

7. Ecology

Introduction

- 7.1. This Chapter of the ES has been prepared by Wardell Armstrong (WA) and assesses the likely impacts of the proposals upon Ecology receptors within the Site and surrounding area. This Chapter also describes the methods used to assess these impacts, the existing baseline conditions, the proposed mitigation measures required to prevent, reduce or offset any significant negative impacts and the likely residual impacts after these methods have been adopted.
- 7.2. This Chapter is accompanied by five technical appendices, prepared by The Environment Partnership (TEP) as listed below:
- Appendix 7.1: Ecological Assessment (TEP 2020) (including Extended Phase I Habitat Survey and Desk Study);
 - Appendix 7.2: Baseline Aquatic Macrophyte Survey (Goldsmith Ecology 2020);
 - Appendix 7.3: Bat Survey Report (TEP 2020);
 - Appendix 7.4: Breeding Bird Survey (TEP 2020); and
 - Appendix 7.5: Reptile Survey Report (TEP 2020).
- 7.3. This Chapter has been prepared in accordance with Regulation 18(5) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, as amended, and with reference to The Chartered Institute of Ecology and Environmental Management's (CIEEM) Ecological Impact Assessment (EclA) Guidelines (2018)¹. It has been prepared and reviewed by experienced senior WA Ecologists who are full members of CIEEM. The author is Tim Palmer BSC MCIEEM a Technical Director at Wardell Armstrong with over 20 years of experience working as an ecologist within a consultancy setting.

Limitations and Assumptions

- 7.4. The veracity of the baseline work is assured by TEP and their associates, WA accepts no liability for any deviation from standard scope and methodologies as provided by CIEEM.
- 7.5. No detailed botanical surveys (National Vegetation Classification) have been undertaken to fully characterise the vegetation communities on Site, and no entomological surveys were undertaken to consider the value of the Site for invertebrates.
- 7.6. Limitations relating to specific surveys are detailed in each of the technical appendices listed above. In summary, there were no significant limitations to the gathering/or evaluation of the baseline data which will have materially constrained description of the baseline/receptors or of effects on those receptors which have been identified.

¹ Chartered Institute of Ecology and Environmental Management, Guidelines for Ecological Impact Assessment in The UK And Ireland; Terrestrial, Freshwater, Coastal and Marine, September 2018

Legislative and Policy Context

Legislation

- 7.7. The Conservation of Habitats and Species Regulations 2019 transpose the EU Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) and Directive 2009/147/EC on the Conservation of Wild Birds into UK law. These Regulations provide for the notification and protection of statutory designations of European value ('European sites'), and the protection of a number of rare and vulnerable species in a European context ('European Protected Species' – EPS).
- 7.8. Wildlife and Countryside Act (WCA) 1981 (as amended), which protects Sites of Special Scientific Interest, National Nature Reserves, and a range of species including bats, great crested newt, otter, water vole and all wild birds. This includes partial protection for adder, slow worm, common lizard and grass snake. Additional protection is provided to birds listed on Schedule 1 of WCA against disturbance of any Schedule listed bird or young while nesting. Finally, Section 14 of the WCA prohibits the release of any Schedule 9 (part 2) species.
- 7.9. The Natural Environment and Rural Communities (NERC) Act 2006, which requires the Secretary of State to publish a list of habitats and species of principal importance for the conservation of biodiversity in England.
- 7.10. Hedgerow Regulations 1997, which allows identification of hedgerows classified as 'important' against the Wildlife and Landscape Criteria (the 'criteria')
- 7.11. The Protection of Badgers Act 1992, which protects active badger setts and the animals themselves from disturbance.

