Proof of Evidence on Ecology Matters on Behalf of Barnsley Metropolitan Borough Council

APPEAL BY: Network Space Development Limited

SITE: Land North of Shaw Lane, Carlton, Barnsley, S71 3HH

PLANNING INSPECTORATE REF: APP/R4408/W/24/3341097

B.M.B.C REF: 2022/0115

Contents

1. Introduction

1.1 Qualifications

1.1.1 My name is Katie Lawrence. I hold a BSc in Applied Ecology (Manchester Metropolitan University). I am a Full Member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

1.1.2 Since February 2022 I have held the post of Planning Ecologist, employed by Barnsley Metropolitan Borough Council within the Planning Policy section of the Council's Directorate of Growth and Sustainability. During my time working for the Council I have assessed ecological survey information provided with planning applications from small schemes through to masterplan framework applications.

1.1.3 Prior to working at the Council, I spent 17 years working in Ecological Consultancy undertaking surveys and preparing reports to inform planning applications.

1.1.4 During my time working as an ecological consultant, I assisted in the preparation of a Site of Special Scientific Interest (SSSI) Assessment required by Natural England (NE) in relation to a residential development proposed within close proximity to a SSSI. The assessment considered the features of importance warranting the SSSI designation, the potential impact of increased recreational use as a result of the proposed development, and mitigation measures to be adopted with the aim of avoiding adverse impacts upon the SSSI.

1.1.5 I can confirm that the evidence which I have prepared and provide in this proof of evidence is true and is given in accordance with the guidance of the professional institutions of which I am a member (CIEEM), irrespective of by whom I am instructed. I can confirm that the opinions expressed are my true and professional opinions.

1.2 Background information

1.2.1 My evidence is concerned with the case for the Local Planning Authority ("BMBC" or "the Council) in respect of the appeal submitted by Network Space Development Limited ("The Appellant") against the refusal of an outline planning application (reference (2022/0115) "the Planning Application") at Land North of Shaw Lane, Carlton ("the Site").

1.2.2 In preparing this evidence I undertook a visit to the site on 12th June 2024. My initial visit to the site was on 1st March 2022.

1.3 Purpose of Evidence

1.3.1 I have been asked by the Council to provide evidence in relation to ecology matters relating to this case. In this proof of evidence, I shall:

- Highlight omissions in what was submitted during the planning application process and summarise how the application did not accord with planning policy in relation to biodiversity (Sections 3.1, 3.2, 4 & 5).
- Discuss the importance of the Dearne Valley Wetlands SSSI and the possible adverse effects of the proposed development on this designated site (Sections 3.2 and 3.3);
- Review a SSSI assessment submitted by the appellant on the 29th of June 2024 (Section 6).

2. Relevant Planning Policy and Legislation

2.1 National Planning Policy

2.1.1 Paragraphs 180, 185 and 186 of the NPPF are of relevance to this case.

2.2 Local Planning Policy

2.2.1 The following policy within the Barnsley Local Plan1 is of relevance to this case.

- Policy BIO1 Biodiversity and Geodiversity.

2.3 Wildlife and Countryside Act 1981 (As amended)

2.3.1 SSSIs safeguard England's most important areas of natural heritage. The Wildlife and Countryside Act 1981 ("the Act") and subsequent amending legislation (Countryside Rights of Way Act 2000 and the Natural Environment and Rural Communities Act 2006) places a legal duty on NE to act for the benefit of SSSIs and take reasonable steps, consistent with the proper exercise of its functions, to further the conservation and enhancement of the special scientific interest of SSSIs (Section 28G of the Act).

2.3.2 In order to provide all SSSIs with protection from potentially harmful activities, the Act requires public bodies proposing to authorise or permit others to carry out operations that may be likely to damage the special interest of a SSSI (whether within or outside the boundary of a SSSI) to first seek NE's advice. NE issues advice (section 28I of the Act) in response to a consultation from a public body when it is deciding whether to authorise or permit an operation proposed by others. NE may advise against giving permission for operations that may damage the special interest of the site or advise that conditions be attached to a permission to prevent or mitigate the operations causing damage.

[1] CD 3.1 Barnsley Local Plan (2019)

2.3.3 If a public body decides to grant permissions for operations contrary to NE's advice, it is required by the Act to give NE further written notice. This notice should include an explanation of how it has considered any advice previously provided by NE. Additionally, the public body is required to demonstrate how it has weighed the balance between differing interests, including the special interest of the SSSI. The public body should also demonstrate how it has considered alternative methods of carrying out the operations to minimise adverse impact. Where NE remains concerned about the significance of the likely impacts of a site's notified features, it may consider taking further action, including a referral of the case to the Secretary of State.

3. Review of ecology information submitted

3.1 Introduction

3.1.1 This section highlights where it is felt there are omissions or queries with information provided with respect to ecology as part of this case. It also discusses the importance of the SSSI and the potential adverse effects of the proposed development on this designated site.

3.2 Lack of SSSI assessment

3.2.1 A SSSI assessment was requested following BMBC consulting NE shortly after the planning application was made. NE sent a planning consultation letter (refer to Appendix 1) to the Council dated 12th April 2022 advising that further information was required to determine impacts on the designated site. NE advised that the following should be considered within the SSSI assessment:

- Potential impacts on water quality;
- Potential impacts from increased recreational pressure;
- Potential impacts on birds using functionally linked land associated with the Dearne Valley Wetlands SSSI; and
- Potential impacts on air quality.

3.2.2 NE advised that without this information they may need to object to the proposal.

3.2.3 In addition to the Council consulting NE in regard to the planning application, Yorkshire Wildlife Trust (YWT) were also consulted on the basis that this organisation manages Carlton Marsh Nature Reserve (included as a parcel of the Dearne Valley Wetlands SSSI and that which is within close proximity to the application site). YWT provided their consultation response on the 12th April 2022 (refer to Appendix 2) and raised concerns relating to the proximity of the proposed development in

relation to the application site and lack of impact assessment submitted as part of the application.

3.2.4 A SSSI assessment was not submitted with the application. The Appellant submitted an Ecological Addendum [2] on the 22nd September 2023 which includes a brief assessment ruling out any direct or indirect impacts upon the SSSI as a result of the development, addressing impacts on water quality, air quality and birds using functionally linked land associated with the SSSI. The addendum did not consider potential impacts from increased recreational pressure.

3.2.5 The assessment included within the Ecological Addendum relating to potential impacts on air quality was informed by the Air Quality Assessment[3] submitted with the planning application. The Air Quality Assessment indicates that impacts to the SSSI during the construction stage are not predicted to be significant and impacts during the operational phase are determined to be negligible; however, NE requested further information as set out in their consultation response. This included assessing the potential effects to the methodology set out in guidance note NEA001 "Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitat Regulations", clarification on assessments relating to nitrogen and acid deposition, considering impacts of ammonia sourced from traffic emissions and assessing in-combination impacts from other relevant plans/projects. An updated Air Quality Assessment addressing these points has not been submitted.

3.2.6 The Flood Risk and Drainage Assessment[4] submitted with the application is referenced within the Ecological Addendum in relation to the potential impact upon the SSSI. The Ecological Addendum details that no indirect hydrological impact upon the SSSI through pollution or runoff is anticipated from the development. NE's consultation letter advised that they required clarification on the proposed drainage strategy and where the surface water is likely to be discharged to. An updated Flood Risk and Drainage Assessment was submitted in June 2022 as part of the application following NE's consultation letter. The senior engineer at BMBC confirms that the assessment sets out that the proposed attenuation ponds will aim to mimic the greenfield runoff and the final outfall for Yorkshire Water's surface water is to Shaw Dyke which in turn runs through the SSSI. With the Sustainable Urban Drainage system that is proposed it is anticipated that pollution of the water course will be avoided.

[2] CD 6.7 Ecological Addendum dated September 2023
[3] CD 6.1 Air Quality Assessment dated 28 January 2022
[4] CD 6.10 Flood Risk Assessment dated June 2022

3.2.7 In relation to the potential impacts on birds using functionally linked land associated with the SSSI, the Ecological Addendum states the following: *"There are no habitats on the proposed development site that offer suitable habitat for qualifying species of the SSSI. Therefore, there will be no indirect impact to aquatic bird assemblages nor the flora."* There is no further evidence or justification as to how the ecologist has concluded that this is the case. The consultation letter from NE advises how this element of the assessment should be considered by undertaking the following:

- A data search with the local Ecological Data Centre;
- Consultation with the Council's Ecologist;
- Consultation with local bird groups and other organisations that may hold relevant information; and
- A desk-based assessment – using aerial photography, mapping, habitat maps and relevant ecological literature – of the suitability for SSSI birds of the habitats present on the proposed site and adjacent areas.

3.2.8 This level of information has not been provided as part of the application and no contact was made with me by the appellants ecologist. The Ecological Addendum details records that were obtained from Barnsley Biological Record Centre of species within proximity of the proposals site and the SSSI but does not include information on those received relating to bird species.

3.2.9 As detailed, the Ecological Addendum did not consider potential impacts from increased recreational pressure. The SSSI is located approximately 40m from the proposal site.

3.2.10 Recreational impacts on 94 YWT nature reserves in proximity to residential developments were assessed as part of a YWT study carried out over the period of a year (article included within Appendix 3). A settlement was defined in the study as any place made up of twenty or more dwellings. The study considered five types of damage and disturbances, as follows:

- litter and fly-tipping;
- damage and disturbance by dogs and other domestic animals;
- anti-social behaviour including vandalism, graffiti and barbeques;
- theft and destruction of wildlife and property; and
- damage by vehicles.

3.2.11 The study found that with exception of damage by vehicles, reports of the other types of damage and disturbance were greatest at reserves within 100m of a settlement. Furthermore, each of the five types of damage identified generally occurred more frequently the closer the reserve is to a settlement. The study concluded that nature reserves

within 100m of settlements are vulnerable compared to secluded reserves located over 1km from the nearest settlement.

3.2.12 The study therefore indicates that there is likely to be an adverse impact upon the SSSI from increased recreational activity as a result of the proposed development, with it being located within 100m of the designated site. One of the purposes of the SSSI assessment would have been to assess the potential level of impact due to increased recreational activity and identify how this could be mitigated.

3.3 Importance of Dearne Valley Wetlands SSSI

3.3.1 Dearne Valley Wetlands is a SSSI notified under section 28 of the Wildlife and Countryside Act 1981 and is therefore of importance at a National Level.

3.3.2 The SSSI comprises a network of 22 wetland, scrub and woodland areas that extends through the catchment of the River Dearne. SSSI units 1 and 2 of the 22 units occur within close proximity of the application site. The SSSI is post-industrial urban fringe comprising former mining settlements set in a mosaic of farmland, woodland, wetland and floodplain habitats. Large areas of open water and associated habitats within the River Dearne catchment have been created as a result of post-industrial restoration and these areas now support a substantial ornithological interest.

3.3.3 The SSSI is of interest for the following nationally important features:

- Breeding gadwall *Mareca strepera*, shoveler *Spatula clypeata*, garganey *Spatula querquedula*, pochard *Aythya ferina*, bittern *Botaurus stellaris*, black-headed gull *Chroicocephalus ridibundus* and willow tit *Poecile montanus klienschmidti*.
- Non-breeding gadwall *Mareca strepera* and shoveler *Spatula clypeata.*
- Diverse assemblages of breeding birds of Lowland damp grasslands, Lowland scrub and a mixed assemblage of Lowland open waters and their margins and Lowland fen.

4. Summary of ecology planning policy objections to the application

4.1.1 The application as proposed may be contrary to Paragraph 186 of the NPPF:

(b) 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 interest, and broader impacts on the national network of Sites of Special Scientific Interest;

as a SSSI assessment fully addressing the elements set out by NE was not submitted. The need for the proposals to conserve and enhance designated wildlife sites of national significance is repeated in Local Plan Policy BIO1.

4.1.2 Significant adverse effects may result from the proposed development. Namely impacts to the Dearne Valley Wetlands SSSI as a result of air pollution, increased recreational activity and loss of functionally link land.

5. Summary

5.1.1 I summarise below the main points raised in my evidence.

5.1.2 A SSSI assessment was requested following consultation with NE shortly after the planning application was made. NE's consultation letter set out a number of potential impacts that the assessment should consider including impacts on air quality, water quality, increased recreational pressure, and potential impacts on birds using functionally linked land associated with the SSSI.

