester Combined Authority) to develop the Greater Manchester Spatial Framework (GMSF), a strategic plan for the city region which will run through to 2037. The following policies within the GMSF relate to biodiversity and nature conservation and are applicable to the site:
- Policy GM-G2 Green infrastructure Network;
  - Policy GM-G7 Trees and Woodland;
  - Policy GM-G10 A Net Enhancement of Biodiversity and Geodiversity.
- 3.5 These policies aim to strengthen and support Greater Manchester's habitats and species by protecting and enhancing key habitats and facilitating opportunities to appreciate wildlife. These policies aim to produce a net enhancement in biodiversity resources by improving connections between habitats and enhancing management of existing habitats. Development will be expected to follow the mitigation hierarchy with regard to biodiversity.

#### Designated Sites

- 3.6 There is one internationally designated site for nature conservation within 10km of the development boundary. Rochdale Canal SAC is located 1.45km to the north east of the site and is designated under article 4(4) of the Directive (92/43/EEC) as it hosts floating water-plantain *Luronium natans* listed in Annex II.
- 3.7 There are two nationally designated sites within 5km of the site; Rochdale Canal of Special Scientific Interest (SSSI) which is located 1.45km to the north-west. As outlined above Rochdale Canal SSSI is designated for its important habitats for submerged plants and emergent vegetation as well as extensive colonies of nationally scarce floating water-plantain.

- 3.8 Hollinwood Branch Canal of Special Scientific Interest (SSSI) which is located 3.5km to the east of the site. Hollinwood Branch Canal is designated for its exceptionally diverse open water plant communities. It contains several regionally and nationally rare species and is the best example of a mesotrophic standing water system in Greater Manchester and Merseyside.
- 3.9 The site is located within the Site of Special Scientific Interest (SSSI) Impact Risk Zone (IRZ) for Rochdale Canal SSSI. The IRZ covers the interest features and sensitivities of European sites, which are underpinned by the SSSI designation. The proposals associated with the large mixed development are listed as a likely risk for the designated site associated with this IRZ therefore the Local Authority is required to consult with Natural England with regards to the potential impacts of the development proposals.
- 3.10 There are two Local Nature Reserves (LNRs) within 2km of the proposed development:
- Boggart Hole Clough, approximately 1.97km to the north of the site
  - Clayton Vale, approximately 800m to the south east of the site beyond the railway line
- 3.11 There are nine non-statutory Sites of Biological Importance (SBIs) within 2km of the proposed development:
- Ashton Canal (West), approximately 1.5km to the south west of the site at its nearest point
  - Bank Bridge Meadow, approximately 950m to the south of the site beyond the railway line
  - Broadhurst Clough, approximately 1.5km to the north of the site
  - Brookdale Clough, approximately 1.7km to the east of the site
  - Boggart Hole Clough, approximately 1.97km to the north of the site
  - Jericho Clough, approximately 1.9km to the east of the site
  - Moston Fairway, approximately 1.3km to the northeast of the site beyond the A62
  - Rochdale Canal Stott's Lane - Ducie Street Basin, runs parallel to the northern boundary
  -

#### Section 41 Habitats

- 3.12 Natural England's inventory of habitats of principal importance (comprising habitats listed under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006), records Lowland Mixed Deciduous Woodland within the site, although reliability for this description is recorded as low. The inventory also records the S41 habitat Open Mosaic Habitats on Previously Developed Land within the site but again with low reliability.

#### Protected Species Records

- 3.13 A number of species spread over a 2km search radius were identified through the GMEU desktop search. Species include those listed under any of the following:

- European Protected Species (EPS);
- Schedule 1 of the Wildlife and Countryside Act 1981, as amended (WCA1);
- Schedule 5 of the Wildlife and Countryside Act 1981, as amended (WCA5);
- Species of principal importance under Section 41 of the Natural Environment and Rural Communities Act 2006 (S41); and
- Red and Amber listed Birds of Conservation Concern (BRd/BAm).

#### Bats

3.14 There are a number of desktop records of bats within 2km of the site:

- Unidentified *Pipistrellus* sp. (EPS, WCA5);
- Common Pipistrelle *Pipistrellus pipistrellus* (EPS, WCA5);
- Soprano Pipistrelle *Pipistrellus pygmaeus* (EPS, WCA5, S41);
- Unidentified *Myotis* sp. (EPS, WCA5);
- Noctule bat *Nyctalus noctula* (EPS, WCA5);
- Daubenton's bat *Myotis daubentonii* (EPS, WCA5);
- Unidentified bat species (EPS, WCA5).

#### Birds

3.15 There are a number of desktop records of birds within 1km of the site:

- Bullfinch *Pyrrhula pyrrhula* (S41, BAm);
- Curlew *Numenius* sp. (S41, BRd)
- Dunnock *Prunella modularis* (BAm);
- Grey Heron *Ardea cinerea* (S41, BRd)
- Herring Gull *Larus argentatus* (BRd)
- House sparrow *Passer domesticus* (S41, BRd);
- Kingfisher *Alcedo atthis* (WCA1, BAm)
- Lapwing *Vanellus vanellus* (BRd);
- Lesser Redpoll *Acanthis cabaret* (S41, BRd)
- Linnet *Linaria cannabina* (BRd, LBAP);
- Little Ringed Plover *Charadrius dubius* (WCA1)
- Peregrine *Falco peregrinus* (WCA1);
- Reed bunting *Emberiza schoeniclus* (BAm);
- Skylark *Alauda arvensis* (BRd);
- Song thrush *Turdus philomelos* (S41, BRd)
- Spotted flycatcher *Muscicapa striata* (BRd);
- Starling *Sturnus vulgaris* (BRd);
- Wood warbler *Phylloscopus sibilatrix* (S41, BRd)

#### Other species

- 3.16 There are desktop records for great crested newt *Triturus cristatus* (EPS, WCA5, S41, LBAP) and common toad *Bufo bufo* (S41) within 2km of the site.
- 3.17 There are desktop records for moth sp. (S41) within 1km of the site.
- 3.18 There are desktop records for European water vole *Arvicola amphibius* (WCA5, S41, LBAP) 1km from the site.

- 3.19 There are desktop records for badger *Meles meles* (PBA) within 1km of the site.
- 3.20 There are desktop records for slowworm *Anguis fragilis* (WCA5, S41) within the site boundary.
- 3.21 There are no records for otter within 1km of the site.

### **Extended Phase 1 Habitat Survey**

- 3.22 The results of the Phase 1 habitat survey are illustrated in Drawing G8188.008B. Detailed Target Notes (TN) are presented at Appendix B. The habitats present within the development site or adjacent to the site are listed below, along with brief descriptions:
- Semi natural broad-leaved woodland;
  - Poor semi-improved grassland;
  - Scattered broad-leaved trees;
  - Dense/continuous scrub;
  - Tall ruderal;
  - Hardstanding;
  - Bare ground;
  - Bare ground with ephemeral/short perennial;
  - Marsh/marshy grassland;
  - Rubble piles.

#### Semi-natural broad-leaved woodland

- 3.23 Areas of semi-natural broad-leaved woodland are present throughout the site in large blocks and in a network of field boundaries, sometimes connected by over-grown unmanaged scrub.
- 3.24 The largest areas of woodland are in the east of the site (TN010) and are interspersed with scrub, tall ruderal vegetation, bare ground and significant vehicle tracks. Fly-tipping and antisocial behaviour is evident. The woodlands are often dominated by willow species, mainly goat willow *Salix caprea* but also contain a variety of middle aged native tree species such as silver birch *Betula pendula*, sycamore *Acer pseudoplatanus*, cherry laurel *Prunus laurocerasus* and elm species *Ulmus sp.* The woodland to the north of the site, adjacent to the canal boundary (TN011) is more diverse in terms of species and structural composition and contains more mature trees. Species here includes rowan *Sorbus aucuparia* and alder *Alnus glutinosa*, as well as various herbaceous ground flora such as herb-robert *Geranium robertianum*, dog's mercury *Mercurialis perennis* and hybrid bluebells *Hyacinthoides x massartiana*.