National Planning Policy

- 7.12. 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.
- 7.13. 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 receive specific protection but their inclusion highlights their 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).
- 7.14. The UK Biodiversity Action Plan was superseded by The Biodiversity Framework (JNCC, 2012) and Biodiversity 2020 (Defra, 2011) with regards to biodiversity policies for the UK. These policies aim to deliver a more strategic, landscape-scale approach to nature conservation, wildlife, people, places, and climate change resilience. The UK Government's 25 Year Environment Plan for England (Defra, 2018) is the policy framework that will replace Biodiversity 2020.
- 7.15. 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.
- 7.16. The NPPF states (Paragraphs: 170-177, *Planning policies and decisions should contribute to and enhance the natural and local environment by:*
 - Protecting and enhancing valued landscapes, Sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

- Recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- Maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures; preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability.
- Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- Remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

7.17. The NPPF goes on to state that *'When determining planning applications, local planning authorities should apply the following principles':*

- If significant harm to biodiversity 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;
- Development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the Site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

Local Planning Policy

- 7.18. The current local plan in Manchester (previously known as the local development framework) consists of the Core Strategy and extant Unitary Development Plan (UDP) policies, of which the Core Strategy is of relevance to this assessment. The Core Strategy and remaining UDP policies (together comprising the current Manchester local plan) are currently under review.
- 7.19. Manchester's Core Strategy Development Plan was adopted on 11 July 2012 by Manchester City Council and is the key Development Plan document in the local development framework. This document replaces significant elements of the existing UDP since the document sets out long term strategic policies for Manchester's future development and forms the framework that planning applications are assessed against.
- 7.20. There are several Core Strategy policies relevant to ecology and biodiversity:
- Policy EN 9- Green Infrastructure: New development will be expected to maintain existing green infrastructure (GI) in terms of its quantity, quality, and multiple function. The council will encourage developers to enhance the quality and quantity of GI, improve the performance of its functions and create and improve linkages to and between areas of GI. Key features of Manchester's GI include the

continued development of a network of green spaces, water bodies, canals, paths, and cycleways, with priority given to those parts of the City where there is an identified existing lack of open space. Manchester's GI will also include the provision of new, and improvements to the quality and accessibility of existing GI assets, to mitigate any loss of GI.

- Policy EN 15- Biodiversity and Geological Conservation: The council will seek to maintain or enhance sites of biodiversity and geological value throughout the City. Particular consideration will be given to sites with international or national designations for their biodiversity value (SSSI and SAC), as well as other sites of biodiversity value (such as SBIs and LNRs) and priority habitats included in the Greater Manchester Biodiversity Action Plan (see below). The nearest SSSI is the Rochdale Canal, which is approximately 1.2km away from the north east boundary of the Site.
- The Greater Manchester Biodiversity Action Plan² identifies species and habitats of local conservation importance (Priority habitats and species) and the required action to conserve and protect them. Manchester is urban in character with many brownfield sites. One such habitat of relevance to the Proposed Development is Grasslands of High Ecological Value on Areas of Previously Developed Land defined as being '*open grasslands with many varied flowering plants and herbs, areas of bare ground and often a little scrub, which can persist for decades with limited management on substrates whose edaphic conditions severely limit plant growth and lead to arrested successions*'.
 - Policy GM-G 2- Green Infrastructure Network: the GI network will be designed, managed, protected, and enhanced to help deliver benefits which involve enhancing biodiversity, by expanding, improving, and connecting habitats.
 - Policy GM-G 7- Trees and Woodland: in making planning decisions, GM's authorities will work to deliver the aims and objective of the GM Tree and Woodland Strategy, by encouraging habitat diversity through conserving and managing existing woodland, as well as targeting tree-planting at the areas of greatest need where the GI benefits can be maximised, whilst avoiding the loss or harm to other priority habitats.
 - Policy GM-G 8 – The GMSF indicates Standards for a Greener Greater Manchester including access to greenspace
 - Policy GM-G 9 – The draft policy considers the requirement for Net Enhancement of Biodiversity and Geodiversity through following the mitigation hierarchy of avoiding harm, mitigating locally or otherwise compensating for loss.

Assessment Methodology and Significance Criteria

- 7.21. The methodology complies with the principles set out within Chartered Institute of Ecology and Environmental Management (CIEEM, 2018) guidance, especially regarding the evaluation of receptors, which is detailed below.
- 7.22. The assessment of significance of impacts is determined by identifying the presence of ecological features; evaluating their importance or value and defining the magnitude of the effects. In order to objectively assess effects arising from a particular development/activity it is essential to establish the sensitivity of each ecological receptor. The sensitivity is evaluated within a geographical context, with each receptor falling into one (or more) of the following categories:
- International and European;
 - National (within England);