5.1.3 A SSSI assessment, fully addressing each of the elements included within NE's consultation letter was not submitted as part of the planning application. The lack of SSSI assessment means there is:

- No full consideration of the significant effects that the proposal may have on the SSSI; and
- No evidence that consideration has been given to avoiding, mitigating and compensating for potential negative ecological impacts on the SSSI.

5.1.4 Units 1 and 2 of the Dearne Valley Wetlands SSSI occur within approximately 40m of the application site. The designated site comprises a network of 22 wetland, scrub and woodland areas of national importance to an assemblage of bird species. The development may result in a significant adverse effect on ecological features of importance at a National Level.

5.1.5 The NPPF requires that development on land within or outside a SSSI, and which is likely to have an adverse effect should not normally be permitted, unless the benefits of the development in the location proposed clearly outweigh its likely impact. Local Plan Policy BIO1 requires planning applications to conserve and enhance designated wildlife sites of national significance.

5.1.6 Due to the lack of SSSI assessment in support of the planning application, the LPA and NE cannot review the potential impact of the proposals upon the SSSI and any mitigation measures required. The omission of this information does not allow for an informed recommendation in relation to the planning appeal proposal.

6. Review of SSSI assessment

6.1 Introduction

6.1.1 The appellant submitted a SSSI assessment (consultation draft – without prejudice) on the 29th of June 2024 (refer to Appendix 4).

6.1.2 The SSSI assessment was submitted to NE on the 2nd of July 2024 as a re-consultation following their earlier consultation response. YWT were also re-consulted on the same date.

6.1.3 The SSSI assessment considers each of the elements raised by NE in their consultation response, including impacts upon water quality, air quality, loss of functionally linked land and impacts arsing from increased recreational use.

6.2 Potential impacts from increased recreational pressure

6.2.1 The first potential impact to be considered within the assessment is increased recreational pressure. The assessment considers that there is no evidence to suggest there will be adverse effects on the SSSI's features of interest, with one of the justifications including that NE has not identified any threats from recreational pressure in their SSSI notification documents; however, Annex 3 of NE's SSSI notification document (refer to Appendix 5) does list recreational activities as a potential operation which could damage features of special interest on the site and an operation which would require consent from NE.

6.2.2 The proposals will introduce a residential development of over 200 dwellings within approximately 40m of the SSSI. As discussed in section 3.2 of this document, a study undertaken by YWT identified that incidences of damage and disturbance were generally recorded at a greater and more frequent level on YWT nature reserves located within 100m of a settlement. This study would suggest increased recreational pressure upon the SSSI is likely to occur as a result of the proposals and I therefore disagree with the SSSI assessment in this regard.

6.2.3 Despite the conclusion within the SSSI assessment, the document does set out that the appellant is willing to fund improvements to facilities at the SSSI, such as improved signage, waste bins and fencing.

6.2.4 In addition to the suggested improvement of facilities at the SSSI, further measures to avoid potential recreational impacts could include the provision of an interpretation board within the proposed development site promoting alternative local walks, such as Wharncliffe Woodmoor, the area identified within the Carlton Masterplan Framework[5] as the neighbourhood greenspace for the MU3 allocation and the Barnsley Canal towpath.

6.2.5 It is considered that by implementing the above improvements and measures, impacts as a result of increased recreational activity are likely to be addressed.

6.3 Potential impacts on water quality

6.3.1 The SSSI assessment sets out that the proposals will have no effect upon the SSSI through change in hydrology.

6.3.2 This assessment is in agreement with that given by the senior engineer at BMBC, set out in paragraph 3.2.6 of this document.

6.4 Potential impacts on birds using functionally linked land associated with the Dearne Valley Wetlands SSSI

6.4.1 The SSSI assessment concludes that the proposed development site cannot be considered as functionally linked land. This element of the assessment has been informed by a breeding bird survey and acoustic bird survey, undertaken by the appellants ecologist during spring/summer 2024 (refer to Appendix 6).

6.4.2 Two bird species of conservation concern (priority species under Section 41 of the Natural Environment and Rural Communities Act 2006) and listed within the Dearne Valley Wetlands SSSI citation (yellow hammer and reed bunting) were identified as probable breeders on site during the breeding bird survey. These species were recorded in low numbers across the site. The SSSI assessment considers that these species will potentially continue to use the site once it is developed, with habitats used for nesting, such as hedgerows and standing water within proximity of arable habitat to be retained as part of the proposals. I consider this to be unlikely due to the association of these species to arable habitat, with this becoming more unlikely once the remainder of the MU3 allocation site becomes developed as adjacent semi-natural and arable habitats will be lost.

6.4.3 The acoustic bird surveys recorded a number of species listed within the SSSI citation including black-headed gull, long-tailed tit, lapwing, lesser whitethroat, linnet, snipe and water rail. Lapwing were recorded during

[5] CD 5.2 Carlton Masterplan Framework Delivery Strategy, October 2021

the breeding bird survey, but as a non-breeding species and long-tailed tit were recorded as a possible breeder during the breeding bird survey. Analysis of the recordings indicated irregular use of the site by these species and the site providing a functional linkage to the SSSI has not been demonstrated.

6.4.4 As discussed, the SSSI assessment concludes that the proposed development site cannot be considered as functionally linked land. I do not fully agree with this statement, due to the small number of species associated with the SSSI recorded on-site during the surveys as probably breeding. These species are associated with arable land and due to the loss of such habitat as a result of the proposed development and the eventual development of the remaining allocated site, it is considered that these species will not continue to use the site as breeding habitat; however, due to the small number recorded and with these species not included as those within the reason for notification of the SSSI, it is considered that the proposed development will only have a minor impact in this regard.

6.5 Potential impacts on air quality

6.5.1 The SSSI assessment considers potential impacts on air quality as a result of the proposed development, assessing the potential effects to the methodology set out in guidance note NEA001 “Natural England’s approach to advising competent authorities on the assessment of road traffic emissions under the Habitat Regulations”, as requested in NE’s consultation response.

6.5.2 The assessment concludes that significant effects on air quality as a result of the proposed development can be ruled out. Natural England will advise on whether they are in agreement with this assessment in their awaited consultation response.

6.6 Summary

6.6.1 The SSSI assessment submitted indicates no impact upon the Dearne Valley Wetlands SSSI as a result of the proposed development in relation to air quality, water quality, functionally linked land and recreational activity. I consider it likely that there will be no impact on water quality and that through implementing appropriate mitigation measures, it is likely that the residual impact upon the SSSI as a result of increased recreational activity will be negligible. I disagree with the statement within the assessment that there will be no impact through the loss of functionally linked land but consider that this would likely be a minor impact.

6.6.2 NE have been re-consulted following the submission of SSSI assessment and their response is awaited. If NE agree with the

assessment and have no objection with the proposed development, this will resolve the fourth reason for refusal set out within the decision notice of the planning application[6]; however, the recommendation for conditions to be attached to a permission or further information may be requested.

[6] CD 12.3 Decision Notice (2022/0115)

Appendix 1 – Natural England Consultation Response

Date: 12 April 2022
Our ref: 385680
Your ref: 2022/0115

Customer Services
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

T 0300 060 3900

James Hyde,
Barnsley Council,
PO Box 634
Barnsley
S70 9GG

BY EMAIL ONLY

Dear James Hyde

Planning consultation: 215 dwellings with associated car parking/garages, landscaping, public open space including both equipped and non-equipped areas of play, SUDS and drainage, with details of a new vehicular access onto Shaw Lane.
Location: Land north of Shaw Lane, Carlton, Barnsley, S71 3HH.

Thank you for your consultation on the above dated 07 March 2022, which was received by Natural England on the same date. Thank you also for granting Natural England an extension until 11 April 2022.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

SUMMARY OF NATURAL ENGLAND'S ADVICE

FURTHER INFORMATION REQUIRED TO DETERMINE IMPACTS ON DESIGNATED SITE

As submitted, the application could have potential significant effects on Dearne Valley Wetlands Site of Special Scientific Interest (SSSI). Natural England requires further information in order to determine the significance of these impacts and the scope for mitigation.

The following information is required:

- A SSSI assessment considering:
  - potential impacts on water quality;
  - potential impacts from increased recreational pressure;
  - potential impacts on birds using functionally linked land associated with the Dearne Valley Wetlands SSSI; and
  - potential impacts on air quality.

Without this information, Natural England may need to object to the proposal.

Please re-consult Natural England once this information has been obtained.

WILDLIFE AND COUNTRYSIDE ACT 1981 (AS AMENDED)

Sites of Special Scientific Interest
Natural England notes that the application site is located in proximity to the Dearne Valley Wetlands Site of Special Scientific Interest (SSSI). Based on the plans submitted, Natural England considers that the proposed development could have potential significant effects on the interest features for which the Dearne Valley Wetlands SSSI site has been notified. Natural England requires further information in order to determine the significance of these impacts.

Natural England advises that a SSSI assessment should be carried out to determine the significance of the potential impacts identified below and assess whether the proposal could damage or destroy the features of special interest for which the SSSI is notified.

Please note that if your authority is minded to grant planning permission contrary to the advice in this letter, you are required under Section 28I (6) of the Wildlife and Countryside Act 1981 (as amended) to notify Natural England of the permission, the terms on which it is proposed to grant it and how, if at all, your authority has taken account of Natural England's advice. You must also allow a further period of 21 days before the operation can commence.

Additional Information required

Water quality

Natural England notes that the application proposes to discharge surface water to a sustainable drainage system. However, it is not clear what the details of the proposed drainage strategy are, nor whether surface water is likely to discharge to a watercourse which will run through Dearne Valley Wetlands SSSI. We advise that further information is provided in the SSSI assessment relating to how potential water quality impacts on the SSSI have been considered.

Increased recreational pressure

Due to the close proximity of the proposed development to Dearne Valley Wetlands SSSI, the proposed development could lead to increased recreational pressure on the designated site. We recommend that an assessment of the potential impacts on the designated site from increased recreational access to the SSSI is carried out.

Functionally linked land

Natural England advises that the assessment should have specific regard for the potential for the proposed development site to be functionally linked to the Dearne Valley Wetlands SSSI.

Some SSSIs are classified for rare and vulnerable birds. Many of these sites are designated for mobile species that may also rely on areas outside of the site boundary. These supporting habitats may be used by SSSI populations or some individuals of the population for some or all of the time. These supporting habitats can play an essential role in maintaining SSSI species populations, and proposals affecting them may therefore have the potential to affect the SSSI.

Natural England advises that the potential for offsite impacts should be considered in assessing what, if any, potential impacts the proposal may have on the Dearne Valley Wetlands SSSI.

Natural England advises that the following information will help undertake a SSSI assessment:

- A data search from the local Ecological Data Centre;
- Consultation with the Council's Ecologist;
- Consultation with local bird groups and other organisations that may hold relevant information; and

- A desk-based assessment - using aerial photography, mapping, habitat maps and relevant ecological literature – of the suitability for SSSI birds of the habitats present on the proposed site and adjacent areas.

If there is no evidence that the site is used by SSSI birds, then further surveys may not be required at this stage. Where it is not possible to conclude that the SSSI birds would not use the site, further surveys may be required in order to properly understand the level of use by SSSI birds and any identified impacts on these birds should be avoided or mitigated.

Air Quality

Natural England notes that the potential environmental effects of the proposed development have been assessed according to the guidance produced by EPUK and IAQM in January 2017 "Guidance on the Assessment of Air Quality Impacts on Designated Nature Conservation Sites". Natural England recommends that the potential environmental effects be assessed using the methodology set out in guidance note NEA001 "Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations." Although the guidance specifically relates to European sites, it is our advice that the methodology can also be applied to the SSSI assessment.

The assessments of nitrogen deposition and acid deposition appear conflated. It is not clear whether the conclusions provided under Tables 6-15 and 6-16 relate to nitrogen deposition or acid deposition. Natural England expect that the potential environmental effects of nitrogen deposition and acid deposition will be assessed separately. The results of any assessment should be clearly explained and justification provided as to why the proposed development will not result in a significant impact to the features of the designated site.