3.25 There are small areas of semi-natural woodland to the far west of the site, adjacent to Ten Acres Lane (TN001, TN002 & TN005). This area also includes signs of previous development with areas of bricks and rubble suggesting buildings and previous roadways. This area is surrounded by a low standing wall and parallel running hedgerow that runs from the canal to the sports centre boundary at the south west corner of the site. This semi-natural woodland area is dominated by ivy *Hedera helix* and silver birch *Betula pendula*. Other species that are present include Cherry species *Prunus sp.*, crack willow *Salix fragilis*, elm species *Ulmus sp.*, ivy-leaved toadflax *Cymbalaria muralis* and mugwort *Artemisia vulgaris*.

3.26 These areas also contain large areas of Japanese knotweed *Fallopia japonica* (TN004, TN010) and rhododendron *Rhododendron ponticum* (TN001).

#### Poor semi-improved grassland & Tall ruderal

3.27 There are large parcels of grassland in the west of the site (TN006, TN007 & TN008). These unmanaged areas are frequently used by the public with well walked footpaths and evidence of fly-tipping and antisocial behaviour such as burnt out vehicles. These grassland areas are dominated by Yorkshire-fog *Holcus lanatus* and red fescue *Festuca rubra*. Other species include perennial ryegrass *Lolium perenne*, creeping buttercup *Plantago lanceolata*, ribwort plantain *Plantago lanceolata*, dandelion *Taraxacum* species and rosebay willowherb *Chamaenerion angustifolium*. These areas are interspersed with scattered and dense areas of scrub dominated by bramble *Rubus fruticosus* agg. as well as scattered trees and saplings, mostly Silver birch *Betula pendula*.

#### Scattered broad-leaved trees

3.28 There are several trees scattered throughout the grassland area of the site to the west (TN006, TN007 & TN008), these are generally young in age, with the exception of some semi-mature trees in the north of the site, adjacent to the canal tow path (TN011). Species include sycamore *Acer pseudoplatanus*, alder *Alnus glutinosa*, silver birch *Betula pendula*, ash *Fraxinus excelsior*, English oak *Quercus robur*, goat willow *Salix caprea* and cherry *Prunus sp.*

#### Dense/continuous Scrub

3.29 There are several areas of dense bramble scrub including a large clearing area within the semi-natural woodland to the west of the site (TN004), other species include nettle *Urtica dioica*, dogwood *Cornus sanguinea* and Bindweed species *Calystegia sp.* A lot of the main area of woodland to the east (TN010) is underpinned by scrub with extensive bramble and Japanese knotweed *Fallopia japonica*. Other species include pendulous sedge *Carex pendula*, hawthorn *Crataegus monogyna*, and horsetail species *Equisetum sp.*

#### Hardstanding & Bare ground

3.30 Hardstanding covers small areas of the site. There is one large area in the far eastern corner of the site (TN012), scattered bare ground within the centre of the site (TN009) and in the bottom west corner where it looks like there was an old roadway of some description (TN002). TN002 also features large piles of rubble and bricks on the hardstanding ground. Fly-tipping is evident in these areas.

### Protected and Invasive Plant Species

- 3.31 No protected plant species (WCA8) were identified during the extended Phase 1 habitat survey.
- 3.32 Japanese knotweed (WCA9) was recorded throughout the site during the Phase 1 habitat survey (TN004, TN005, TN007, TN010). Small areas of rhododendron *Rhododendron ponticum* were also recorded (TN001). Approximate locations of these non-native invasive plants are shown on Drawing G8188.008B.
- 3.33 Further non-native invasive species were identified during a subsequent aquatic plants survey, namely Nuttall's waterweed *Elodea nuttallii* and New Zealand Pigmyweed *Crassula helmsii*.

### Aquatic Flora Survey

- 3.34 No floating water plantain *Luronium natans* was identified during the aquatic flora survey of the adjacent Rochdale Canal. This stretch of the canal is dominated by the non-native invasive species, Nuttall's waterweed (WCA9). Other species along the canal include common duckweed *Lemna minor*, many rooted duckweed *Spirodela polyrhiza*, curled pondweed *Potamogeton crispus*, European bur-reed *Sparganium emersum*, needle spike-rush *Eleocharis acicularis* and a smooth stonewort *Nitella sp.*
- 3.35 The non-native invasive species, New Zealand pigmyweed *Crassula helmsii* (WCA9), was also recorded during the aquatic flora survey, in one location only.
- 3.36 Full details of the aquatic plants survey are presented at Appendix C.

### Connectivity with the Wider Landscape

- 3.37 The site is located within urban development. To the east are residential properties, road networks and a retail development; to the south are residential properties with limited connectivity to wider landscape and to the west are residential and commercial properties. Rochdale Canal, which runs parallel to the north boundary provides some ecological connectivity with the wider landscape.

### Fauna

#### Bats

#### *Preliminary Daytime Bat Roost Assessments & Assessment of Foraging and Commuting Potential*

- 3.38 A mature ash (TN011), on the north boundary of the site, on the canal tow path near to the loch was assessed as offering low/moderate suitability for roosting bats during the Phase 1 habitat survey. There is a small east-facing hole around 1.5m up from the ground.
- 3.39 This feature was further assessed via endoscope to determine suitable conditions for long-term use, and was downgraded as offering negligible suitability for roosting bats.
- 3.40 The remaining trees on site also had negligible suitability for roosting bats (BCT, 2016). The trees were either young in age and/or had no features present suitable for roosting bats. The site is of less than local value for roosting bats.

- 3.41 The habitats on site provide potential moderate suitability for commuting and foraging bats. The tall grassland and trees offer potential for foraging and commuting bats. The canal, north of the site, is lined with trees providing the site with some connectivity with the wider landscape and commuting habitat for bats.

*Bat activity transect*

- 3.42 The site is of local importance for foraging and commuting common pipistrelle bats and of local importance for commuting noctule bats. The canal and woodland habitats provide the bat foraging and commuting habitats.
- 3.43 Full details of the bat surveys are provided at Appendix D.

Birds

- 3.44 The scattered trees, scrub and grassland, woodland and tall ruderal provides suitable nesting opportunities for a variety of bird species associated with these habitat types.
- 3.45 The desktop returned records of a large number of notable birds including multiple records of WCA1, section 41 and both red and amber listed birds of conservation concern species.
- 3.46 Appendix E details the breeding bird survey results and concludes that the site is of local importance for breeding birds with a moderate species diversity.
- 3.47 A number of notable bird species typically associated with nesting in scrub, hedgerows, shrubs and trees were recorded as probable breeding species within the proposed site including bullfinch, dunnock, song thrush and willow warbler with all four species likely to be breeding within the site itself.
- 3.48 Mistle thrush is the only additional notable species though to be possible breeding within the site boundary.
- 3.49 Full details of the breeding bird survey are presented at Appendix E.

Badger

- 3.50 The majority of the site comprises woodland and grassland, with small areas of hardstanding and bare ground. The woodland habitats are suitable for sett excavation but the surrounding areas and connectivity to the wider landscape are very limiting for foraging and movement. The canal also creates a barrier to the wider landscape and as the site is so well used by the public for dog walking and anti-social behaviour it is unlikely to be used by badgers. No evidence of badgers such as setts, latrines, hairs etc. was identified on or adjacent to the site during the survey.

Reptiles

- 3.51 Reptiles favour sites with a mix of habitat types and varying topography to provide a combination of conditions required for shelter, foraging and basking. The woodland habitats on site are of low-moderate potential for use by reptiles. The edge of the woodland bordering the more open habitat in the west provides potential shelter and hibernation opportunities for reptiles. The open grassland and scrub habitats in the west provide optimal foraging habitat for reptiles. Rubble piles in the west provide some potential hibernation habitat for reptiles.

3.52 The presence/absence reptile survey undertaken in April and May 2020 confirmed the presence of a small population of slow worm in the west of the site, with a peak count of three slow worm across 100 refuge tiles being recorded.