² https://www.gmwildlife.org.uk/resources/downloads/gm_bap/grasslands_2009.pdf

- Regional (North West);
 - County/ Metropolitan (Greater Manchester);
 - Local (Newton Heath);
 - Site (i.e. within the defined survey area); and
 - Of negligible importance.
- 7.23. When a receptor falls into more than one category, it is considered to be within the higher level. Some receptors can be readily assigned to one of the above categories, particularly sites that support designations. For example, a Site with a designation assigned through European legislation, such as a Special Area of Conservation (SAC) would normally be considered of International Value; a Site of Special Scientific Interest (SSSI) designated by UK statute would be of National Importance; and a Site designated by a Local Authority would be of County Importance.
- 7.24. Individual species may be protected under European or National legislation; such protection is relevant to the assignment of value to such species, but additional factors, such as Site supported population size and the nature of the distribution of the species are also considered. It is possible therefore for an evaluation of a small Site supported population of great crested newt (recognised in international policy/protection) to be of less than international value, given the contribution of the Site supported population to the overall meta-population.
- 7.25. Receptors which are considered to be of value at local level or higher for which significant impacts can be reasonably anticipated are identified as valued ecological receptors and are discussed throughout the report. Receptors which are not exposed to negative (or positive) effects are excluded from the assessment.
- 7.26. Likely impacts on the receptors occurring within the Site have been identified through consideration of the proposals. The impacts were characterised with reference to the following:
- Whether an impact is considered to be positive or negative;
 - The extent/magnitude of the impact;
 - Duration of the impact, its timing and frequency; and
 - Whether any of the impacts are cumulative in effect.
- 7.27. Both positive and negative impacts/effects will be determined according to whether the change is in accordance with nature conservation initiatives and policy. The definitions provided within CIEEM guidance (2018) are detailed within Table 7.1, below. Confidence in the assessment, based on the availability of supporting evidence is expressed as being either High, Moderate or Low.

Table 7.1: Definition of positive and negative effects

Positive	A change that improves the quality of the environment e.g. by increasing species diversity extending habitat or improving water quality. Positive impacts may also include halting or slowing an existing decline in the quality of the environment.
Negative	A change which reduces the quality of the environment e.g. destruction of habitat, removal of species foraging habitat, habitat fragmentation, pollution

- 7.28. Following impact characterisation, assessments are made based on professional judgement, as to whether there would be any corresponding loss of integrity (of a Site or ecosystem) or whether the conservation status (of a habitat or species) is likely to be affected, i.e. whether the magnitude of impact(s) would be 'significant' in ecological terms. In this case, loss of woodland and grassland habitats overall will not be mitigated/compensated as the Development Proposal is for remediation only. Site clearance will be total with the possible exception of some trees and habitats around the Site margins; hence there will be a loss of integrity for woodland and grassland habitats.
- 7.29. As indicated in the CIEEM guidance, the impact may influence the conservation status and integrity of receptors, and effects may be judged to be significant in ecological terms even at the Site level.
- 7.30. Regarding cumulative assessment, two types of cumulative effects will be assessed:
- Type 1 Effects: The combination of individual effects (for example noise, dust and visual effects) from a development on a particular receptor; and
 - Type 2 Effects: Effects from several committed developments, which individually might be insignificant, but when considered together could create a significant cumulative effect.