In assessing the potential environmental effects, we recommend that the source of the data be made absolutely clear. For example, it is not clear how the Critical Load for nitrogen deposition at Dearne Valley Wetlands (SSSI) (E1), presented in Table 6-14, has been derived.

In addition, ammonia, along with nitrous oxides (NOx), can contribute to N-deposition in the soil and potential eutrophication of habitats. Whereas background levels of nitrous oxides have shown a steady decline over time due to reduced emissions from vehicles and other sources, levels of ammonia have remained relatively stable over the last 30 years.

Ammonia can be emitted from vehicle exhaust emissions as a by-product of the catalytic conversion process designed to reduce emissions of nitrogen oxide. As traffic composition transitions toward more petrol and electric cars (*i.e.* fewer diesel cars on the road), catalytic converters may aid in reducing NOx emissions but result in increased ammonia emissions. Ammonia emissions from road traffic therefore could make a significant difference to nitrogen deposition close to roads.

Natural England therefore advise that ammonia sourced from traffic emissions should be included for assessment as the impact from this source on designated sites is currently unclear. For further information please see this report from Air Quality Consultants (AQC) that looks at ammonia emissions from roads for assessing impacts on nitrogen-sensitive habitats. Whilst we are aware that the current CREAM model created by AQC used to assess ammonia emissions from road traffic has not been peer reviewed, at this time it has been recognised as a Best Available Tool and we deem it appropriate to be used where any caveats associated with this model are also considered within the assessment. An assessment based on the best available approach is necessary. The next stage of assessment can then consider uncertainties in the model and site specifics to decide if mitigation needs to be considered.

Finally, we note that the air quality assessment has not considered in-combination impacts from other relevant plans/ projects. The in-combination assessment makes sure that the effects of

numerous small proposals, which alone would not result in a significant effect, are assessed to determine whether their combined effect would be significant enough to require more detailed assessment.

Natural England advises that plans or projects that should be considered in the in-combination assessment include the following:

- The incomplete or non-implemented parts of plans or projects that have already commenced;
- Plans or projects given consent or given effect but not yet started;
- Plans or projects currently subject to an application for consent or proposed to be given effect;
- Projects that are the subject of an outstanding appeal;
- Ongoing plans or projects that are the subject of regular review;
- Any draft plans being prepared by any public body;
- Any proposed plans or projects published for consultation prior to application.

Currently, the critical loads and levels use background data from 2017 to 2019. This means that any relevant proposals/permissions/environmental permits from 1st January 2020 onwards must be included in the search, as their emissions will not be included in the background data. We advise that Natural England's Impact Risk Zones may help to determine the appropriate distance from the designated site to carry out the search for relevant plans/projects. The dataset and user guidance can be accessed from the data.gov.uk website or you can search the 'Magic' mapping website.

If any proposals, planning applications or environmental permits are found in this search, then the process contribution results from each one needs to be added to the process contribution results from current proposal to determine the in-combination impacts.

Other advice

In addition, Natural England offers the following advice.

Habitat enhancements for the assemblage feature of the Dearne Valley Wetlands SSSI

The Dearne Valley Wetlands SSSI supports a nationally important assemblage of breeding birds. Some of these interest features may also rely on areas outside of the site boundary. These supporting habitats may be used by SSSI bird populations or some individuals of the population for some or all of the time. These supporting habitats can play an essential role in maintaining SSSI species populations, and proposals affecting them may therefore have the potential to affect the SSSI.

The application site is within or in close proximity to an area known to support willow tit, which are part of the breeding bird assemblage feature of the SSSI. Willow tit populations declined by 94% between 1970 and 2012, with habitat fragmentation a key contributor to their decline. To ensure that habitat networks for willow tits and other breeding birds of the SSSI assemblage feature are preserved around the Dearne Valley Wetlands SSSI, Natural England advise that any habitat enhancements should emphasise scrub creation and/or maintenance. Both the Willow Tit Conservation Handbook and Willow Tit Habitat Guide produced from the Back from the Brink programme contain useful guidance about willow tits and their habitat preferences, and can be used to inform habitat management and enhancements undertaken on-site.

Further general advice on the protected species and other natural environment issues is provided at Annex A.

If you have any queries relating to the advice in this letter please contact me at

Katharine.Carson@naturalengland.org.uk. For any new consultation, or to provide further information on this consultation please send your correspondence to consultations@naturalengland.org.uk.

Should the applicant wish to discuss the further information required and scope for mitigation with Natural England, we would be happy to provide advice through our Discretionary Advice Service.

Please consult us again once the information requested above has been provided.

Yours sincerely

Katharine Carson
Yorkshire and Northern Lincolnshire Area Team

Annex A – Additional advice

Natural England offers the following additional advice:

Landscape
Paragraph 174 of the National Planning Policy Framework (NPPF) highlights the need to protect and enhance valued landscapes through the planning system. This application may present opportunities to protect and enhance locally valued landscapes, including any local landscape designations. You may want to consider whether any local landscape features or characteristics (such as ponds, woodland, or dry-stone walls) could be incorporated into the development to respond to and enhance local landscape character and distinctiveness, in line with any local landscape character assessments. Where the impacts of development are likely to be significant, a Landscape & Visual Impact Assessment should be provided with the proposal to inform decision making. We refer you to the Landscape Institute Guidelines for Landscape and Visual Impact Assessment for further guidance.

Best and most versatile agricultural land and soils
Local planning authorities are responsible for ensuring that they have sufficient detailed agricultural land classification (ALC) information to apply NPPF policies (Paragraphs 174 and 175). This is the case regardless of whether the proposed development is sufficiently large to consult Natural England. Further information is contained in GOV.UK guidance Agricultural Land Classification information is available on the Magic website on the Data.Gov.uk website. If you consider the proposal has significant implications for further loss of 'best and most versatile' agricultural land, we would be pleased to discuss the matter further.

Guidance on soil protection is available in the Defra *Construction Code of Practice for the Sustainable Use of Soils on Construction Sites*, and we recommend its use in the design and construction of development, including any planning conditions. Should the development proceed, we advise that the developer uses an appropriately experienced soil specialist to advise on, and supervise soil handling, including identifying when soils are dry enough to be handled and how to make the best use of soils on site.

Protected Species
Natural England has produced standing advice[1] to help planning authorities understand the impact of particular developments on protected species. We advise you to refer to this advice. Natural England will only provide bespoke advice on protected species where they form part of a Site of Special Scientific Interest or in exceptional circumstances.

Local sites and priority habitats and species
You should consider the impacts of the proposed development on any local wildlife or geodiversity sites, in line with paragraphs 175 and179 of the NPPF and any relevant development plan policy. There may also be opportunities to enhance local sites and improve their connectivity. Natural England does not hold locally specific information on local sites and recommends further information is obtained from appropriate bodies such as the local records centre, wildlife trust, geoconservation groups or recording societies.

Priority habitats and Species are of particular importance for nature conservation and included in the England Biodiversity List published under section 41 of the Natural Environment and Rural Communities Act 2006. Most priority habitats will be mapped either as Sites of Special Scientific Interest, on the Magic website or as Local Wildlife Sites. List of priority habitats and species can be found here[2]. Natural England does not routinely hold species data, such data should be collected when impacts on priority habitats or species are considered likely. Consideration should also be given to the potential environmental value of brownfield sites, often found in urban areas and former industrial land, further information including links to the open mosaic habitats inventory can be found

[1] https://www.gov.uk/protected-species-and-sites-how-to-review-planning-proposals
[2] http://webarchive.nationalarchives.gov.uk/20140711133551/http:/www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx

Annex A – Additional advice

here.

Ancient woodland, ancient and veteran trees
You should consider any impacts on ancient woodland and ancient and veteran trees in line with paragraph 180 of the NPPF. Natural England maintains the Ancient Woodland Inventory which can help identify ancient woodland. Natural England and the Forestry Commission have produced standing advice for planning authorities in relation to ancient woodland and ancient and veteran trees. It should be taken into account by planning authorities when determining relevant planning applications. Natural England will only provide bespoke advice on ancient woodland, ancient and veteran trees where they form part of a Site of Special Scientific Interest or in exceptional circumstances.

Environmental gains
Development should provide net gains for biodiversity in line with the NPPF paragraphs 174(d), 179 and 180. Development also provides opportunities to secure wider environmental gains, as outlined in the NPPF (paragraphs 8, 73, 104, 120,174, 175 and 180). We advise you to follow the mitigation hierarchy as set out in paragraph 180 of the NPPF and firstly consider what existing environmental features on and around the site can be retained or enhanced or what new features could be incorporated into the development proposal. Where onsite measures are not possible, you should consider off site measures. Opportunities for enhancement might include:

- Providing a new footpath through the new development to link into existing rights of way.
- Restoring a neglected hedgerow.
- Creating a new pond as an attractive feature on the site.
- Planting trees characteristic to the local area to make a positive contribution to the local landscape.
- Using native plants in landscaping schemes for better nectar and seed sources for bees and birds.
- Incorporating swift boxes or bat boxes into the design of new buildings.
- Designing lighting to encourage wildlife.
- Adding a green roof to new buildings.

Natural England's Biodiversity Metric 3.0 may be used to calculate biodiversity losses and gains for terrestrial and intertidal habitats and can be used to inform any development project. For small development sites the Small Sites Metric may be used. This is a simplified version of Biodiversity Metric 3.0 and is designed for use where certain criteria are met. It is available as a beta test version.

You could also consider how the proposed development can contribute to the wider environment and help implement elements of any Landscape, Green Infrastructure or Biodiversity Strategy in place in your area. For example:

- Links to existing greenspace and/or opportunities to enhance and improve access.
- Identifying opportunities for new greenspace and managing existing (and new) public spaces to be more wildlife friendly (e.g. by sowing wild flower strips)
- Planting additional street trees.
- Identifying any improvements to the existing public right of way network or using the opportunity of new development to extend the network to create missing links.
- Restoring neglected environmental features (e.g. coppicing a prominent hedge that is in poor condition or clearing away an eyesore).

Natural England's Environmental Benefits from Nature tool may be used to identify opportunities to enhance wider benefits from nature and to avoid and minimise any negative impacts. It is designed to work alongside Biodiversity Metric 3.0 and is available as a beta test version.

Annex A – Additional advice

Access and Recreation

Natural England encourages any proposal to incorporate measures to help improve people's access to the natural environment. Measures such as reinstating existing footpaths together with the creation of new footpaths and bridleways should be considered. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green infrastructure. Relevant aspects of local authority green infrastructure strategies should be delivered where appropriate.

Rights of Way, Access land, Coastal access and National Trails

Paragraphs 100 and 174 of the NPPF highlight the important of public rights of way and access. Development should consider potential impacts on access land, common land, rights of way and coastal access routes in the vicinity of the development. Consideration should also be given to the potential impacts on the any nearby National Trails. The National Trails website www.nationaltrail.co.uk provides information including contact details for the National Trail Officer. Appropriate mitigation measures should be incorporated for any adverse impacts.

Biodiversity duty

Your authority has a duty to have regard to conserving biodiversity as part of your decision making. Conserving biodiversity can also include restoration or enhancement to a population or habitat. Further information is available here.

Appendix 2 – Yorkshire Wildlife Trust Planning Consultation Response

Yorkshire Wildlife Trust

1 St. George's Place,
York, YO24 1GN
01904 659570
@YorksWildlife
Yorkshire Wildlife Trust
yorkshirewildlifetrust_

DATE: 12/4/22

BY EMAIL ONLY: developmentmanagement@barnsley.gov.uk

YWT Planning Consultation Response
2022/0115 Shaw Lane Carlton, Barnsley

Yorkshire Wildlife Trust OBJECTS to the planning application, due to insufficient baseline information and deficient Ecological Impact Assessment, meaning it would be unlawful for Barnsley Metropolitan Borough Council to determine the application based on the current submissions.

The full reasoning for our objection is detailed below, which is based on these key concerns:

- Insufficient ecological baseline information and deficient Ecological Impact Assessment.
- Sensitive location adjacent to protected wildlife sites which has not been adequately acknowledged or addressed.
- Potential impacts on willow tit, the UK's most threatened resident bird species.
- Non-compliance with the policies of the Carlton Masterplan Framework with respect to Biodiversity Net Gain provision.