3.53 Full details of the reptile survey are presented at Appendix F.

#### Amphibians

3.54 Ordinance Survey (OS) mapping shows that there are no waterbodies present within 500m of the site, except for the Rochdale Canal on the north boundary of the site. The canal is unsuitable habitat for newts, which require standing water with no appreciable current, and shallow banks with good marginal vegetation. No ponds were identified on site during the Phase 1 habitat survey. The grassland and woodland would provide potential terrestrial habitat for amphibians, and common frog *Rana temporaria* may breed in any temporary puddles that form in damper areas.

#### Otter

3.55 Otters require primarily riparian habitats for foraging and ranging, with wetlands or woodland in close proximity for shelter. Given the amount of disturbance by people and dogs, and the lack of mature trees, beneath which a holt might be made, the site is not considered to have potential for otter, although the species may range along the canal as it is known to be present in Manchester.

#### Water vole

3.56 Water vole require primarily riparian habitats for foraging, commuting and shelter. The brick and stone banks of the adjacent canal and the lack of significant marginal plants make the habitat unsuitable for water vole, and there are no suitable habitats within the site for this species.

## 4.0 Conclusions

- 4.1 This section concludes the potential impacts on the ecological receptors in and around the application site from the proposed remediation of the site.

### **Relevant Planning Policies and Guidance**

- 4.2 Local policies within the Manchester Core Strategy Development Plan Document (adopted July 2012) address potential ecological issues with regard to potential developments and aim to maintain, protect and enhance biodiversity and the ecological network across the wider area of Greater Manchester.

### **Designated Sites**

- 4.3 Rochdale Canal SAC and is approximately 1.5 km from the site, and a non-designated stretch of the canal borders the site. A Construction Environmental Management Plan (CEMP) will be needed to ensure there are no indirect impacts on this internationally designated site during remediation works, which could impact on the canal if preventative measures are not in place to deal with surface water runoff or pollution incidents.
- 4.4 Rochdale Canal SSSI and Hollinwood Branch Canal SSSI are within 5km of the proposed development site. A CEMP is required to avoid indirect impacts on these locally designated sites. Residential development, which will likely follow site remediation, is listed as a likely risk for Rochdale Canal SSSI Impact Risk Zone (IRZ). Consultation with Natural England would be necessary with regard to impacts on the SSSI of a residential application, following site remediation.
- 4.5 There are no other potential impacts on designated sites.

### **Notable Habitats & Plants**

- 4.6 The desk study identifies the potential presence of the S41 habitats Lowland Mixed Woodland and Open Mosaic Habitats on Previously Developed Land (OMH) on site, although the reliability of interpretation for both of these classifications is recorded as low.
- 4.7 With regard to the woodland on site, there is a limited range of woody species and trees are mainly young or middle-aged, with abundant early coloniser tree species such as birch and goat willow. There are few mature trees and there are no trees present with features suitable for use by roosting bats. Japanese knotweed is present throughout and there are localised stands of rhododendron. The woodland on site does not represent a S41 habitat in its current condition and would require significant management inputs over time to achieve that status.
- 4.8 With regard to the potential for OMH to be present, although there is open grassland mixed with encroaching scrub in the west, the species diversity is relatively low and is indicative of a more nutrient rich substrate than would typically be associated with OMH. Left un-managed, scrub woodland would take over the remaining open habitats in the west. There are areas of bare ground but these relate more to recent disturbance due to fires or off-road vehicle use rather than to the presence of a nutrient-poor substrate. The habitats on site do not represent the OMH S41 habitat.

- 4.9 All habitats present will be unavoidably impacted by the large scale remediation of the site, required due to high levels of ground contamination from previous industrial use.

#### Protected and Invasive plant species

- 4.10 No protected plant species (WCA8) were identified during the extended Phase 1 habitat survey.
- 4.11 Japanese knotweed (WCA9) was identified extensively across the site during the Phase 1 habitat survey as was Rhododendron (WCA9). These invasive plant species may be affected by the development, including site clearance works. An invasive species method statement is therefore required to ensure the control of these invasive species.
- 4.12 Nuttall's waterweed (WCA9) was identified extensively along the adjacent canal, and a single incidence of New Zealand Pigmyweed (WCA9) was recorded. These non-native species may be affected by works in or adjacent to the canal.
- 4.13 An invasive species method statement is required to prevent the spread of these species during development works.

### **Fauna**

#### Bats

- 4.14 There are no implications for development works with regard to roosting bats as no trees with bat potential were identified and there are no buildings or other built structures on site.
- 4.15 The loss of vegetation due to the proposed remediation works will result in the loss of local foraging and commuting habitats for bats, although the canal will continue to provide bats with a linear foraging and commuting corridor.
- 4.16 There is the potential for any temporary lighting that may be required during remediation works to impact on the canal corridor and reduce the suitability of this feature for bats, unless a lighting strategy to avoid light spillage onto the canal corridor is implemented.

#### Birds

- 4.17 The trees, scrub, hedgerow and introduced shrub provides suitable nesting habitat for a range of bird species. Loss of this habitat will reduce nesting opportunities and risks the destruction of active nests during remediation works.

#### Badger

- 4.18 The site offers suitable habitat for badger foraging and sett creation; however, no evidence of badger was noted on or adjacent to the site during survey or from the desk study. Public use of the site reduces suitability for the species. There are no implications for works with regard to badger.

### Reptiles

- 4.19 Habitats in the west of the site provide suitable conditions for reptiles and a small slow worm population has been identified there. A mitigation strategy is required to avoid impacts on slow worm during the site investigation works and during remediation of the site.

### Amphibians

- 4.20 There are no ponds on or adjacent to the site. The adjacent canal has only limited potential for amphibians due to the hard upright bank and lack of marginal vegetation on the side bordering the site. There are no implications for works with regard to amphibians.

### Otter

- 4.21 Although otters may range along the canal corridor they would not take shelter within the site due to the level of human disturbance. There are no implications for the remediation works with regard to otter.

### Water Vole

- 4.22 There are no suitable habitats for water vole on site or on the adjacent canal. There are no implications for the remediation with regard to water vole.

## 5.0 Recommendations

- 5.1 A number of potential ecological constraints require further consideration to ensure that remediation of the site does not result in an offence being committed in respect of protected species.

### **Habitats**

- 5.2 A tree protection plan should be produced to ensure that any retained trees within or adjacent to the site are protected during the site remediation.
- 5.3 A Construction Environmental Management Plan (CEMP) should be produced to prevent any adverse impacts on the adjacent canal during remediation of the site, and any subsequent indirect impacts on connected designated sites along the canal.

### Invasive plant species

- 5.4 The non-native invasive species Japanese knotweed, rhododendron, Nuttall's waterweed and New Zealand pigmyweed are present on or adjacent to the site. A method statement for the control of non-native invasive species should be produced to ensure that these species are either managed to prevent their spread, or are eradicated, during the remediation of the site.
- 5.5 Aside from eradication of Japanese knotweed and rhododendron from the site, removal of the single occurrence of New Zealand pigmyweed from the adjacent canal at an early opportunity would be particularly beneficial, before this species spreads and reduces the diversity of plants in the canal. Detailed biosecurity measures, such as the cleaning of footwear, tools and machinery will be required to ensure that invasive species are not spread to other sites.

### **Fauna**

#### Bats

- 5.6 If external lighting is required during remediation works, a sensitive lighting design should be produced to avoid indirect impacts on nocturnal and crepuscular species such as bats, particularly along the canal corridor to the north of the site.

#### Birds

- 5.7 Clearance of trees and scrub should avoid the nesting bird season of March to August inclusive. If such clearance works are necessary during the core breeding bird season, or at any time when bird nesting is suspected, a nesting bird check of the affected area by an experienced ecologist must be undertaken. The nesting bird check must take place no more than 24 hours prior to the clearance works. In the event that an active nest is found the ecologist will provide advice on setting up a suitable protection area around the nest until the young have fledged. The extent of the exclusion zone will depend upon the bird species concerned and its location within the development. Extensive clearance of potential bird nesting habitat is not always practical during the core breeding season and development programmes should take this constraint into account.