Baseline Conditions

- 7.31. The Site, as defined by the planning application boundary is c.20 hectares (ha) in extent and comprises semi-natural broad-leaved woodland, dense scrub and grassland. The Site is located to the south of the A62, with the Rochdale Canal running along the northern Site boundary, Ten Acres Lane lies beyond the western boundary, a residential estate including Briscoe Lane Academy and Day nursery is located to the south with residential and retail development to the east.
- 7.32. The Site is relatively isolated from other semi-natural habitats other than a potential link along the Rochdale Canal westwards and the well vegetated railway embankments to Clayton Vale and the River Medlock to the south.
- 7.33. The Rochdale Canal Special Area for Conservation (SAC) and Site of Special Scientific Interest (SSSI) is located some 1.2km to the north-east of the Site. The non-designated section of the Rochdale Canal abuts the northern Site boundary.
- 7.34. The woodland and grassland (mosaic) habitats on Site are also noted on DEFRA's MAGIC inventory as being of Principal importance (NERC s.41) for conservation (Priority Habitats) for Deciduous Woodland and Open Mosaic Habitats on Previously Disturbed Ground (OMH). However with further interrogation, in regard to these habitats, the Ecological Assessment (TEP 2020) concludes that neither are present stating with respect of woodland that *'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'*. Regarding OMH the Appraisal states *'...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'*. For the purposes of the assessment it is considered that Priority habitats are absent from Site.
- 7.35. The baseline conditions are fully described in the Technical Appendices 7.1-7.55 (inclusive), Technical Appendix 7.1 providing a summary of the baseline for each receptor and the likely impacts thereon. The geographical value (sensitivity) of each of the receptors potentially exposed to impacts is as follows:
- Rochdale Canal SAC/SSSI and Hollinwood Branch Canal SSSI are of **International** and **National** Value (respectively).
 - Non-designated sections of the Rochdale Canal adjacent and downstream from the Site are of **County** value.
 - Woodland and grassland habitats, including LBAP Priority Grasslands of High Ecological Value on Areas of Previously Developed Land are of **County** value.

- Foraging and Commuting Bats. A limited assemblage and absence of roosts. Foraging and commuting assemblage are of **Local** value.
- Slow worm *Anguis fragilis*. A small population on Site is of **Local** value.
- Breeding birds. A range of widespread species were recorded during the surveys, of **Local** value.

- 7.36. In addition to the above receptors, Invasive non-native species, namely Japanese knotweed *Reynoutria japonica* and pontic rhododendron *Rhododendron ponticum* are present within the woodland on Site, with Nuttall's waterweed *Elodea nuttallii* and New Zealand pygmyweed *Crassula helmsii* recorded from the survey of the adjacent Rochdale Canal. These species are relevant to the assessment and are therefore considered throughout the assessment.
- 7.37. The TEP reports conclude that no badger *meles meles*, water vole *Arvicola amphibius* or otter *Lutra lutra* were recorded on Site, with no implications from the remediation proposals for these species. They are scoped out from further assessment. In the absence of survey data, no assessment has been made on impacts to invertebrate assemblages.

Future Baseline

- 7.38. Currently the Site is unmanaged broadleaved woodland, scrub and grassland set within an urban part of Manchester. In the continued absence of management the central and eastern parts of the Site are anticipated to continue to develop into mature, closed canopy broadleaved woodland which may develop greater species diversity over the long term, depending on the proliferation of non-native species.
- 7.39. Grassland habitats in the western parts of the Site appear to be relatively stable communities, with little scrub incursion limited to scattered hawthorn and willow. This is evidenced in satellite images of the Site dating from 2000 onwards which generally show the woodland becoming more closed over time but the grassland remaining open in character. This is potentially due to the presence of underlying mineral and nutrient deficient soils resulting from previous industrial use and subsequent clearance. These areas are not anticipated to change significantly in the continued absence of management.
- 7.40. Within the woodland and grassland areas it is reasonably likely that the continued absence of intervention would result in the development and expansion of stands of Japanese knotweed and pontic rhododendron. This would result in some detriment to woodland ground flora species diversity.
- 7.41. It is notable that the Site is allocated in the Local Plan for housing and as such the future baseline is reasonably likely to fundamentally change in character subject to the construction of a residential development. In this regard there are two likely scenarios, the first being that a residential development will be taken forwards. This development will be subject to a separate planning application to follow the application for remediation of the Site. The second scenario is that if for unknown reason(s) the residential development is delayed, the Applicant has committed to wildflower meadow seed planting, across the Site if construction works for the redevelopment of the Site have not commenced within 1 year of the completion of the remediation works. This will ensure that should planning for the remediation of the site be granted, a beneficial habitat will be created either as a result of compensation included in the residential scheme or via wildflower meadow plantings.
- 7.42. This chapter is concerned solely with the remediation of the site, and therefore assesses effects based on the details within that application. The final condition of the site is assumed to be the (recently) remediated site, of bare earth; with none of the potential ongoing scenarios discussed in 1.42 (above) being of relevance to this assessment.