1. Inadequate baseline information and EcIA process

1.1 No desk study has been completed, and no data search with local records centre has been undertaken. Due to this omission, Local Wildlife Sites (LWS) in the locality have not been identified (See also Section 2), and therefore potential impacts on these sites have not been addressed. Undertaking a thorough desk study to establish an accurate baseline is a critical component of an Ecological Impact Assessment and therefore, the submission is not in accordance with the CIEEM Guidelines for Ecological Impact Assessment[1].

1.2 A previous report is referenced (Extended Phase 1 Habitat Survey of land north of Shaw Lane, Carlton, Barnsley, South Yorkshire 2019 – Rachel Hacking Ecology Ltd) which must be provided for scrutiny to consultees if it is relevant to the application.

[1] https://cieem.net/resource/guidelines-for-ecological-impact-assessment-ecia/

Yorkshire Wildlife Trust

1 St. George's Place,
York, YO24 1GN
01904 659570
@YorksWildlife
Yorkshire Wildlife Trust
yorkshirewildlifetrust_

1.3 The ecological submission (Extended Phase 1 habitat report) discusses breeding bird potential and indicates that the hedgerows and scrub within the application site provide breeding bird habitat. We concur with this statement, and request that specific consideration is given to the potential for the site to support willow tit, the UK's most threatened resident bird, for which the Dearne Valley is a stronghold – more information is given in Section 3.

1.4 Further to point 1.3, as the site comprises arable land, the potential for the site to support ground nesting birds must be considered – currently absent from the assessment.

1.5 A pond is present within the application site which has not been surveyed, without sufficient justification. We do not agree with the conclusion that further survey work is not required and would like to see eDNA surveys of ponds on within 250 m of the site, not beyond significant barriers (or application to the District Level Licensing Scheme). If barriers to dispersal are cited as a justification not to survey, this must be backed up with evidence. At present, Shaw Lane is cited as a barrier to dispersal of amphibians, but with no evidence to this effect e.g. presence of kerbs, width of road, flow of traffic. We strongly recommend that the existing pond on site is retained and enhanced within the scheme in line with the mitigation hierarchy.

1.6 The report concludes that the site boundaries, particularly the eastern boundary offers potential bat foraging and commuting habitat. If boundaries are to be directly or indirectly impacted, which the report suggests may be the case (para 4.3) and cannot be avoided, surveys are required to establish the baseline, identify impacts and propose appropriate mitigation and compensation in line with the mitigation hierarchy. We strongly recommend that boundary features are retained and enhanced as part of the scheme – this must be evidenced in the application material.

1.7 With reference to protected species survey requirements discussed in points 1.3-1.6, the LPA has a duty to consider impacts upon protected species prior to determination, in line with case law[2] and ODPM circular 06/2005 (para 99). The scope of the current ecological submission is limited - the results of all surveys must be conducted and provided within an Ecological Impact Assessment (EcIA) to allow full considerations for impacts to protected species to be made and appropriate mitigation designed.

[2] https://www.freeths.co.uk/2015/05/06/environment-bulletin-legal-duty-of-local-planning-authorities-and-planning-inspectors-to-european-protected-species-in-planning-decisions/

Yorkshire Wildlife Trust

1 St. George's Place,
York, YO24 1GN
01904 659570
@YorksWildlife
Yorkshire Wildlife Trust
yorkshirewildlifetrust_

1.8 If a sensitive lighting scheme is proposed, this must be in line with Bat Conservation Trust/Institute of Lighting Engineers guidance[3]. A horizontal illuminance plan should be submitted as part of the application indicating how dark corridors are to be retained around the site, avoiding the features of value to nocturnal wildlife.

1.9 The report does not include an impact assessment specific to the scheme. There are generic recommendations but not firm commitments for mitigation and compensation. Once the required baseline information discussed above has been collected, the report should be comprehensively revised and a full Ecological Impact Assessment must be submitted. This should follow the methodology as set out within the CIEEM Guidelines for Ecological Impact Assessment (2018) including an assessment of the impact of the proposed development, avoidance and mitigation measures to be adopted and the subsequent residual impact.

2. Sensitive location close to protected sites for nature

2.1 Whilst the report mentions the very close proximity of Dearne Valley Wetlands Site of Special Scientific Interest (35 m from the site boundary – site unit 2), it does not discuss the designating features of this SSSI, or potential impacts of the scheme on the designating features. In Para 4.8 the report states *'Shaw Lane is considered to offer a suitable barrier habitat between the protected site and the proposed development'*. We strongly disagree with this statement and request that the applicant undertakes a full impact assessment, to include direct, indirect and cumulative impacts. Potential recreational impacts should also be investigated.

2.2 Recreational impacts on reserves close to residential developments were investigated as part of a YWT research study[4]. Recreational disturbance and damages can result in significant negative impacts on wildlife and habitats, and the addition of extra housing to an area can increase such pressures considerably. Such impacts can include: litter and fly-tipping; damage and disturbance by dogs and other domestic animals; anti-social behaviour including vandalism, graffiti and BBQ's; theft and destruction of wildlife and property; and damage by vehicles.

[3] https://www.bats.org.uk/our-work/buildings-planning-and-development/lighting
[4] Human Impacts on Nature Reserves – The Influence of Nearby Settlements, *Fin Rylatt, Lauren Garside and Sara Robin 2017 CIEEM In practice magazine* https://cieem.net/wp-content/uploads/2019/11/InPractice97_Sep2017_DiscUpdated.pdf

Yorkshire Wildlife Trust

1 St. George's Place,
York, YO24 1GN
01904 659570
@YorksWildlife
Yorkshire Wildlife Trust
yorkshirewildlifetrust_

2.3 Dearne Valley Wetlands was very recently (2021) designated as a SSSI. A key factor in achieving the SSSI status was the stronghold of willow tit (*Poecile montanus klienschmidti*). The SSSI comprises a network of 22 wetland, scrub and woodland areas that extends through the catchment of the River Dearne. It is a nationally important place for wildlife, created and restored from an area formerly used for coal mining, to form a connected landscape. In addition to willow tit, it also supports wetland birds such as bittern, garganey, lapwing, redshank and avocet. Where protected sites are designated for populations of bird species, these species may rely on land outside of the site boundary, known as 'functionally linked land'. It is therefore essential to establish if the application site comprises land functionally linked to the SSSI.

2.4 The application site lies adjacent to Carlton Marsh and Wharncliffe Woodmore Yorkshire Wildlife Trusts Nature Reserves (managed on behalf of Barnsley Council). Carlton Marsh is included within the Dearne Valley SSSI designation, in recognition of it being a core wildlife site in the Dearne Valley. Further information on the habitats and species that Carlton Marsh and Wharncliffe Woodmore support is available on request.

2.5 The additional designation of Carlton Marsh as a LWS and Barnsley Canal LWS (which lies approximately 50 m to the west of the application site) have not been identified within the report because a desk study with Barnsley Biological Records Centre has not been undertaken (see point 1.1). Potential impacts on this site have therefore not been assessed, which could include increased recreational impact.

2.6 The sensitive location of the application site in relation to the surrounding designated sites is not given adequate consideration with the ecological submission, both in terms of potential impacts, but also on the potential to positively contribute to nature's recovery in this location.

3. Potential impact on willow tit

3.1 The application site provides potential habitat for willow tit within the hedgerow and boundary features, which has not been assessed through appropriate survey. Potential impacts to this threatened species have therefore not been identified or discussed.

3.2 Willow tit is a nationally important bird species, which has declined by 94% since the 1970s and is now the UK's most threatened resident bird species. It is extinct from previous parts of its range in the south and south-east of England. However, in the Dearne Valley the connected landscape of favourable habitat is providing a stronghold for the species.

Yorkshire Wildlife Trust

1 St. George's Place,
York, YO24 1GN
01904 659570
@YorksWildlife
Yorkshire Wildlife Trust
yorkshirewildlifetrust_

3.3 The habitat described within the report encompasses common species used by willow tit – bramble, elder, hawthorn/blackthorn scrub. The potential for this species at the application site is boosted by the fact that willow tit populations are relatively stable nearby at Carlton Marsh and Rabbit Ings and this species is known to utilise the linear scrub connecting these two sites (evidenced through radio tracking studies YWT have undertaken[5]).

3.4 A willow tit survey using the playback method should be undertaken at the appropriate time of year (Feb/March) in order to establish presence/likely absence and determine territories if present. YWT has particular expertise on willow tit and if further information is required on survey techniques this can be provided on request.

3.5 The information relating to the Carlton Masterplan Framework states *'It should be noted that further species surveys, where required, will be undertaken for individual planning applications throughout the site. These surveys will detail the species present and any mitigation required, as appropriate, in line with standard planning requirements'*. Therefore, the current submission is not in line with the policy requirements.

3.6 The potential to provide habitat enhancement for willow tit to be delivered as part of the scheme is a key opportunity to be explored.

4. Non-compliance with Carlton Masterplan Framework

4.1 Delivering 10% Biodiversity Net Gain (BNG) is a policy requirement of the Carlton Masterplan Framework[6], of which this application site is a component of allocated site MU3 (Land off Shaw lane, Carlton), and therefore the lack of BNG information provided as part of the application is contrary to the policy.

4.2 The masterplan framework also states that *'The design team will be working with Yorkshire Wildlife Trust to identify opportunities to further enhance the biodiversity value of Wharncliffe Woodmoor'* and *'The masterplan framework will include an accessible landscape and ecology buffer between the development and surrounding Green Belt to protect sensitive landscape and ecology, including Carlton Marsh Nature Reserve'*. This has not taken place, as evidenced by the lack of information in the current submission.

[5] https://naturebftb.co.uk/projects/willow-tit/
[6] (https://www.barnsley.gov.uk/services/planning-and-buildings/local-planning-and-development/our-local-plan/masterplan-frameworks/carlton-masterplan-framework/).

Yorkshire Wildlife Trust

1 St. George's Place,
York, YO24 1GN
01904 659570
@YorksWildlife
Yorkshire Wildlife Trust
yorkshirewildlifetrust_

4.3 In addition to the policy requirement under the masterplan framework, in accordance with National Planning Policy Framework paragraph 174d, proposals should minimise impacts on and provide net gains for biodiversity. The recently enacted Environment Act which, when fully implemented will put a requirement for all proposals to achieve a 10% net gain in biodiversity. This level is already being implemented as good practice across the country.

4.4 One of The Wildlife Trusts' strategic aims is to make it normal practice for all residential, commercial and infrastructure development to contribute positively to nature's recovery on land and at sea. Biodiversity Net Gain, implemented in the right way, is therefore an important mechanism to help achieve The Wildlife Trusts' ambition.

4.5 We would therefore wish to see the usage of a biodiversity metric to demonstrate how net gains for biodiversity can be delivered by the project. We would welcome the implementation of Defra v3.0 metric as industry standard, with sufficient justification for habitat classifications and conditions, pre and post development made clear. For ease of interpretation for use of the Defra metric which utilises UK Habitat Classification (2018), further survey in this format may prove beneficial. Management for a minimum of 30 years must be secured through the planning process.

4.6 If the detailed design is still evolving, the BNG assessment can be outline (applying a precautionary approach to the calculations) and updated in an iterative approach as the project develops. It is not appropriate to delay the provision of BNG information on this basis.

I trust these comments are helpful. Please keep us informed in any developments with this application, and we would be pleased to comment on further submissions.

Kind regards,

Ellen Milner CEnv, MCIEEM
Planning Ecologist
ellen.milner@ywt.org.uk

Appendix A

Documents reviewed in producing this response:

- Rachel Hacking Ecology, Extended Phase 1 Habitat Survey.

Yorkshire Wildlife Trust

1 St. George's Place,
York, YO24 1GN
01904 659570
@YorksWildlife
Yorkshire Wildlife Trust
yorkshirewildlifetrust_

- Barnsley Metropolitan Borough Council, Carlton Masterplan Framework, Delivery Strategy, 22 October 2021.