### Reptiles

- 5.8 Due to the presence of a small slowworm population, a reptile mitigation strategy is required to inform remediation of the site. A phased strip of grassland can be used to displace reptiles from small working areas. Such displacement should be undertaken prior to site investigation works, under the supervision of an ecologist. Reptile displacement is only effective outside of the period November to February, and only when temperatures are a minimum of 9 degrees C.
- 5.9 For remediation works affecting the entire site, a reptile mitigation strategy involving translocation to a safe-guarded, off-site receptor area is likely to be required, if no areas of suitable habitat are to be retained on site. Habitat enhancement, creation or restoration works will likely be needed at the release site, to increase its carrying capacity for slowworm. A long-term management plan for the release site will be needed.
- 5.10 To capture and translocate a small slowworm population from approximately 10 ha of good quality habitat and move them to an off-site receptor area would take a minimum of six days, continuing until no slowworm are caught for five days. Capture days should be during favourable conditions for reptiles to be active. The exercise should ideally begin in April, and can continue until no later than mid-September.

### **Opportunities for Biodiversity Enhancement**

- 5.11 Under the National Planning Policy Framework (NPPF), developments should aim to minimise impacts on biodiversity and identify and pursue opportunities for securing measurable net gains for biodiversity. Local policies in the Manchester Core Strategy Development Plan Document (adopted July 2012) encourage developers to implement reasonable opportunities to enhance or create new biodiversity on site or adjacent to potential sites, to produce a net gain in biodiversity.
- 5.12 **The following enhancement measures could not practically be implemented as part of the wholesale remediation of the site, as required to remove contamination resulting from previous industrial use, but such measures should inform the final landscape for any follow-on development, once remediation of the site is complete.**
- 5.13 Tree planting should be included within the final design of the site, both within the streetscape and within retained green space. Fruiting and flowering tree species are of most value to wildlife.
- 5.14 Shrub planting incorporated into a soft landscaping design should include the use of native or wildlife-friendly species to enhance the biodiversity of the site. Species such as hawthorn *Crataegus monogyna*, blackthorn *Prunus spinosa*, rose *Rosa* species, hazel *Corylus avellana*, dogwood *Cornus sanguinea*, holly *Ilex aquifolium* and spindle *Euonymus europaeus* are suggested.
- 5.15 Any new buildings, structures or tree planting should be at a distance where they will have minimal impact on light reaching the canal. This constraint will promote diversity of aquatic and emergent plants in the canal. For example, the highest point of any new structure should not bisect a line drawn at an angle of 45 degrees from the canal bank. Further recommendations to enhance the canal are provided at Appendix C.

- 5.16 Grassland habitats should be enhanced by the inclusion of wildflower meadow buffers and wildflower bulbs to promote herbaceous diversity and pollinator opportunities.
- 5.17 Installation of bat boxes would enhance opportunities for roosting bats. A combination of boxes designed to support a range of bat species known to the area could be installed on mature retained trees and on or within new buildings. Examples of boxes that could be used would be the Schwegler 2F bat box or the Beaumaris Woodstone bat box. These boxes should be sited at an appropriate height and aspect, close to retained and created habitats for bats.
- 5.18 Installation of bird boxes would enhance opportunities for nesting birds. Nesting features should be targeted for those species known to occur in the surrounding area. A combination of boxes designed to support a range of bird species could be installed in discrete locations. Examples of boxes would be a 1SP Sparrow Terrace or a Schwegler 1B bird box. These boxes should be sited at an appropriate height and aspect, close to retained and created habitats for birds.

## **APPENDIX A: Ecology Desk Study**

## **APPENDIX B: Habitat Survey Target Notes Report**

## **APPENDIX C: Aquatic Plants Survey Report**

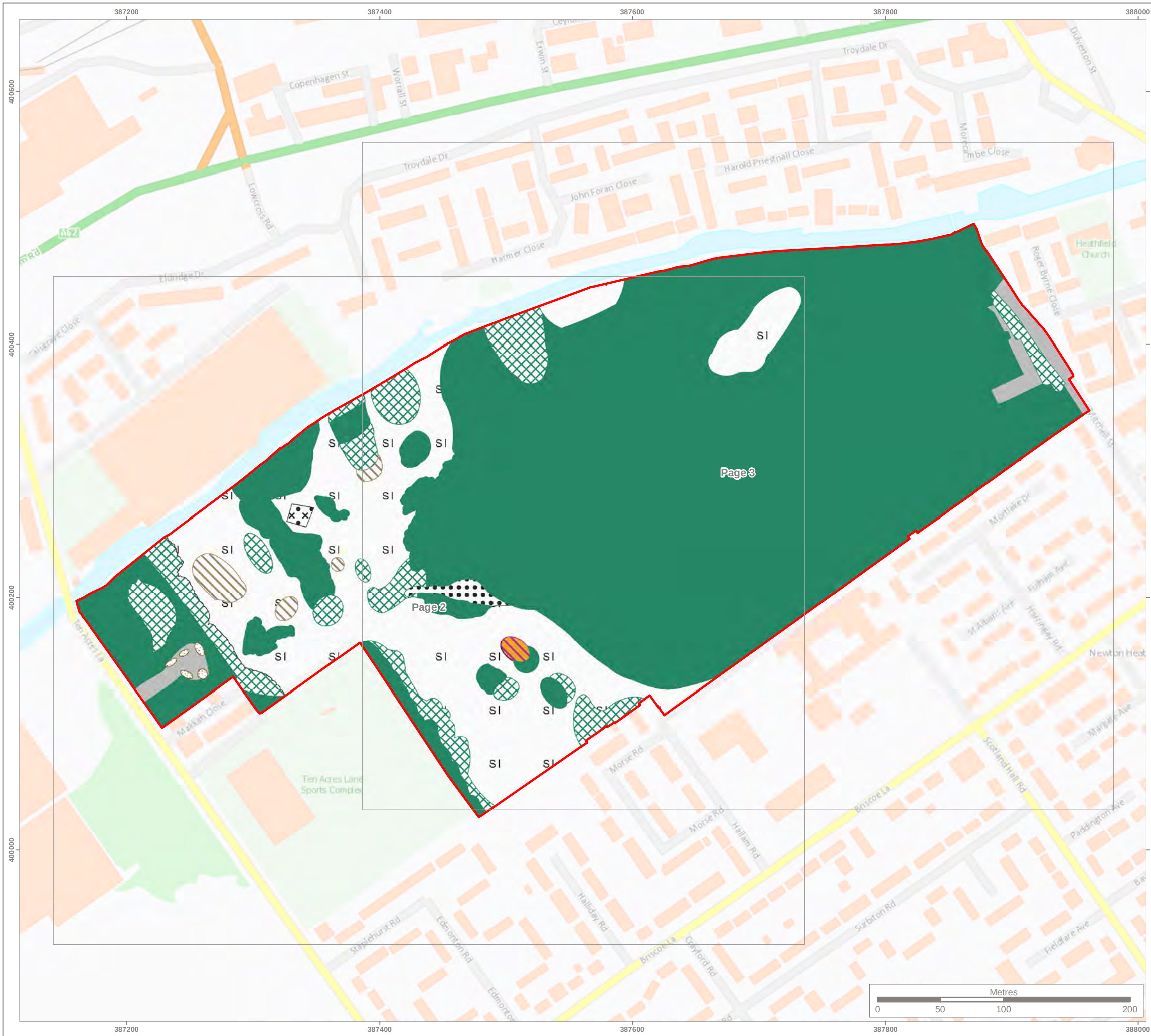
## **APPENDIX D: Bat Surveys Report**

## **APPENDIX E: Breeding Bird Survey Report**

## **APPENDIX F: Reptile Survey Report**

## **DRAWINGS**

### **G8188.008B Phase 1 Habitat Survey**



KEY

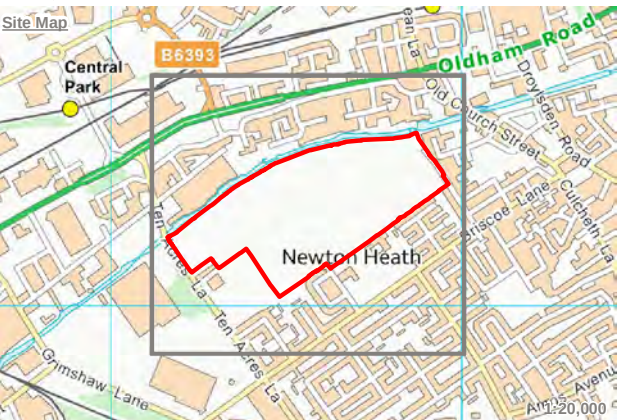
- Site boundary
- Page and page number
- Semi-natural broad-leaved woodland
- Dense/continuous scrub
- Marsh/marshy grassland
- Poor semi-improved grassland
- Tall ruderal
- Bare ground with ephemeral/short perennial
- Bare ground
- Hardstanding
- Rubble pile

Note:

The locations of habitats and habitat features are indicative.