Identification and Evaluation of Significant Effects

- 7.43. An assessment of likely significant effects of the Proposed Development on the ecological features identified above has been undertaken based on the proposal to remediate the Site and create a development platform. The outline Remediation Strategy is submitted as part of this Remediation

Application (Wardell Armstrong 2020). In summary this will involve total vegetation clearance across the Site and mainly in situ treatment of contaminated materials prior to compaction/stabilisation of the Site. It is understood that no vegetation within the Site will be retained through this process.

- 7.44. Given the nature of the proposals there will be no inherent design mitigation and no provision for green infrastructure, landscape plantings or ecological compensation within the Site boundary. Furthermore, there will be no compensation for loss of habitats external to the Site (e.g. via biodiversity offsetting).
- 7.45. Since the Development Proposal relates to the remediation of the Site there will be no construction and operational phase assessment as would ordinarily be the case. Impacts to identified ecological receptors are considered in the light of the Phase II Interpretative Geo-Environmental Report (Wardell Armstrong 2020) which includes information on the existing contaminated status of the Site. Historically, the Site (or parts of it) has been subject to various former industrial uses including as a former brickworks, clay pit, and landfill Site for non-hazardous building and industrial waste. The Ground Investigation has proven chemical contamination of made ground on the Site and in surface and groundwaters by a number of contaminants. The Remediation Strategy will deal with the contaminants in the long term and ensure there is no mobilisation of contamination to off Site receptors during the works.

Rochdale Canal SAC/SSSI and Hollinwood Branch Canal SSSI

- 7.46. Potential adverse effects to the Rochdale Canal SAC are considered here in general terms, although further detail is given within a Report to Inform a Habitats Regulations Assessment (Wardell Armstrong 2020), which provides information for the Competent Authority to consider adverse effects on the SAC in particular and thus to discharge its obligations under the Conservation of Habitats and Species Regulations (2017 as amended). The statements and conclusions made in this report are therefore made without prejudice to any further, more detailed assessment.
- 7.47. There will be no direct loss of SAC habitat as a result of the Proposed Development which lies entirely out with the SAC. Given that the Canal is clay lined, there will be no lateral incursion of potentially contaminated groundwater from the Proposed Development. Impacts considered from the remediation proposal are therefore restricted to incidental run-off of contaminated surface water.
- 7.48. Given that the Rochdale Canal is located adjacent to the northern boundary of the Site (within 10m) and this is linked to the Rochdale Canal SAC some 1.2Km to the east, any mobilisation of surface water run-off from the Site during remediation has the potential to indirectly impact the SAC.
- 7.49. At the time of writing, the base load contamination of the Canal is being tested, but no results are available. Similarly the level of contamination of surface waters on Site is not currently available, nonetheless it is reasonable to assume that some level of background contamination is present in the surface waters on Site and hence this may be mobilised to the Canal during periods of heavy rainfall, in the absence of mitigation. It should be noted that the current botanical composition of the SAC has developed under the influence of such conditions and hence either there is no significant contamination of the SAC or the plant communities are tolerant to any (presumably minor) background contamination levels. It should also be noted that the Aquatic Macrophyte Survey (Goldsmith Ecology2020) did not record any of the qualifying species of the SAC in the stretch of the Canal which lies adjacent to the Site.
- 7.50. The qualifying feature of the SAC is the presence of colonies of the nationally scarce pondweed Floating water-plantain *Luronium natans*, which is a European protected species. The sensitivity of the species to water borne pollutants/contamination is unknown although this impact is not listed as conservation objective for the SAC nor is it listed in the Site Improvement Plan³ (Natural England 2014). It is also notable that the flow of the Canal is to the west i.e. away from the SAC although flows may be negligible in the canal's downstream reach. Given the Canal flows away from the SAC, no or very limited contamination pathways exists for any released contaminants to impact the SAC or its qualifying species

³ <http://publications.naturalengland.org.uk/publication/6227629417955328>

assemblages and hence the magnitude of effect would be **negligible** on the Rochdale Canal SAC/SSSI and not significant.

- 7.51. Similarly, impacts to the Hollinwood Branch Canal SSSI are of **negligible magnitude** and not significant, given the lack of ecological connectivity with the Proposed Development Site and the separation distance of >3km.