Appendix 3 - Human Impacts on Nature Reserves – The Influence of Nearby Settlements

Human Impacts on Nature Reserves – The Influence of Nearby Settlements

Keywords: anthropogenic, disturbance, housing, nature reserves

Fin Rylatt, Lauren Garside and Sara Robin
Yorkshire Wildlife Trust

Recreational disturbance and damages can result in significant negative impacts on wildlife and habitats, and the addition of extra housing to an area can increase such pressures considerably. There has been little investigation of the impacts of increased recreational pressures on habitats outside of European Designated Sites and there is little evidence of impacts on non-statutory designated sites (such as Local Wildlife Sites). This article investigates the relationship between housing proximity and frequency of damage and disturbance on Yorkshire Wildlife Trust nature reserves, and how such impacts should be considered when determining the likely impacts of additional housing to an area.

Introduction

Yorkshire Wildlife Trust (YWT) manages over 100 nature reserves spanning a variety of landscapes and habitats in both rural and urban areas. Whilst our reserves are managed for people to re-connect with nature just as much as they are for wildlife, there is a delicate balance to be struck to satisfy both these differing needs and ensure that increased engagement with the public doesn't result in biodiversity losses.

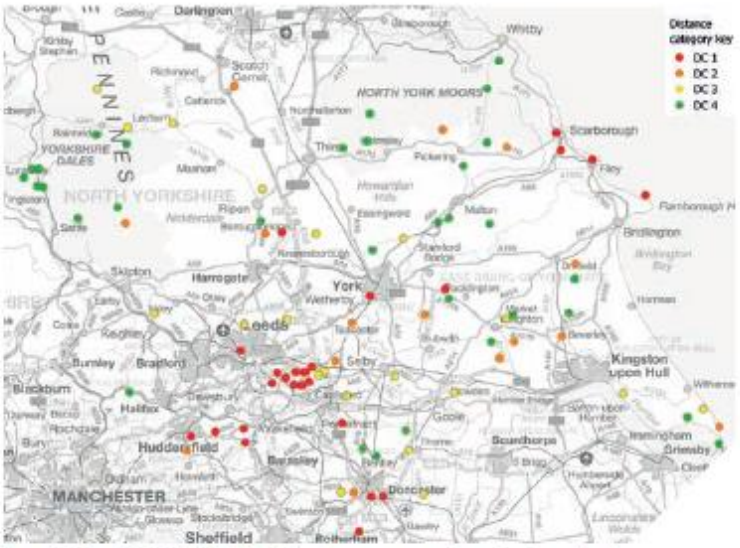


Figure 1. Map of Yorkshire Wildlife Trust nature reserves colour coded according to proximity to settlements. Distance categories – DC1: within 100 m, DC2: 101-500 m, DC3: 501-1000 m, DC4: 1001+ m.

Due to a lack of current research, Yorkshire Wildlife Trust undertook an analysis into the impacts of housing on nature reserves with the aim of better understanding why damage and disturbance occurs and how it may be prevented. This article presents an analysis of the different types of damage and disturbance and the impact that the proximity of housing may have on such incidents.

Methodology

In order to assess the problem, incidents of damages and disturbances were logged during visits to 94 nature reserves by YWT reserve officers during 2016. As such visits are ad-hoc in their nature, the data were collected opportunistically rather than on set inspections specific for the study. Reserve officers were provided with definitions of each damage/disturbance type to ensure consistency. The data were collated on a central Excel database and analysed.

Five types of damage and disturbance were defined and recorded by reserve officers:

1. **Litter and fly-tipping**
2. **Damage and disturbance by dogs and other domestic animals**
3. **Anti-social behaviour including vandalism, graffiti, barbeques**
4. **Theft and destruction of wildlife and property**
5. **Damage by vehicles.**

Nature reserves were allocated to distance categories depending on their proximity to settlements (Figure 1). A settlement is defined in this study as any place made up of clusters of twenty or more dwellings, retail units and/or business/industry units.

The following categories were used to assess the relationship between disturbance and proximity of settlements to YWT nature reserves:

- **DC1**: 0-100 metres from nearest settlement (total reserves: 26)
- **DC2**: 101-500 metres from nearest settlement (total reserves: 16)
- **DC3**: 501-1,000 metres from nearest settlement (total reserves: 20)
- **DC4**: 1001+ metres from nearest settlement (total reserves: 32)

Frequency categories were used to quantify the occurrence of incidents. Each frequency category was assigned a numerical weighting so that a frequency ***score*** could be calculated for each category of damage and disturbance. This accounted for the differences in frequency of each individual report (with reports ranging from one-off incidents to frequent incidents) and allows for a simple comparison of frequency across all distance categories (Figure 2):

- **One-off** – incidents occurring only once/rare – assigned a weighting of 10
- **Occasional** – on average occurring once a month or less often – a weighting of 20

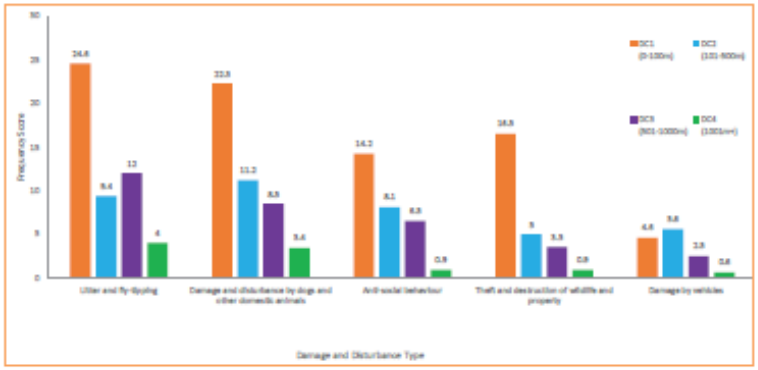


Figure 2. Frequency score of each damage and disturbance type across 94 nature reserves sub-divided by distance category.

- **Frequent** – on average occurring more than once a month – a weighting of 50

Limitations

The Yorkshire Wildlife Trust is unable to maintain a constant presence on nature reserves due to limited staff resources. The data collected are therefore likely to represent an underestimate of the number of damage and disturbance incidents, especially those which may be undetectable after the incident has occurred, such as disturbance of wildlife by people and dogs. The results of this analysis must therefore be used cautiously, especially in relation to mitigation for housing schemes. In these cases, detailed visitor surveys of nature reserves will be required to determine the likely impacts of any increased housing on specific sites and the scale of mitigation required.

Results

Damages and disturbances were reported at 67 (71%) of the 94 nature reserves that were included in this analysis. This was limited to one type on many reserves but four or more types of disturbance were recorded from some reserves (12%). Table 1 details the 139 incidents by damage and disturbance type, distance and frequency category.

There was a significant negative relationship between the proximity of a nature reserve to a settlement and the frequency of damage and disturbance incidents (linear regression: n = 94, df

Table 1. Total number of damage and disturbance reports by distance category (sample size: 94 nature reserves; * = one-off, ** = occasional, *** = frequent).

Damage and disturbance type	Number of reports for each distance category												Totals
	DC1 (26 reserves)			DC2 (16 reserves)			DC3 (20 reserves)			DC4 (32 reserves)			
	*	**	***	*	**	***	*	**	***	*	**	***	
Litter and fly-tipping	3	8	9	0	5	1	1	4	3	4	2	1	**41**
Damage and disturbance by dogs and other domestic animals	1	6	9	0	4	2	1	3	2	1	5	0	**34**
Anti-social behaviour	2	5	5	1	6	0	0	4	1	3	0	0	**27**
Theft and destruction of wildlife and property	3	5	6	2	3	0	1	3	0	1	1	0	**25**
Damage by vehicles	1	3	1	1	4	0	0	0	1	0	1	0	**12**
Totals	**67**			**29**			**24**			**19**			**139**

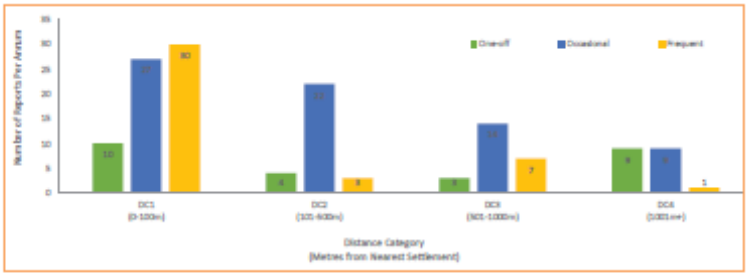


Figure 3. Total number of reports of all types of damage and disturbance for nature reserves in each distance category (139 incidents across 94 nature reserves).

1,92, $P<0.0001$). The greatest frequency of incidents occurred at YWT reserves within 100 m of a settlement, which was true for all disturbance types apart from damage by vehicles (Figure 2).

Damages and disturbances reported as *frequent* (>1 per month) were highest at DC1 reserves (within 100 m of a settlement), accounting for 73% of all incidents described as *frequently* occurring (Figure 3). Litter and fly-tipping was the most recurrent type of damage and disturbance at YWT nature reserves (30%), with damage by dogs and other domestic animals occurring at similar levels (24%). Anti-social behaviour (19%) and theft and destruction of wildlife and property (18%) were less common and damage by vehicles (9%) was the least recorded damage type. (Table 1, Figure 4)

1. Litter and fly-tipping

Reports of litter and fly-tipping show that it is the most persistent damage type faced by YWT. Of the 41 reports of litter and fly-tipping, over 80% were described as either *occasional* or *frequent*. Most incidents of littering and fly tipping occurred on nature reserves in DC1, accounting for 49% of the total number of reports, and the highest frequency score (Table 1, Figure 2). There is a clear decline in frequency score (62%) from DC1 to DC2 reserves.

Managing litter and fly-tipping occupies a great deal of YWT's time and involves dealing with an array of waste including general litter, unwanted furniture, building rubble and tyres. The build-up of litter on nature reserves leads to wide-ranging negative consequences including habitat degradation, chemical pollution and injury/death of wildlife.

The data collected in this study suggests that littering is especially problematic at reserves surrounded by residential areas. Anecdotal evidence from reserve officers also suggest that it is especially problematic around schools. Reserves located further away from settlements still suffer from litter and fly-tipping but reports tend to be of one-off incidents involving larger items (such as furniture fly tipping, Figure 5) rather than general dropping of litter (Figure 2).

2. Damage and disturbance by dogs and other domestic animals

This type of damage mostly concerns dog fouling on nature reserves but also includes other illegal activity such as sheep worrying by dogs and fly grazing by horses. The impact of cat predation on wildlife has not been taken into account in this study, due to practical difficulties associated with data collection. Nevertheless, this is likely to occur on YWT nature reserves, as highlighted in studies by The Mammal Society (Wood *et al.* 2003). It will be more prevalent in nature reserves close to settlements and must be given consideration during the determination of planning applications.

Those nature reserves closest to settlements experienced the highest frequency of damage relating to domestic animals, as dog owners are more likely to use reserves close to their homes for dog exercising. Fifty-eight per cent of all reserves within 100 m of a settlement (DC1) reported frequent or occasional damage of this type, compared with just 16% of DC4 reserves (>1 km away from settlement) (Table 1). The lower frequency of damage by dogs on DC4 reserves could be due to fewer people within close proximity of the nature reserves.

Although YWT allows dogs on many of its reserves, dog fouling is illegal and the unpleasant task of clearing up is too often left to YWT staff. Dog waste in large amounts is known to alter the chemical composition of soil, which leads to changes in the plant species which occur there, and may have significant impacts on the quality of grassland habitats (Bonner and Agnew 1983, Taylor *et al.* 2005).

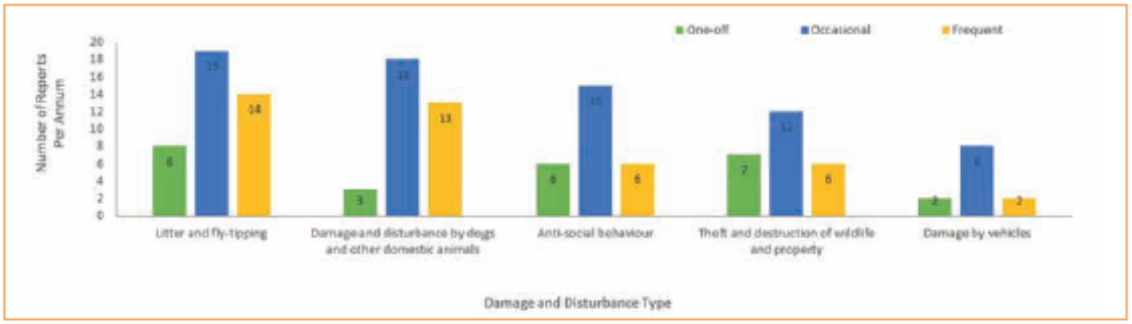


Figure 4. Total number of reports of each type of damage and disturbance (139 incidents across 94 nature reserves).