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|     |                                              |       |          |            |
|-----|----------------------------------------------|-------|----------|------------|
| B   | Removal of tree with moderate bat potential. | CW    | DS       | 21/10/2020 |
| A   | Invasive species added into key.             | CW    | DS/CG    | 11/08/2020 |
| Rev | Description                                  | Drawn | Approved | Date       |

**THE ENVIRONMENT PARTNERSHIP**

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Project  
Ten Acres Lane, Newton Heath, Manchester

Title  
Phase 1 Habitat Survey

|                                       |              |
|---------------------------------------|--------------|
| Drawing Number<br><b>G8188.008B.1</b> | Sheet 1 of 3 |
|---------------------------------------|--------------|

|             |               |                |                       |                    |
|-------------|---------------|----------------|-----------------------|--------------------|
| Drawn<br>CW | Checked<br>JO | Approved<br>CG | Scale<br>1:3,000 @ A3 | Date<br>21/10/2020 |
|-------------|---------------|----------------|-----------------------|--------------------|



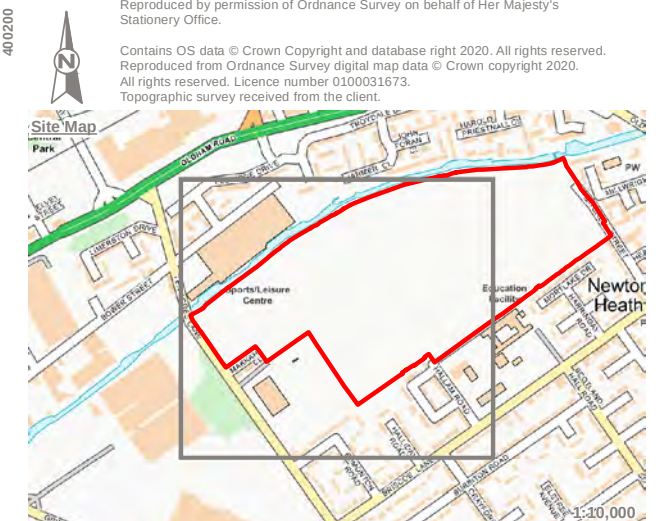
**KEY**

- Site boundary
- JK Japanese knotweed
- RP Rhododendron ponticum
- Target note
- Scattered scrub
- Scattered broad-leaved tree
- Species-poor intact hedge
- Fence
- Wall
- Semi-natural broad-leaved woodland
- Dense/continuous scrub
- Marsh/marshy grassland
- Poor semi-improved grassland
- Tall ruderal
- Bare ground with ephemeral/short perennial
- Bare ground
- Hardstanding
- Rubble pile

**Note:**

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|     |                                              |       |          |            |
|-----|----------------------------------------------|-------|----------|------------|
| B   | Removal of tree with moderate bat potential. | CW    | DS       | 21/10/2020 |
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| Rev | Description                                  | Drawn | Approved | Date       |



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Project  
Ten Acres Lane, Newton Heath, Manchester

Title  
Phase 1 Habitat Survey

|                                |               |                |                       |                    |
|--------------------------------|---------------|----------------|-----------------------|--------------------|
| Drawing Number<br>G8188.008B.2 |               |                |                       | Sheet 2 of 3       |
| Drawn<br>CW                    | Checked<br>JO | Approved<br>CG | Scale<br>1:2,000 @ A3 | Date<br>21/10/2020 |



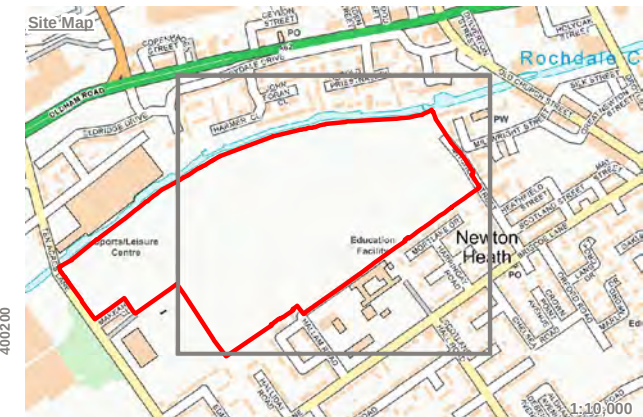
**KEY**

- Site boundary
- Japanese knotweed
- Target note
- Scattered scrub
- Scattered broad-leaved tree
- Fence
- Earth bank
- Semi-natural broad-leaved woodland
- Dense/continuous scrub
- Marsh/marshy grassland
- Poor semi-improved grassland
- Tall ruderal
- Bare ground
- Hardstanding

**Note:**

The locations of habitats and habitat features are indicative.

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|     |                                              |       |          |            |
|-----|----------------------------------------------|-------|----------|------------|
| B   | Removal of tree with moderate bat potential. | CW    | DS       | 21/10/2020 |
| A   | Invasive species added into key.             | CW    | DS/CG    | 11/08/2020 |
| Rev | Description                                  | Drawn | Approved | Date       |



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Project  
Ten Acres Lane, Newton Heath, Manchester

Title  
Phase 1 Habitat Survey

|                                |               |                |                       |                    |
|--------------------------------|---------------|----------------|-----------------------|--------------------|
| Drawing Number<br>G8188.008B.3 |               |                |                       | Sheet 3 of 3       |
| Drawn<br>CW                    | Checked<br>JO | Approved<br>CG | Scale<br>1:2,000 @ A3 | Date<br>21/10/2020 |



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## **APPENDIX 3**

### **ES Chapter 5. Construction Management (Wardell Armstrong 2021)**

# 5 Construction Management

## Introduction

- 5.1 This chapter of the ES describes the proposed construction programme in relation to the remediation of the site and provides a review of the potential impacts of these works along with reviewing potential mitigation measures.
- 5.2 The primary aim throughout the proposed remediation works will be to minimise the impact of the works on the surrounding environment (including neighbours, neighbouring buildings, local infrastructure etc).
- 5.3 This chapter has been prepared prior to the appointment of a remediation contractor. The information outlined is therefore outline / preliminary and is based on the current understanding of the site conditions and what would likely need to be considered for a site of this nature.
- 5.4 Further details on the programme, the potential impacts and proposed mitigation will be available once a remediation contractor has been appointed and a suitable Construction Management Plan (CMP) / Construction Environmental Management Plan (CEMP) and Health and Safety Information, amongst other matters, have been prepared.

## Programme

- 5.5 The approximate remediation programme is anticipated to be split into at least two phases with the full works being completed within c. 24 months from the commencement date. However, this timeframe is subject to the the finalised remedial strategy ultimately adopted by the Client appointed remediation contractor, obtaining regulatory approvals and the requirements / full extent of the Japanese Knotweed treatment programme that will be required.

## Construction Methodology

- 5.6 The following section of the document looks at the likely construction methodology and in particular focuses on the potential impacts of the remediation works and the potential measures necessary to mitigate these impacts. At this preliminary stage it is envisaged that this could include, but not be limited to the items discussed below.