Non-Designated sections of the Rochdale Canal

- 7.52. The remediation proposals, in the absence of mitigation could lead to the mobilisation of contaminants into surface water, and run-off of such into the adjacent Canal. This is exacerbated by the Site being elevated relative to the Canal in places, and by the necessary removal of vegetation prior to agitation of the surface soil layers. In addition to mortality from contamination, sediment run-off is likely to result in adverse impacts to spawning fish and invertebrates downstream.
- 7.53. The magnitude of the potential impact of contaminants on the faunal assemblage supported by the Canal adjacent and downstream of the Site cannot be quantified, although effects could be severe and permanent especially to fish and invertebrate receptors, depending on the type and concentration of pollutants. In the absence of mitigation this impact is likely to be Significant and adverse at up to County level. Confidence in the assessment is low given the inherent uncertainties regarding the type and nature of contamination given that testing of surface contaminants is not complete at the time of writing.

Woodland and grassland habitats, including LBAP Priority Grasslands of High Ecological Value on Areas of Previously Developed Land

- 7.54. Save for a small construction compound which has been cleared lying adjacent to the western Site boundary, the Site is dominated in broad terms by these two habitats, woodland being present in the eastern and central parts of the Site and open grassland in the west. The remediation works will result in the total loss of these habitats and hence an impact which is permanent, of high magnitude and not reversible⁴. TEP have confirmed that neither habitat accords with the equivalent NERC s41 Priority habitat although it is considered that the grassland does meet the criteria of the equivalent local Biodiversity Action Plan priority habitat. Given the County status of the grassland habitats, as well as the current (Local) and potentially higher future value of the woodland the total loss of such habitats is **significant adverse** at up to **County** level. Confidence in this assessment is High.

Foraging and Commuting Bats

- 7.55. The remediation will result in the loss of the Site as a foraging and commuting resource for bats, due to the removal of all vegetated habitats. The Rochdale Canal, which abuts the northern boundary of the Site is likely to remain a viable alternative location for commuting bats especially if (as intended) boundary vegetation is retained between the Site and the Canal.
- 7.56. Bats which typically forage over the woodland and around the woodland edge would likely be displaced from the Site into adjacent habitat. The loss of the vast majority of foraging habitat is not likely to result in the abandonment of local roosts, given the wide availability of foraging resources elsewhere in the locality. The impact will be of moderate magnitude, is permanent and reversible in the event that alternative habitat is provided. The loss of foraging and commuting habitats on bats would be **significant adverse** at **Local** level. Confidence in this assessment is High.

⁴ New woodland would take at least 30years to reach maturity.

Slow Worm

- 7.57. A small population of slow worm was identified on Site by the TEP reptile surveys (TEP 2020). The peak count of 3 individuals was recorded within the central/western grassland habitats on Site although the woodland may also be used for hibernation. The habitats on Site will be lost to the Proposed Development and in the absence of mitigation the slow worm population would also be lost as a consequence of the remediation process. This impact will be fully mitigated by the proposed translocation and future management of a suitable receptor Site, within Manchester. In the absence of mitigation, effects will be of High magnitude permanent and not reversible. The loss of the Site supported population would therefore be **significant adverse** at **Local** level. Confidence in this assessment is High.

Breeding Birds

- 7.58. Breeding bird assemblage of species typically associated with urban and sub-urban environments, parks and gardens was identified by the TEP surveys (TEP 2020). The Fuller (1980) classification system categorises the Site as being of local value to breeding birds, based on the number of species identified. Notable possible/probable breeding species on Site include bullfinch *Pyrrhula pyrrhula*, dunnoek *Prunella modularis*, song thrush *Turdus philomelos* mistle thrush *Turdus viscivorus* and willow warbler *Phylloscopus trochilus* all of which were recorded in low numbers.
- 7.59. The supporting breeding habitats for all species will be lost to the Proposed Development via the remediation proposals. This will result in the displacement of individuals into adjacent habitats. In the event that adjacent habitats are at carrying capacity, the displacement effect would be wider and may lead to the loss of certain individuals. The impact will be of moderate magnitude, is permanent and reversible in the event that alternative habitat can be provided. The loss of breeding bird habitats is **significant adverse** at **Local** level. Confidence in this assessment is High.
- 7.60. In addition to the above assessment, the active nests of all wild birds receive legal protection and the removal of vegetation during the breeding bird season is likely to result in the destruction of active nests. Mitigation will therefore be required to ensure legal compliance in this regard.