Figure 5. Fly tipping often consists of large pieces of furniture that are difficult or costly for people to dispose of, such as this armchair fly tipped on a SSSI meadow. Photo credit Jim Horsfall.

Dogs are often let off leads on nature reserves, contrary to YWT signposted instruction. Dogs therefore stray off paths, which are positioned to avoid sensitive wildlife areas, resulting in damage to habitats and disturbance of animals, which can have significant negative impacts on breeding and survival rates. Furthermore, serious incidents of dogs attacking sheep has led to the curtailing of sheep grazing on nature reserves, and the loss of biodiversity enhancement from conservation grazing schemes. This leads to serious issues for YWT where grazing is specified in legal management agreements.

3. Anti-social behaviour

Anti-social behaviour on reserves encompasses a wide range of activities including graffiti, camping and barbeques (Figure 6), which can be hugely damaging to habitats. Whilst graffiti may not have significant wildlife implications, it does reduce a reserve's attractiveness to visitors and their sense of safety. Removing graffiti is therefore an essential and recurring task at many reserves.

There is a clear link between the level of anti-social activity at nature reserves and the proximity of reserves to settlements (Figure 2). Forty-six per cent of DC1 reserves were subject to anti-social behaviour compared to just 25% of DC3 reserves and 9% of DC4 reserves (Table 1). This behaviour peaks during the summer months when parties and barbeques become a regular occurrence at many reserves within 500 m of the nearest settlement (Figure 2). More secluded reserves are less prone to such activities.

4. Theft and destruction of wildlife and property

This type of damage can be very costly and proximity to settlements has a large bearing on how heavily a reserve is impacted. It includes the cutting down and burning of trees and plants, destruction and theft of gates and fences (Figure 7), damage to hides and spraying of herbicides on plants. Destruction of trees and habitats can have long-lasting impacts on nature reserves.

Reports of this type were greatest at DC1 reserves, accounting for 54% of all reports of theft and destruction (Table 1). Frequent incidents were only reported from nature reserves within 100 m of the nearest settlement and became rarer the further from a settlement a reserve was located. Residential areas in the immediate proximity of a reserve are linked to the likelihood of forced access onto Trust land through the removal of fencing and gates.

5. Damage by vehicles

Damage by vehicles is the least frequent disturbance at YWT's nature reserves. Despite this, incidents can be amongst the most damaging with burnt-out cars (Figure 8) and vehicle use inflicting long-term and potentially irreversible damage to rare habitats such as salt marsh and MG4 grassland (Figure 9).

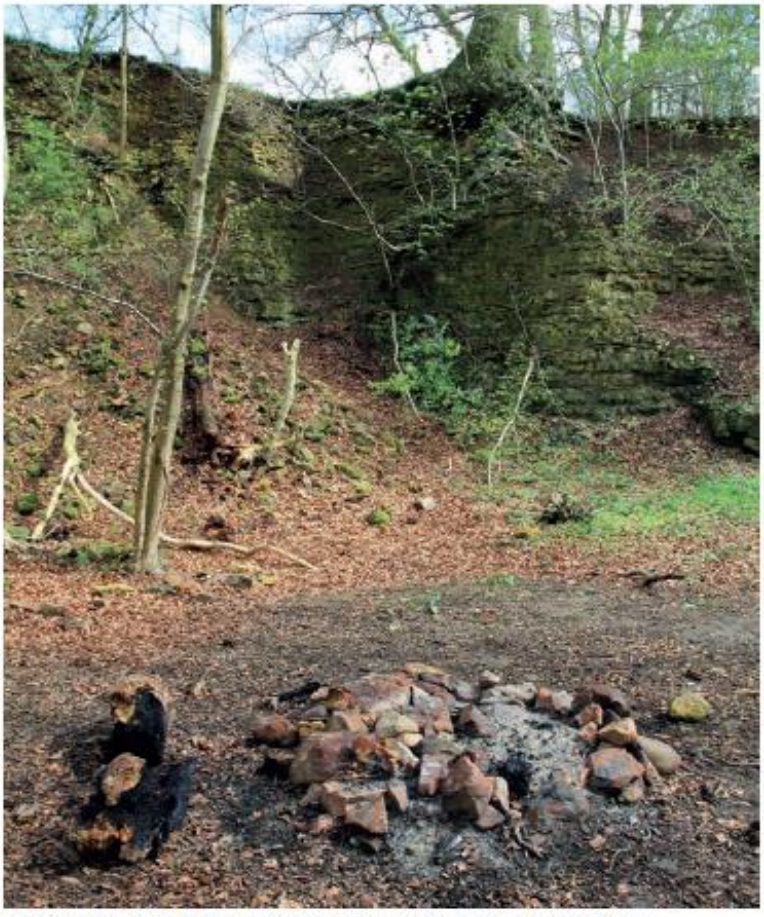


Figure 6. Campfire damage at woodland nature reserve. Photo credit Jim Horsfall.

Figure 7. Newly installed gates are frequently the target of thieves, often to allow illegal access for vehicles or livestock or to install the gate on private property. Photo credit Jim Horsfall.

Figure 8. Burnt-out car abandoned on a grassland SSSI nature reserve. Photo credit Jim Horsfall.

Figure 9. Tyre marks caused by off-road driving on a sensitive saltmarsh nature reserve. Photo credit Andrew Gibson.

Interestingly, damage by vehicles is the only type of damage and disturbance not correlated directly with distance category. Reports were greatest at reserves between 100 and 500 m from the nearest settlement (DC2: 42% of the total number of incidents, Table 1). Reserves over 500 m from the nearest settlement were subject to lower frequencies of damage by vehicles and reserves furthest from a settlement rarely reported this as a problem (DC4: 8% of total damage by vehicles reports).

The way forward

This analysis has highlighted that the proximity of a nature reserve to the nearest settlement can be a key predictor of the frequency of damage and disturbance likely to arise. Each of the five types of damage identified generally occurs more frequently the closer the reserve is to a settlement. This provides evidence that nature reserves within 100 m of settlements are vulnerable compared to secluded reserves located over 1 km from the nearest settlement.

Although these results are not surprising, they nevertheless raise important questions. With biodiversity in the UK in long term decline (HM Government 2011) and development pressures to deliver increased housing numbers (Department for Communities and Local Government 2017), it is crucial that impacts are recognised and solutions sought. Protecting nature reserves from damage should be a planning priority, whilst at the same time the responsible public use of green spaces should be encouraged in order for communities to benefit from the numerous health and wellbeing benefits that they provide.

In this study, all but one type of damage and disturbance decreased between DC1 and DC2 reserves. The first step in the planning process should therefore be to locate new housing developments at least 100 m from reserves, and ideally more than 500 m away. Where this is not possible, the establishment of an ecological buffer, or 'eco-zone', between housing developments and nature reserves could help to reduce the likelihood of anti-social incidents, littering and dog fouling on reserves. Ideally, the 'eco-zone' should be provided within the development site boundary with its creation and management funded by the housing developer with ample space designated for various recreational activities.

Such an approach is taken around the Thames Basin Heath Special Protection Area (SPA) through the creation of SANGS – Suitable Alternative Natural Green Spaces which divert recreational disturbance pressures away from sensitive bird habitats, avoiding bird disturbance incidents (Thompson 2015). For SANGS to be effective they must be more attractive to users than the nearby nature reserve or Special Protected Area, and the careful design of these areas is important in deterring damage incidents.

Education and engagement with local residents is essential in the effort to promote the responsible use of nature reserves and reduce impacts such as dog fouling and anti-social behaviour. YWT offers free membership for residents of new housing schemes to encourage residents to connect with and value the wildlife surrounding their new home. Nature reserve supporter groups (*'Friends of'* groups) can also be an important tool in reducing damage and disturbance incidents through creating a sense of community ownership over reserves and fostering community cohesion. Associated volunteering and outreach events provide health and wellbeing benefits through physical activity, connecting with nature and meeting neighbours.

The change in land use to accommodate new housing poses a significant risk to nature reserves nationally. Proper consideration of impacts along with sensitive siting and design of housing developments can go a long way towards avoiding damage and disturbances, and the provision of natural greenspaces within development sites can provide long-term benefits for communities. This is the policy adopted by The Wildlife Trust nationally. At present, planning policy offers limited protection for non-statutory sites, with no specific mention in the National Planning Policy Framework, therefore it can be difficult for NGOs to negotiate adequate mitigation to protect their sites from additional housing. Better protection of non-statutory sites through national and local policy is essential to ensure that new housing sites are properly delivered for both wildlife and communities. Improved facilities such as dog waste bins, interpretation boards and footpaths could also help to promote responsible usage of nature reserves, and help to ensure that reserves remain rich in biodiversity.

Note

The full report on which this article is based is available from the authors on request (lauren.garside@ywt.org.uk).

References

Bonner, C. and Agnew, A.D.Q. (1983). Soil phosphorus as an indicator of canine faecal pollution in urban recreation areas. *Environmental Pollution (Series B)*, **6**: 145-156.

Department for Communities and Local Government (2017). *Fixing our broken housing market*. Crown copyright 2017. Available at https://www.gov.uk/government/publications/fixing-our-broken-housing-market. Accessed 19 July 2017.

HM Government (2011). *The Natural Choice: securing the value of nature*. TSO (The Stationery Office), London. Available at www.official-documents.gov.uk. Accessed 19 July 2017.

Taylor, K., Anderson, P., Taylor, R., Longden, K. and Fisher P. (2005). *Dogs, access and nature conservation*. English Nature Research Reports Number **649**. English Nature, Peterborough.

Thompson, S. (2015). Responsible reconnection: facilitating sympathetic access to sensitive sites. *In Practice – Bulletin of the Chartered Institute of Ecology and Environmental Management*, **90**: 19-22.

Woods, M., McDonald, R.A. and Harris, S. (2003). Predation of wildlife by domestic cats *Felis catus* in Great Britain. *Mammal Review*, **33(2)**: 174-188.

Acknowledgements

The authors would like to acknowledge the help and expertise of the Yorkshire Wildlife Trust nature reserves officers in collecting the data for this report. The invaluable comments of several reviewers greatly improved the data analysis and scope of the report, therefore thanks go to Louise Wilkinson, Professor Alastair Fitter, Bob Missin and the *In Practice* Editorial Board, in addition to David Gregory for producing the reserves map.

About the Authors

Fin Rylatt is a Conservation Planning and Policy Trainee at Yorkshire Wildlife Trust. Fin is a human geography graduate from the University of Sheffield and his role with Yorkshire Wildlife Trust is his first within the conservation sector.

Contact Fin at:
finlay.rylatt@ywt.org.uk

Lauren Garside is a Conservation Planning Officer for Yorkshire Wildlife Trust where she advises on the impacts of development on Yorkshire's wildlife and natural habitats. She provides ecological advice on a wide range of development control applications and LPA policies.

Contact Lauren at:
lauren.garside@ywt.org.uk

Sara Robin is a Conservation officer at the Yorkshire Wildlife Trust, commenting on planning applications in North Yorkshire. She has a particular interest in mitigation for developments, the impacts of development on wildlife sites, and sustainable transport.

Contact Sara at:
sara.robin@ywt.org.uk

Source: https://cieem.net/wp-content/uploads/2019/11/InPractice97_Sep2017_DiscUpdated.pdf

Appendix 4 – SSSI Assessment

Shaw Lane, Carlton, Barnsley Dearne Valley Wetlands SSSI Impact Assessment

Consultation Draft - Without Prejudice

June 29th 2024

baker consultants

baker*consultants*

Who we are:
Baker Consultants is an ecology and sustainability consultancy. We work in terrestrial, freshwater and marine environments, providing a range of services to industry, government, developers, public services and utilities.

Baker Consultants comprises a highly experienced team of professional ecologists. We do wildlife surveys - but they are only the first steps in the process for most projects. We are also involved in ecological assessment, environmental law, biodiversity management and design planning.