## General Site Management

- 5.7 The developer / main contractor should be responsible for the management and implementation of the following:

## Site Working Hours

- 5.8 For noisy works that are audible beyond the site boundaries the developer / main contractor should adhere to those locally adopted hours that would apply to construction works. The normal working hours in line with Manchester City Council Guidance are 07.30 to 18:00 Monday to Friday and 08:00 to 14:00 on Saturdays. In addition, access to the site is usually permitted 30 minutes prior to the working day commencing with noise being kept to a minimum for the first half and hour of the day. Working hours will be secured by planning condition.
- 5.9 All sub-contractors including suppliers should be made aware of the permitted working hours as the restrictions also apply to deliveries.

### ***Compound Layout and Parking***

- 5.10 Site parking should be managed to remove the need to park on adjacent roads and to minimise impact to surrounding residents and businesses.
- 5.11 Site parking should be physically separated from the areas where mobile plant and lorries are operating by temporary fencing and all plant prohibited from entering the site car park.
- 5.12 The site car park and compound should be located close to the site entrance to avoid the need to drive through the working area of the site. The use of site vehicles should be restricted to designated areas.

### ***Security and Fencing***

- 5.13 Adequate fencing will likely be required throughout the project duration for security and to segregate work activities. Existing boundary fencing is already in place for parts of the site and consideration should be given to its incorporation (subject to assessment) in the perimeter fencing that should be installed along the site boundaries. All work areas should be fenced off, so the site is secure and clearly delineate designated vehicle / pedestrian entrances (if required).
- 5.14 A site compound with secure fencing is already available off Ten Acres Lane and consideration should be given to its use for the remediation works. Secure fencing should also be erected around any treatment areas, as well as specific task fencing around any individual hotspot excavations, encompassing all working plant and exposed material. Warning signs should be attached to fencing to communicate the potential dangers associated with specific site areas.
- 5.15 Consideration should also be given to the use of full-time security at the site to guard personnel, plant and equipment and to deter any form of criminal activity or antisocial behaviour for the full duration of the works.

### ***Site Offices and Cabins***

- 5.16 Appropriate site offices and cabins should be installed on site with the means to be moved, if necessary. The site should be identified with a sign providing instructions on how the site manager may be contacted if the office is unattended. The condition of site offices should be maintained to ensure they are clean, tidy and free from mud and dust.

### ***Welfare***

- 5.17 Specific details of on-site welfare will be provided as part of the Construction Phase Plan (CPP) produced by the main contractor. On-site welfare facilities should include toilets, offices, canteen / mess facility, drying room, hot and cold water, drinking water and facilities to heat meals.
- 5.18 The condition of welfare facilities should be maintained to ensure they are clean, tidy and free from mud and dust.
- 5.19 If required, all drainage from sinks, showers and lavatories should be connected to a septic tank during the works.

### ***Storage***

- 5.20 All plant and materials should be securely stored on site. The main contractor should be responsible for the management of plant and materials on site and for delivery of materials. There should be no excessive build-up of materials to a point whereby storage issues on site affects day to day operations.

- 5.21 The main contractor should as per the Control of Substances Hazardous to Health Regulations (COSHH) ensure that hazardous materials and substances are accompanied by an appropriate COSHH Assessment prior to the commencement of works. All substances should be stored in a secure compound and adequately banded where required.
- 5.22 Suitable storage facilities for hazardous materials and substances used during the remediation works should also be provided. Any hazardous liquids, lubricants or large volumes of cleaning products should be stored in suitable locked cabinets and spill kits should be available in areas where they may be used.

### **Site Access and Vehicle Movements**

- 5.23 The site is bound by Ten Acres Lane in the west, Mitchell Street in the east and the Rochdale Canal to the north. Footpaths are present along each of these boundaries. There are no official footpaths within the site, but tracks and paths are present that are used by dog walkers etc. The most likely vehicular access point to the site is via the existing compound area just off Ten Acres Lane.
- 5.24 Throughout the works, plant should be limited to within the site boundary with the exception of occasional unavoidable movement on and off site. To minimise the impact on the local businesses & community, the following mitigation measures should be implemented by the main contractor.
- A Traffic Management Plan should be developed by the main contractor. This should take into consideration the site conditions / surrounding roads and set out principles for vehicle / pedestrian access, any road / footpath closures required, heavy goods vehicle (HGV) routing, principles for deliveries, vehicle movements and plant / construction vehicle movements.
  - It is likely that the access points outlined above will be utilised during the construction phase and it is additionally envisaged that deliveries will be made directly to the site.
  - Any required footpath / road closures should be lodged by the main contractor (when appointed) with Manchester City Council and subject to their approval. A site logistics plan for the construction phase should also be provided.
  - There may be specific vehicle movements to / from the site requiring special arrangements – for example where large plant equipment is being delivered to site. The main contractor would be responsible for any temporary road closures, escort vehicles or similar.
  - Vehicle movements should be timed to avoid rush hour / busy periods.
  - No vehicles should be allowed to wait on surrounding streets before attending site to avoid traffic build up / blockages.
  - Suppliers should be made aware of transport routes to and from the site and all deliveries should be pre-booked for a certain delivery time.
  - Monitoring of the vehicle routes and traffic movement throughout the day should also be undertaken.
  - Trained and competent banksman should control all vehicular movements in and around the site.
  - The main contractor should be responsible for liaising with all neighbours throughout the works and advising on vehicle movements and in particular any large / abnormal deliveries, etc.
  - Where possible, a running surface should be employed to ensure that minimal amounts of dust will be generated through vehicle movement on site.
  - Site vehicles should be restricted to hardstanding where possible.
  - A site speed limit employed to further reduce the potential for dust generation.
  - Road going vehicles leaving the site should be covered where required and be inspected for mud on their tyres and bodywork prior to entering the public highway.
  - Wheel washing facilities and the use of water assisted dust sweepers may also be required.
  - Ensuring all vehicles switch off engines when stationary.
  - A construction logistics plan should be produced to manage the sustainable delivery of goods and materials.

### ***Road Cleanliness***

- 5.25 Daily vehicle movement on and off the site should not create the potential for mud and debris to be deposited on the local highways as they leave the site area, creating an unsuitable environmental impact. Mitigation measures such as wheel washing facilities and road sweeping, where applicable, should be considered.
- 5.26 Throughout site works, monitoring of the condition of public roads, namely the transport route, should be undertaken to ensure no significant deposit of mud or debris. Plant movement across the public road should be limited to prevent the possibility of depositing mud on the road.

### ***Waste Management***

- 5.27 The main contractor should be responsible for managing wastes arising from all activities to prevent pollution and meet or exceed legal requirements. A waste management plan should be produced that allows for, but not be limited, to the following:
- Mitigation of the amount of waste generated.
  - Re-use of materials where possible.
  - Segregation of wastes and recycling of materials.
  - Removal of wastes to appropriately licensed facilities.
  - Recording of all waste movements.
  - The use of Duty of Care Consignment notes.
  - Works managed by means of a Materials Management Plan (MMP).
- 5.28 Where required, suitable mitigating measures should also be employed, and these could include, but not be limited to, the following:
- Segregated skips and / or stockpiles.
  - Closed skips to minimise windblown waste generation.
  - Litter picking to remove windblown waste.
  - Suitable positioning and labelling of waste storage areas.
  - Use of suitable wastes storage containers.

### ***Pest Control***

- 5.29 The risk of infestation by pests or vermin should be reduced by implementing appropriate storage and regular collection of putrescible waste. If infestation is found, removal and prevention measures should be implemented promptly in consultation with the Ecological Clerk of Works (ECow).
- 5.30 Any pest infestation of the construction site will be notified to the Local Authority as soon as is practicable.

### ***Air Quality (Including Dust and Odours)***

- 5.31 The main contractor should be responsible for minimising emissions of dust and other pollutants to avoid effects on air quality. This should be done via the management of air quality and particulate matter (dust) generally in accordance with an Air Quality Statement, a suitable Dust Management Plan (DMP) and by employing good housekeeping and proactive management on site.
- 5.32 Each work activity should be reviewed for dust risk prior to the works commencing. Subsequently, suitable controls and mitigation should be implemented as necessary to reduce dust risk accordingly. These are discussed in the sections below.