Mitigation Measures

- 7.61. This section identifies mitigation measures required to avoid, reduce or offset the potential for adverse impacts, where mitigation is available. Table 7.2 provides a summary of mitigation measures to be delivered by the Proposed Development, each of which is discussed below.
- 7.62. No mitigation is required for the Rochdale Canal SAC/SSSI Site as there will be no adverse impacts.
- 7.63. The non-designated section of Rochdale Canal may be impacted by contaminated and/or silt laden run-off during remediation although the application of a number of standard mitigation measures will ensure that the risk of this is minimised. Such measures will be included within a Construction Environmental Management Plan (CEMP) for which a planning condition is anticipated. Measures are anticipated to include bunding of the Site perimeter and collection and treatment of surface water followed by discharge into an approved foul water drain. The remediation of the Site itself is expected to result in a reduction in risk of contamination of surface waters and run-off. This may be beneficial once the Development Proposals are complete.
- 7.64. No mitigation is available for woodland and grassland habitats on Site as the remediation strategy will involve their loss, with the exception of some peripheral habitat/trees, where this is feasible.
- 7.65. Impacts to bats foraging along the Rochdale Canal will be mitigated by ensuring that temporary lighting required during remediation of the Site, if this is timed to occur during the period April – October (inclusive), is directed away from the foraging corridor along the adjacent Rochdale Canal.

7.66. Impacts to the Site supported population of slow worm will be mitigated by the capture and translocation of the population to a suitable off-site receptor area. This process can only occur during the active period which, broadly speaking, is between March and October (inclusive), ideally during spring, and depending on weather conditions which influence onset and emergence from torpor.

7.67. A Reptile Mitigation Strategy will be produced and approved by the Local Authority prior to commencement, including the following broad provisions (extracted from Natural England's Standing Advice) relating to the selection of receptor Site:

The receptor Site should:

- *Be as close as possible to the development Site, and within the same local planning authority if possible;*
- *Be at least the same size as the habitat that will be lost, and larger if the habitat to be lost is high quality (you can provide smaller habitat if it's substantially better quality);*
- *Serve the same function as the habitat to be lost, e.g. It has hibernation features;*
- *Have similar habitat to the area that will be lost, including water bodies;*
- *Not currently support slow worm, but can be improved to make it suitable; and*
- *Be safe from future development and managed in the long term.*

7.68. The translocation will be undertaken by a suitably qualified ecologist, acting in accordance with the Reptile Translocation Strategy. No potentially harmful Site clearance work will commence until the translocation is complete. If necessary, the receptor Site may need to be enhanced prior to translocation and ongoing management/monitoring will be required, the details and duration of such is to be included in the Reptile Translocation Strategy.

7.69. Mitigation for breeding birds will comprise ensuring that the timing of vegetation removal avoids the bird breeding season (namely March to August) or follows a detailed survey by a suitably experienced Ecologist which confirms that no nests are present in the affected area immediately prior to works commencing. In the event that active birds' nests are identified, it will be necessary to establish a protective buffer of undisturbed vegetation around the nest. The extent of the buffer will depend upon the species concerned and would be advised by the suitably experienced ecologist.

Table 7.2 – Mitigation Measures

Receptor(s)	Likely Significant Effects	Mitigation Measures
Rochdale Canal SAC/SSSI	Surface water run-off and accidental pollution	No mitigation required (no adverse effects).
Undesignated sections of Rochdale Canal	Surface water run-off and accidental pollution	CEMP protocols including bunding of the Site, collection and treatment of surface water and discharge to foul sewer.
Woodland and grassland habitats, including LBAP Priority Grasslands	Habitat loss/clearance	None available.
Foraging and Commuting bats	Loss of foraging and commuting habitat	Lighting of Site during remediation works to avoid Rochdale Canal corridor.
Slow worm	Population loss	Capture and Translocation of individuals to off Site receptor location with ongoing management/monitoring.