We don't just work with wildlife, because we know that communication with clients, design teams and conservation bodies is the key to project success. Explaining the implications of survey data, and interpreting legislation, policy and best practice is one of our strengths. We help decisions to be made and actions taken, allowing constraints to be kept to a minimum and project risks to be managed.

Our approach is scientific, pragmatic and creative. Alongside tried and tested methods, we seek to innovate, introduce clients to new ways of thinking and always deliver sound commercial awareness. You will find us honest and approachable, but we're not afraid to be robust and challenging - or to ask difficult questions.

We do believe in nature conservation. But we also believe in good development, well delivered. We know that, with our input, projects and plans can provide benefits for both nature and people.

That's not the whole story.

For more information, look at our web site www.bakerconsultants.co.uk, subscribe to our blog, or call us on 01629 593958.

Baker Consultants Ltd
Cromford Station
Cromford Bridge
Matlock
Derbyshire DE4 5JJ
info@bakerconsultants.co.uk
www.bakerconsultants.co.uk
01629 593958

Company No. 6702156

Disclosure and Limitation:

Baker Consultants has prepared this document for the sole use of the commissioning client in accordance with the agreed scope of works and Terms and Conditions under which our services were performed. The evidence and opinion provided is true and has been prepared in accordance with the guidance of our professional institution's Code of Professional Conduct. No other warranty is made as to the professional advice included in this document or any other services provided by us. This document may not be relied upon by any third party without the prior and express written agreement of Baker Consultants.

Unless otherwise stated in this document, the assessments made assume that the study site referred to will continue to be used for its current purpose without significant change. The assessment, recommendations and conclusions contained in this document may be based upon information provided by third parties and upon the assumption that the information is relevant, correct and

complete. There has been no independent verification of information obtained from third parties, unless otherwise stated in the report.

Where field investigations have been carried out, these have been restricted to the agreed scope of works and carried out to a level of detail required to achieve the stated objectives of the services. Natural habitats and species distributions may change over time and further data should be sought following any significant delay from the publication of this document.

Report Contents

1 Introduction

1.1.1 The document provided an assessment of the potential effects on the proposed development at Shaw Lane upon the Dearne Valley Wetland Site of Special Scientific Interest (SSSI). In addition, the report considers potential impacts in combination with the other parts of the Local Plan housing allocation MU3 of which the Shaw Lane is part.

1.1.2 In its reason for refusal 4 the Council stated '*The applicants have not adequately assessed the impact of the development on the SSSI*' a reference to the Dearne Valley Wetlands SSSI. The aim of the document is to address this criticism to the satisfaction of both the Council and Natural England.

1.1.3 The Dearne Valley Wetland SSSI is a large archipelago site comprising a total of 649.99 ha across Barnsley, Rotherham and Doncaster. The species interest of the site breeding and non-breeding birds associated with wetland habitats. The nearest parts of the SSSI to the proposed Shaw Lane development are compartment units 001 and 002 Pool Ings and Sandybridge and Carlton Marsh respectively which are located to the east of the railway line which marks the eastern boundary of the development site.

1.1.4 The railway line which is raised on an embankment along the length of the development site boundary offers a considerable physical buffer between the site and the SSSI.

2 Natural England's consultation response

2.1.1 Natural England was consulted by the Council and a response was received dates 12 April 2022. Natural England has not objected to the planning application but rather has requested that further information be provided regarding possible impacts on the Dearne Valley Wetland SSSI including an assessment of impacts of water quality, increase recreational pressure, loss of functionally linked land and air quality. Each of these impact pathways are addressed below.

Charges in recreational pressure

2.1.2 Both SSSI units 001 and 002 are accessible to the public. The Pool Ings and Sandybridge unit is located immediately to the south of Rabbit Ings Country Park and within the SSSI there are numerous footpaths that connect with the Country Park. Furthermore, the SSSI notification papers from May 2021 (CDXX) highlight that the site is important for recreation where at paragraph 1.4 it is stated '*The site is important for both formal and informal recreation and attracts people from a wide area. A significant part of the attraction for visitors is its nationally important wildlife interest and there are key visitor facilities at the RSPB site of Old Moor, one of five RSPB reserves within the SSSI*'. There is no suggestion in the SSSI documents that recreational pressure is currently or may be in the future be likely to cause damage to the site and should therefore be restricted.

2.1.3 The designation document lists operations that require will require Natural England's consent this list includes 'Recreational or other activities likely to damage or disturb the features of special interest.' It is clear therefore that recreational activities only need to be considered where they are likely to damage or disturb the features of special interest.

2.1.4 Public access to Carlton Marsh Nature Reserve (SSSI unit 002) is actively promoted on the Yorkshire Wildlife Trust website (https://www.ywt.org.uk/nature-reserves/carlton-marsh-nature-reserve). The only restriction set out on the website is for dogs to be kept on leads. Facilities include a car park (off Shaw Lane), a picnic area and a network of walking routes. Pool Ings (Unit 001) of the SSSI also has public rights of way through the site and a network of informal paths and tracks that connect with Rabbit Ings Country Park which is located immediately to the north of the SSSI.

2.1.5 There is no evidence to suggest that the footpath network which may be accessed by new residents at the proposed development will result in any adverse effects upon the SSSI's features of special interest. NE has not identified any threats from recreational pressure in their SSSI notification documents and YWT promote access to Carlton Marsh. Furthermore, the Carlton Masterplan Framework highlights the linkages to the SSSI as a benefit of the allocation of MU3 (see for example page 5 and page 60).

2.1.6 Finally, is should be noted that both of the SSSI units 001 and 002 are classified as being in "favourable" condition with 'no identified condition threats' 1.

2.1.7 Notwithstanding the above assessment the appellant is offering to provide, on a precautionary basis, fair and reasonable funds to the Council that will be used to improve access and recreation facilities within Pool Ings and Carlton Marshes. The funds will be used to provide signage, dog waste bins and fencing within the SSSI.

Water Quality

2.1.8 Discharges of foul and surface water are fully addressed in the evidence of Mr A Laird. In summary, surface water drainage will be through a Sustainable Urban Drainage System (SUDS) in order to maintain green field runoff rates. SUDS also assists in maintaining water quality such as reducing suspended solids. By designing the SUDS in accordance with Construction Industry Research and Information Association (CIRIA) "The SuDS Manual" (C753) the quality of surface water runoff will be maintained and potentially improved when compared to the current agricultural drainage.

2.1.9 Foul water will be discharged into the existing sewage system and will therefore be treated in within current sewage treatment works consents.

2.1.10 The proposed project will therefore have no effects upon the Dearn Valley Wetlands SSSI through changed in hydrology.

Loss of Functionally Linked Land

2.1.11 The concept of 'functionally linked land' FLL is one which is usually applied to Habitats site (Special Protection Area, Special Areas of Conservation and Ramsar sites). While I am very

1 https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s2000814

familiar with the application of this concept to these sites, despite my wide experience in the application of nature conservation law I have never before known the concept of FLL to be applied to Sites of Special Scientific Interest. The concept of FLL is entirely based on the legal structure of the Habitats Regulations 2017 (as amended) and those legal tests are not mirrored in the legal structure of those parts of the Wildlife and Countryside Act 1981 (as amended).

2.1.12 Nonetheless I have below addressed NE's comments on the possible loss of functionally linked land as set out in its consultation response.

2.1.13 Functionally linked lands is defined as 'areas of land or sea occurring outside a designated site which is considered to be critical to, or necessary for, the ecological or behavioural functions in a relevant season of a qualifying feature for which a Special Areas of Conservation (SAC)*/ Special Protection Area (SPA)/ Ramsar site has been designated.* '*2* It is clear from this definition that FLL must have an ecological 'function' which is not trivial, but one which is 'critical to or necessry for' supporting the qualifying features of a designated site. If the concept of FLL can be applied to a SSSI (and given that the concept is entirely based on authoritative decision concerning Habitats sites*3* I think this is highly problematic) in order for land to be FLL for an SSSI it would have to provide a critical function for the interest features of the SSSI. Given that the Dearn Valley Wetlands is designated for the wetland birds it supports the proposed site would have to provided habitat that would be critical to supporting those interest features.

2.1.14 In this case the features present on the proposed development site are not those which can be considered critical to supporting the SSSI. The arable land which makes up the majority of the site will not provide critical feeding habitat for wetland birds. Nor would it provide roosting habitat that would be any more attractive than any of the other arable land in the areas. The loss of the arable land could not therefore have any significant effect upon the Dearne Valley Wetland SSSI.

2.1.15 Furthermore during 2024 Baker Consultants has carried out a full breeding bird surveys of the development site including the placement of audio recorders in the vicinity of the pond to detect which species are using the site.

2.1.16 As would be expected of primarily arable land the site supports very low numbers of breeding birds (see Appendix 2). The only species of bird confirmed as breeding on the site chaffinch and magpie are not listed on the SSSI citation. Of those classed as probably breeding only yellowhammer and reed bunting are listed on the SSSI citation. There is no way of knowing whether these birds that are nesting outside the SSSI have any relationship with habitats within the SSSI or vice versa but in any event the numbers of pairs present are not significant (See Appendix 2). Furthermore, both the reed bunting and yellowhammer were associated with the habitat which can be retained and enhanced

2 NERC361. Natural England Identification of Functionally Linked Land supporting SPA waterbirds in the North West of England.
3 CHAPMAN, C. & TYLDESLEY, D. 2016. Functional linkage: How areas that are functionally linked to European sites have been considered when they may be affected by plans and projects - a review of authoritative decisions. Natural England Commissioned Reports, Number207.

within the proposed development and the biodiversity net gain associated with the proposed development will mean that the breeding opportunities for these species will be improved.

2.1.17 As well as reed bunting and yellowhammer the acoustic bird surveys recorded an additional 7 bird species that are listed on the SSSI citation these are black-headed gull, long-tailed tit, lapwing, lesser whitetroat, linnet, snipe and water rail. The number of registrations for black-headed gull, lesser whitethroat, linnet, snipe and water rail were very small and not consistent across the recording periods. None of these species were therefore present on the site with such regularly as to demonstrate a functional linkage with the SSSI.

2.1.18 In the case of lapwing and long-tailed tit more detailed analysis of the data shows that the number of registrations across the acoustics survey periods are highly variable (see Figure 2 of Appendix 2 of this proof). This data cannot therefore be interpreted to demonstrate any consistent use of the site by either lapwing or long tailed tit and that they are using the site in a manner that would demonstrate any functional linkage.

2.1.19 It should also be noted that the habitat that will be lost as a consequence of planning permission being granted is arable land. As the aerial photographs demonstrate, for example see Figure 1 of Appendix 2 of this proof, there is a considerable amount of arable land in close proximity to the Dearn Valley Wetlands SSSI, particularly to the east which is also available to the bird species that are listed in the SSSI citation.

2.1.20 The data shows that the development site is not critical to or necessary for supporting the SSSI and cannot therefore be considered Functionally Linked Land. When considered in combination with other development identified within the Local Plan the same conclusion would be reached simply based on the extent of arable land available within the locality that is outside site allocation and is therefore unlikely to be developed in the future.

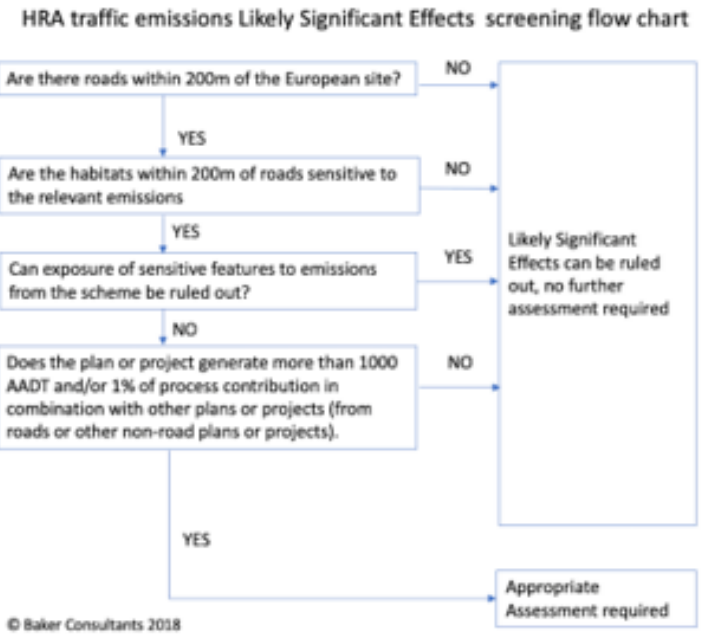
Air Quality

2.1.21 Natural England has advised that the effect of potential changes in air quality should be assessed using Natural England guidance NEA0014. This guidance has been prepared to primarily apply to Habitats sites through the Habitats Regulations2017 (as amended). I have therefore set out below an assessment of the air quality impacts using this guidance however it must be born in mind that the Habitats Regulations has very different and much more strict impact thresholds when compared to the protection of SSSIs under the Wildlife and Countryside Act 1981 (as amended) and the guidance cannot therefore be transferred in totum across to SSSIs. For example, the legal test of 'Like Significant Effects' and the need of 'Appropriate Assessment' only apply to Habitats sites not SSSIs.