### ***Excavations***

5.34 During excavation works, monitoring should be undertaken and if required mitigation measures should be implemented. These measures should include but are not limited to the following:

- Site wide excavations will be required and to minimise air and dust emissions works should be confined to small sections of the site at the time.
- Where practicable, windbreak netting / screening should be positioned around excavations to provide a physical barrier between the site and its surroundings.
- Suspending works during windy and adverse weather conditions.
- The use of water sprays to suppress dust and odour.

### ***Soil Stockpiles***

5.35 Mitigation measures should include but are not limited to the following:

- Stockpiles should be placed in specific areas of the site to prevent the release of dust and other fugitive emissions.
- Stockpiles should be located away from site boundaries and / or receptors.
- Unless it is required for a specific purpose, stockpiles should be prevented from drying out by using covers and / or the use of a towable water bowser or similar to damped down the stockpiles.
- Implement stockpile maintenance / management.
- Removal of dusty materials from site as soon as practicably possible.
- Stockpile surface areas should be minimised where possible.
- Where practicable, windbreak netting / screening should be positioned around material stockpiles to provide a physical barrier between the site and its surroundings.

### **Noise and Vibrations**

5.36 The main contractor should be responsible for avoiding, minimising or compensating for the adverse effects of noise and vibration. Any potentially noisy activities should be pre-assessed and the potential impact on both construction operatives and the local environment considered through the use of a noise and vibration management plan with mitigation employed as required.

5.37 In the first instance, noise and vibration control at the source should be undertaken and mitigation measures should include, but are not limited to, the following:

- The selection of quiet and low vibration equipment.
- Plant being well maintained and fitted with silencers.
- The use of low noise working techniques.
- Shutting down plant when not in use.
- Site operations being undertaken with agreed site hours.
- The use of acoustic barriers / screens possibly including acoustic enclosures.
- The use of less intrusive alarming systems.
- Noisy works taking place at prearranged times and away from receptors.

5.38 A noise and vibration monitoring protocol should be implemented with monitoring being undertaken as required and where noise and vibration levels exceed the agreed limits appropriate action should be taken.

5.39 The developer / main contractor should liaise with the Local Council to obtain the appropriate consents and liaise with any parties likely to be affected by noise. They should also be engaged to cooperate with affected parties and to accommodate requirements as far as reasonably possible without delaying the process of works on site.

## **Water Management and Contaminated Waters**

5.40 Water management should include adequate prevention measures to protect identified controlled water receptors with suitable measures to deal with any contaminated waters. Mitigation measures could include but are not limited to the following:

- Site access points being regularly cleaned to prevent the build-up of dust and mud.
- The control of earth movement to reduce the risk of silt combining with the site run-off.
- Properly contained wheel wash facilities (where required) to isolate sediment rich run-off.
- The installation of cut-off ditches and / or geotextile silt-fences around excavations and stockpiles to prevent the uncontrolled release of sediments from the site.
- The use of sediment traps.
- Localised dewatering or the placement of flow barriers to manage perched groundwater in the Made Ground.
- The treatment and suitable disposal of any contaminated waters, if required.
- The installation of a lined and bunded water treatment area, settlement tanks or silt busters to facilitate the treatment of any surface water and its subsequent discharge to the existing foul sewer drains (subject to obtaining the appropriate discharge consent).
- If sewer capacity is limited, then silty water could be stored on-site and disposed of at a suitably licensed location.
- A leachate collection system for any areas where shallow contaminated waters are indicated to be present.
- Mitigation measures to prevent any oil and chemical spillages (see fuelling and hazardous liquids section)
- Decommissioning of any deep boreholes that could act as pathways for sensitive receptors.

## **Fuelling and Hazardous Liquids**

5.41 In order to mitigate the risk of causing pollution through refuelling and the improper storage of hazardous liquids the following mitigation measures could include, but are not limited to the following:

- All fuelling activities and the storage of fuel should take place in one identified area. These areas should be located on hardstanding or a lined area and tanks should be in accordance with current legislation and be suitably bunded with drip trays and secure lids. Emergency spill kits including absorbent granules and pads should be kept in case of accidental release.
- Where possible, plant and machinery should have drip trays beneath oil tanks, engines, gearboxes etc. and these should be checked and emptied regularly and correctly disposed of.
- The production of a Pollution Incident Control Plan (PCIP) that includes response to spillages of oil. Provisions should be made to contain a serious spill or leak through the use of spill kits, booms, bunding and absorbent material.
- Personnel should be trained on the use of spill kits, where applicable.
- The storage of hazardous liquids greater than 10m from any surface waters or surface water gullies.

## **Ecology / Biodiversity**

5.42 The developer / main contractor should be responsible for avoiding, reducing or compensating for any adverse biological effects. Mitigating measures could include, but should not be limited to the following:

- Any removal of vegetation with the potential to support nesting birds should, wherever possible, be undertaken outside the bird nesting season. If any of active clearance work has to be undertaken during the main nesting season, this should only be undertaken under the supervision of a qualified ecologist to ensure that no active nests are present.

- A method statement and tool-box talk should be prepared that would include details of pre-construction verification surveys for bats, describing the approach that would be followed to avoid contravening the WCA 1981. Lighting of site during remediation works to avoid Rochdale Canal corridor.
- Method statement and toolbox talks in regard to reptiles should be prepared to avoid contravening the WCA 1981. Removal of suitable habitat should be designed to avoid the risk of injury to reptiles, through measures such as timing ground works to avoid the reptile hibernation period and the gradual removal of habitat. Pre-habitat clearance capture and translocation of slow worms to off-site receptor location with ongoing management / monitoring (in accordance with an approved ecological method statement).
- Noise control and vibration measures to mitigate damage to ecological receptors are outlined above in the noise and vibrations section above.
- The main contractor should include measures to reduce or limit air dust effects during the remediation works. Dust control measures to mitigate damage to ecological receptors are outlined above in the air quality section and should largely be controlled through the use of a DMP.
- The main contractor should include measures to reduce or limit air quality effects during the remediation works. Air quality measures to mitigate damage to ecological receptors are outlined above in the air quality section.
- Construction practices should comply with the EA's Pollution Prevention Guidelines with a view to preventing the pollution of ground and surface water. Pollution prevention control measures are outlined for waters, noise and dust etc. above. In particular no contamination should be allowed to enter the Rochdale Canal.

### **Land Contamination and Soil Quality**

5.43 The management of any land contamination or quality issues by ensuring the works are undertaken in accordance with relevant CDM 2015 regulations, which incorporates those findings from intrusive investigations that have been undertaken at the site.

5.44 For site workers and visitors, the potential for exposure to contaminants should be mitigated through good construction practices that could include the following:

- The use of COSHH Regulations 2002.
- The Management of Health and Safety at Work Regulations 1999.
- Site inductions.
- Good hygiene practices.
- The use of Personal Protective Equipment (PPE) suitable to prevent exposure.
- Restricted access for personnel for higher risk activities.
- A watching brief should be undertaken in the event of any unrecorded contamination.
- The design of a suitable remediation strategy and agreement following consultation with the EA and the relevant local authority, as appropriate, before implementation.
- Those measures outlined above to reduce dust, limit air quality effects, deal with any unexploded ordnance and the control spillages of oils and other chemicals.

### **Visual Amenity**

5.45 Environmental measures will need to be implemented so that adverse effects on landscape and visual amenity are avoided, reduced or compensated and these could include, but should not be limited to the following:

- The avoidance of unnecessary vegetation removal and the protection of trees or vegetation that are to be retained.
- The retention or provision of screening vegetation along the site boundaries.
- Localised bunding to offer further visual screening.

- Materials and machinery should be stored tidily during the works in order to minimise impacts on views;
- Lighting of compounds and working areas should be restricted to agreed working hours and those which are necessary for security or other requirements.
- Public roads providing access to the construction site should be maintained free of dust and mud.
- Keep clear and clean all working areas and accesses as work proceeds and when no longer required for the works.
- On completion of the project, remove all structures, equipment, surplus soil and materials, waste, notice boards and temporary fences used during the construction with minimum damage to the surrounding area.