Receptor(s)	Likely Significant Effects	Mitigation Measures
Breeding Birds	Habitat loss and displacement	Timing of vegetation removal to avoid bird breeding season (namely March to August) unless a detailed survey by a suitably experienced Ecologist has confirmed that no nests are present in the affected area immediately prior to works commencing.

Cumulative Effects

- 7.70. Appendix 2.2 lists the four committed and likely developments coming forward in the locality. There are five developments within a 2km radius of the Site which have planning approval but are not yet built and a further two developments which are not yet fully consented.
- 7.71. The closest Site to the Proposed Development is for the Erection of a part 4 (plus ground), part 5 (plus ground) storey building to form 100 residential apartments (Use Class C3a) together with ground floor commercial floorspace (Use Classes A1, A2, A3, B1 and D1) (211 sqm) and erection of 39 two and three storey dwelling houses (Use Class C3a) along with associated access, landscaping, boundary treatment and car parking (Planning reference 125990/FO/2020). No Environmental Statement is available for this development although impacts appear to be minor given the lack of vegetated habitats. There are no adverse cumulative impacts.
- 7.72. All other Developments appear to be located within urbanised environments with limited habitat availability for ecological receptors and hence limited or absent adverse impacts. Only one Site which is located on an area of semi-natural grassland habitat reports (presumably residual) impacts to invertebrates, amphibians, reptiles, nesting and foraging birds and hedgehogs this being for the erection of a battery energy storage facility (planning reference 127629/FO/2020) on Land To The South West Of Moston Vale, Manchester. The only potential receptor exposed to cumulative effects would be breeding birds although given the relatively small area of habitat loss from the battery energy storage facility no significant cumulative impacts will be apparent.
- 7.73. In conclusion, there are no proposed cumulative impacts on any of the ecological receptors considered in this Chapter.

Residual Effects

- 7.74. Subject to the mitigation measures outlined above being implemented, no significant residual adverse effects are anticipated to Rochdale Canal SAC/SSSI and the non-designated section of the Canal which abuts the Site. Upon translocation, the small, and potentially dwindling slow worm population will not be subject to adverse effects and may benefit from the process in the even that management of the receptor Site is also secured.
- 7.75. The inevitable loss of vegetated habitats on Site as part of the remediation process will result in the total loss of woodland and grassland habitats, including LBAP Priority Grasslands and hence there will be a residually **significant adverse impact** at up to County scale.
- 7.76. The loss of Site habitats will also result in residually **significant adverse impacts** at Local scale for Foraging and Commuting bats and Breeding Birds.
- 7.77. A summary of the residual effects is provided in Table 7.3

Table 7.3 – Summary of Receptors, Likely Significant Effects, Mitigation Measures, and Residual Effects

Receptor(s)	Likely Significant Effects	Mitigation Measures	Residual Effects
Rochdale Canal SAC/SSSI	Surface water run-off and accidental pollution	No mitigation required (no adverse effects).	Neutral

Receptor(s)	Likely Significant Effects	Mitigation Measures	Residual Effects
Undesignated sections of Rochdale Canal	Surface water run-off and accidental pollution	CEMP protocols including bunding of the Site, collection and treatment of surface water and discharge to foul sewer.	Neutral (potentially beneficial)
Woodland and grassland habitats, including LBAP Priority Grasslands	Habitat loss/clearance	None available.	Significant Adverse (County)
Foraging and Commuting bats	Loss of foraging and commuting habitat	Lighting of Site during remediation works to avoid Rochdale Canal corridor.	Significant Adverse (Local)
Slow worm	Population loss	Capture and Translocation of individuals to off Site receptor location with ongoing management/monitoring.	Neutral
Breeding Birds	Habitat loss and displacement	Timing of vegetation removal to avoid bird breeding season (namely March to August) unless a detailed survey by a suitably experienced Ecologist has confirmed that no nests are present in the affected area immediately prior to works commencing	Significant Adverse (Local)

Reference List

7.78. This ES Chapter has been prepared by reference to the following:

- CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland*.
- TEP (2020), *Ecological Assessment (including Extended Phase I Habitat Survey and Desk Study)*
- Goldsmith Ecology (2020) *Baseline Aquatic Macrophyte Survey*
- TEP (2020) Bat Survey Report
- TEP (2020) Breeding Bird Survey
- TEP (2020) Reptile Survey Report