### **Invasive Species Management**

5.46 The developer / main contractor should ensure that the remediation works do not result in a contravention of the legislation relating to invasive species management. This could be achieved through the use of a legislatively compliant Invasive Non-Native Species Management Plan covering in particular Japanese knotweed, as well as other species, together with suitable monitoring, validation and management of the remedial works themselves to deal with the Japanese Knotweed and associated infested soils that are present at the site.

### **Unexploded Ordnance (UXO)**

- 5.47 While a UXO Risk assessments have previously been undertaken for the site and a low UXO hazard level has been identified, this was strictly related to the site investigation works and some limited bulk excavations for parts of the site. An updated risk assessment should be undertaken prior to the commencement of the remediation works to ascertain and / or outline what mitigation may be required.
- 5.48 An Emergency Response Plan for unexploded ordnance should be prepared by the contractors and be followed to respond to the discovery of unexploded ordnance. This will include notifications to the relevant local authorities, emergency services, residents and businesses.

### **Cultural Heritage and Archaeology**

5.49 In the event that an archaeological find is discovered the works within the area should stop immediately, the site manager contacted, the area fenced off and advice sought from archaeological specialists.

### **Community / Client Liaison**

5.50 Community liaison with relevant parties being contacted prior to commencement on-site, management during the works and measures to address any complaints.

### **Emergency and Incident Preparedness**

- 5.51 It should be the developer / main contractors' responsibility to undertake the proposed remedial works whilst minimising the potential for accidents and disasters to arise. This will largely be mitigated by ensuring that the works are undertaken in accordance with relevant CDM 2015 regulations, which incorporates those findings from intrusive investigations that have been undertaken at the site. Other mitigating measures could include, but should not be limited, to the following:
- An emergency plan that incorporates major accidents and disasters and their responses arrangements.
  - The production of a PICP to manage any pollution incidents, limit adverse effects on the receiving environment and incident response procedures.

- Implementation of those mitigation measures outlined above in previous sections.
- Ensuring that the site is secure.

### **Monitoring and Compliance**

5.52 Monitoring and compliance should be undertaken by the developer / main contractor to ensure compliance with the CMP /CEMP and these could include, but should not be limited to the following:

- Daily inspections and assessment of environmental performance.
- Checks on equipment to reduce the risk of incidents occurring.
- Sensible monitoring inspections to ensure that daily checks are being undertaken.
- Monthly Environmental Reporting detailing performance and any non-compliance.
- Environmental training and on-going communication methods such as inductions, risk assessment briefings, environmental toolbox talks, environmental briefings, job specification training and project specific information.
- Communication of any audits or inspections, environmental incidents or near misses, any pending or current enforcement action and statistics.
- All activities on-site being subject to a risk assessment.
- Monthly test of the emergency procedures and incident response.

### **Summary**

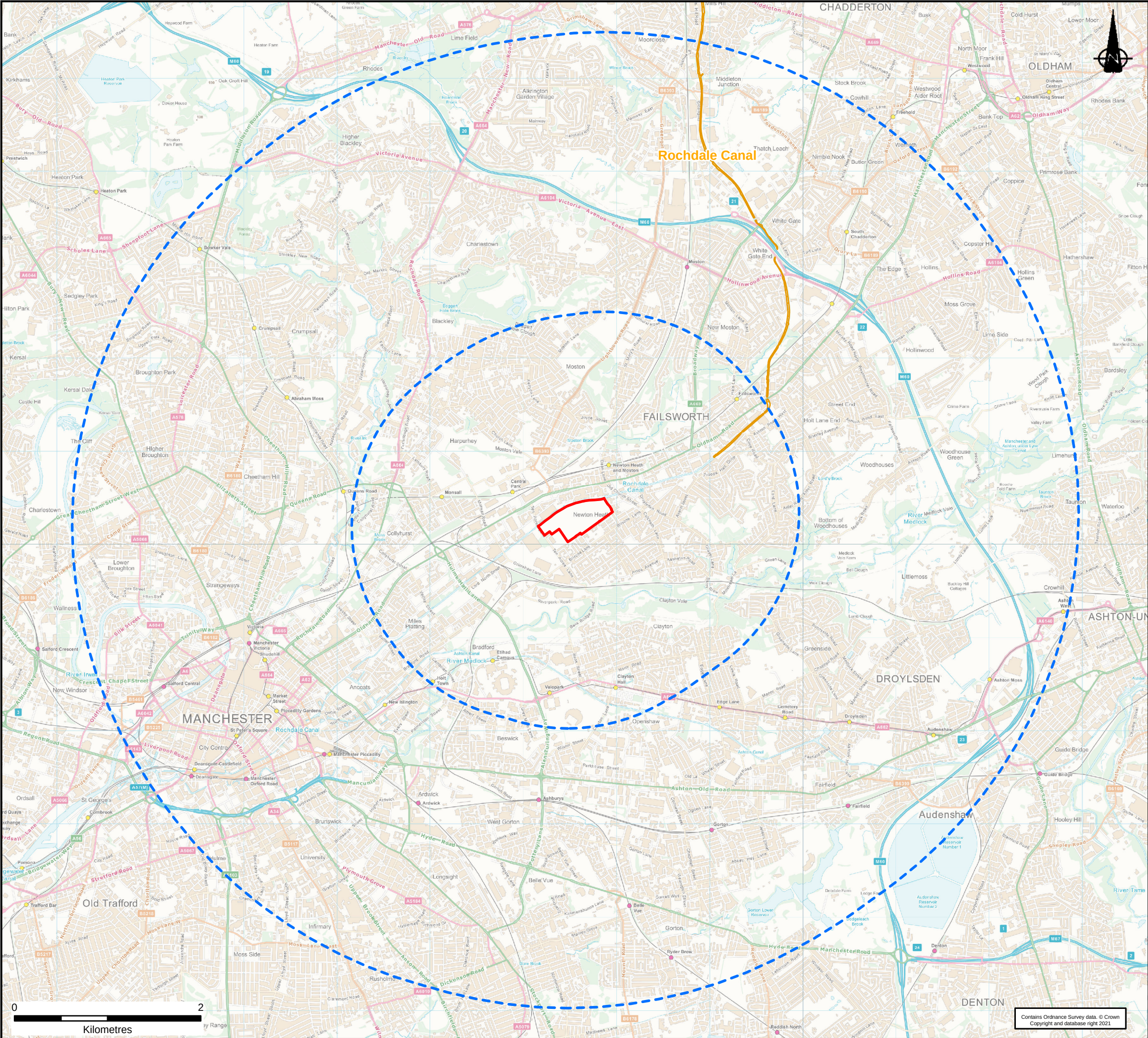
5.53 The Construction Design and Management Regulations 2015 will apply to this project and all appropriate controls and systems will be in place to comply with the standards of the Regulations and associated guidance.

5.54 Every stage of the project will be pre-risk assessed and appropriate controls applied, subcontractors will be pre vetted and will be subject to extensive pre-contract requirements of information transfer and risk assessment.

5.55 The developer / main contractor will at the earliest possible stage of the project enter into dialogue with all relevant parties including neighbours to ensure there is effective coordination throughout all stages of construction.

## **DRAWINGS**

### **Location of Statutory and Non-Statutory Conservation Sites**



KEY

Site Boundary

2 and 5 km Search Area

Special Areas of Conservation

Notes:

Boundaries are indicative.

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|                                            |             |            |          |             |            |
|--------------------------------------------|-------------|------------|----------|-------------|------------|
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| CLIENT                                     |             |            |          |             |            |
| YOUR HOUSING LTD                           |             |            |          |             |            |
| PROJECT                                    |             |            |          |             |            |
| TEN ACRES LANE, NEWTON HEATH               |             |            |          |             |            |
| DRAWING TITLE                              |             |            |          |             |            |
| LOCATION OF NATURA 2000 CONSERVATION SITES |             |            |          |             |            |
| DRG No.                                    | LD10162/001 |            | REV      | A           |            |
| DRG SIZE                                   | A3          | SCALE      | 1:40,000 | DATE        | 07/01/2021 |
| DRAWN BY                                   | SW          | CHECKED BY | TP       | APPROVED BY | TP         |

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