2.1.22 NEA001 has a number of steps that can be applied to the assessment of changes in air quality. These are summarised in Figure 1 below.

---

4 Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations
Version: June 2018



2.1.23 If we assume that the term "European site" in the flow chart is substituted for SSSI in this case there is a road which passes within 200m of the SSSI, Shaw Lane.

2.1.24 That being the case it is then necessary to consider whether the habitat within 200m of Shaw Lane are likely to support SSSI bird interest features that are considered to be sensitive to changes in air quality. In order to consider this one must refer to the Air Pollution Information System (APIS) website https://www.apis.ac.uk/srcl which sets out the critical loads and sensitivities for SSSIs. The APIS webtool shows that none of the species that are the interest features of the site are sensitive to changes in ammonia (NH3), oxides of Nitrogen (NOx) or Sulphur Dioxide (SO2). The APIS webtool also sets out critical loads for nutrient nitrogen and sensitivities for Dearne Valley Wetland SSSI. This shows that there is only 1 species where a critical load has been set for nutrient nitrogen and a further four species for which critical loads are not set yet the feature is considered sensitive and decisions should be taken on a site-specific level. The detailed are summarised Table 1 below.

Table 1. Extract from Air Pollution Information System APIS site relevant critical loads for nutrient nitrogen for Dearne Valley Wetlands SSSI

	Min critical load for N (kg N/ ha/yr)	Max critical load for N (kg N/ha/yr)	Nitrogen critical load class	Reason
Bittern	15	25	Rich Fen	Potential negative impact on species due to impacts

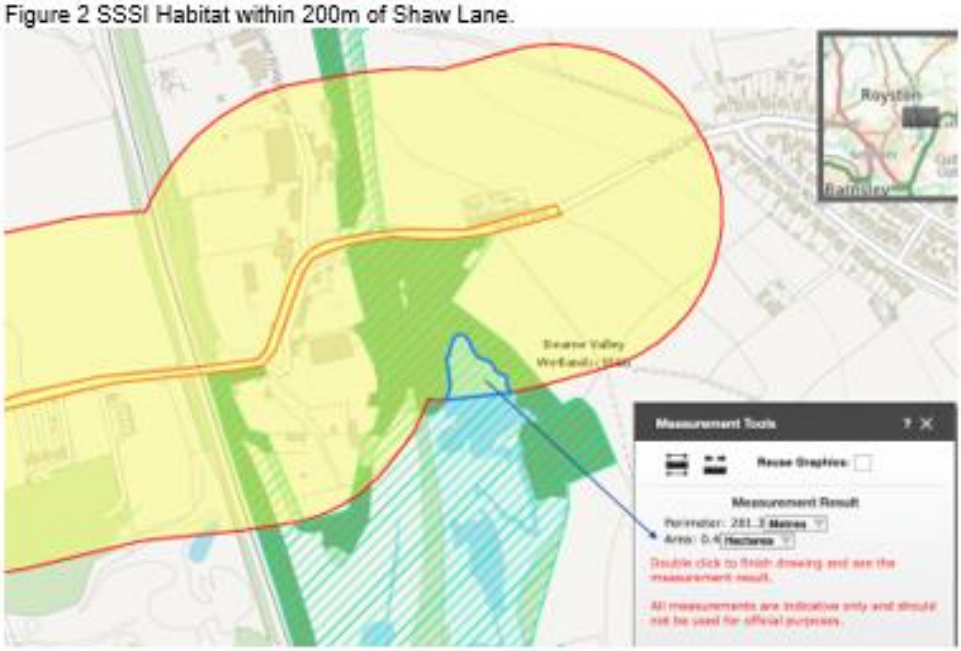
				on the species' broad habitat.
Northern Shoveler	-	-	No comparable habitat with established critical load estimate available	Decision to be taken at a site specific level since habitat sensitivity depends on N or P limitation.
Gadwall	-	-	No comparable habitat with established critical load estimate available	Decision to be taken at a site specific level since habitat sensitivity depends on N or P limitation.
Common pochard	-	-	No comparable habitat with established critical load estimate available	Decision to be taken at a site specific level since habitat sensitivity depends on N or P limitation.
Black headed gull	-	-	No comparable habitat with established critical load estimate available	Decision to be taken at a site specific level since habitat sensitivity depends on N or P limitation.

2.1.25 The only road which could be subjected to change in air quality as a consequence of the project that is located within 200m of the SSSI is Shaw Lane. That being the case it is then necessary to establish whether the habitats within the SSSI that are within 200m of the road are likely to be supporting habitat for the species listed in Table 1. In the case of Bittern this is rich fen and for the other species they are mainly associated with open water habitats.

2.1.26 Bittern is only recorded within the SSSI at Dearne Valley Old Moor site which is located approximately 9km from the proposed development site. Any changes in air quality along Shaw Lane could not therefore affect this species.

2.1.27 The SSSI habitats that are within 200m of Shaw Lane are predominantly broad-leaved woodland flanking Cudworth Dyke and to the south of Shaw Lane (see Figure 2 below). These are not key habitats for Northern Shoveler, Gadwall, Common Pochard nor Black Headed Gull. The only habitat within the 200m zone that could support these species is a small area of open water amounting to 0.4 ha in area. This is not a significant area of open water in the context of the entire SSSI which covers a total area of 650 ha (0.06% of the SSSI).

Figure 2 SSSI Habitat within 200m of Shaw Lane.



2.1.28 If changes in air quality were to occur as a result of the proposed development any significant effects upon the SSSI can be ruled out as the habitat that could be affected is small and cannot be considered significant. The same conclusion would apply for any in combinations effects that these would affect the same area.

3 Summary and Conclusions

3.1.1 Natural England had requested that further information be provided to assess the possible impacts of the proposed development upon the Dearne Valley Wetlands SSSI in combination with other developments. The issues raised were effects from changes in recreational pressure, air quality, water quality and loss of functionally linked land.

3.1.2 Based on up-to-date ecological survey data employing advanced ornithological survey techniques and data on hydrological and traffic generation, any impacts from changes in functionally linked land, air quality and water quality can be ruled out. The compartments of the SSSI that are closest to the development are already set up to receive visitors with established networks of footpaths and visitor facilities. Any increased in recreational pressure is considered highly unlikely to result in any increased risk of damage or disturbance to the birds that are the reason from the designation of the site as an SSSI. As a precautionary measure the appellant has offered to make a fair and reasonable contribution to the Council to assist in managing recreation on the SSSI.

3.1.3 Consequently, based on the evidence, it can be concluded that the proposed development will have no effects upon the Dearne Valley Wetland SSSI and as such there will be no in combination effects either.

baker consultants

Appendix 5 – Dearne Valley Wetlands SSSI South Yorkshire: Notification under Section 28 of the Wildlife and Countryside Act 1981

Dearne Valley Wetlands SSSI
South Yorkshire

Notification under Section 28 of the Wildlife and Countryside Act 1981

Issued by Natural England's Yorkshire and northern Lincolnshire Team on 13 May 2021

Contact points and further information
This notification package is issued by Natural England's Yorkshire and northern Lincolnshire Team.

During the current coronavirus situation, Natural England staff are working remotely and a limited number of our offices are open. Please send any correspondence relating to this notification by email or contact us by phone using the information below. Alternatively, you can send a response online using the Citizenspace link below.

Your contact point for specific enquiries relating to this notification is Emma Leighton.

Telephone number: 020 802 66230
E-mail: YNL.Hub@naturalengland.org.uk
Online: https://consult.defra.gov.uk/natural-england/dearne-valley-wetlands-sssi

A second document (Dearne Valley Wetlands SSSI - Supporting Information) is available on request from the address above. This contains information and extracts from relevant documents that have been used in the decision to notify this SSSI.

The date of notification of Dearne Valley Wetlands SSSI is 13 May 2021

Contents

1. Summary

1.1 This document explains why Dearne Valley Wetlands is notified by Natural England as a Site of Special Scientific Interest (SSSI).

1.2 Dearne Valley Wetlands SSSI is an area of post-industrial urban fringe in South Yorkshire, near Barnsley, and comprises large areas of open water and associated wetland and woodland habitat within the catchment of the River Dearne. It is of special interest for its nationally important numbers and assemblages of breeding and non-breeding birds.

1.3 Dearne Valley Wetlands SSSI is made up of 22 land parcels the majority of which lie within the Dearne Valley Green Heart Nature Improvement Area (NIA). This notification builds upon NIA partnership work to improve and create habitat. In total the site covers 652.43 ha.

1.4 The site is important for both formal and informal recreation and attracts people from a wide area. A significant part of the attraction for visitors is its nationally important wildlife interest and there are key visitor facilities at the RSPB site of Old Moor, one of five RSPB reserves within the SSSI.

1.5 The annexes to this document comprise the legal papers that detail the interest and the management required to maintain that interest. You have a right to make representations or objections to this notification. Part 3 of this document explains how to do this.

1.6 Natural England's consent is required by owners and occupiers before any of the operations listed in *Annex 3* can be carried out. We will work closely with owners and managers, as well as other bodies, to ensure that existing operations and new works that are not considered likely to damage the special features of the SSSI can be carried out.

2. The legal background

2.1 Dearne Valley Wetlands SSSI is notified under section 28 of the Wildlife and Countryside Act 1981.

2.2 Part 8 of this notification document contains the following legal documents required by section 28 of the Wildlife and Countryside Act 1981:

- a citation detailing the reasons for notification (*Annex 1*);
- a statement of Natural England's views on the management of the SSSI (*Annex 2*);
- a list of operations requiring Natural England's consent (*Annex 3*); and
- a map identifying the land subject to this notification (*Annex 4*).

2.3 This notification has several effects. The key ones can be summarised as follows:

- owners and occupiers must give Natural England notice before carrying out, causing or permitting to be carried out any of the activities in the list of operations at *Annex 3*;
- owners of land included in the SSSI have a legal obligation to notify Natural England within 28 days if the ownership or occupancy of the land changes;
- it is an offence for any person intentionally or recklessly to destroy or damage the special features of the SSSI or to disturb any of the fauna;
- other public bodies must consult Natural England before carrying out or authorising any works that may damage the SSSI; and
- it gives Natural England the ability to require the management of the SSSI by way of management schemes and notices.

2.4 If you require any further information or advice on how this notification affects you, please do not hesitate to contact Natural England at the address shown at the beginning of this notification document.

3. Making representations

3.1 You have a legal right to make objections and representations about this notification. Any representations, including those supporting the notification, or objections should be made in writing to Natural England's Yorkshire and northern Lincolnshire Team by **13 September 2021.** Representations can be sent by e-mail or online to the addresses shown on page 2. You may wish to seek legal or independent advice and your representative may wish to write to us on your behalf.

3.2 Natural England's Yorkshire and northern Lincolnshire Team will consider your objections or representations and will try to resolve them. If there are no unresolved objections, approval to confirm this notification will be considered by an appropriate Natural England Director within nine months of this notification.

3.3 Any unresolved objections or representations will be considered by the Board of Natural England within nine months of this notification. If there are unresolved objections, confirmation of this notification is likely to be considered at the Board meeting provisionally scheduled for January 2022. Please note that the desirability of the notification (for instance, for socio-economic reasons) will not form part of the Board's decision. Following consideration of objections and representations, the Board of Natural England may confirm or withdraw all or part of this notification. In reaching its decision the Board will consider whether, in light of the objections and representations received, Natural England remains of the opinion that the site is of special scientific interest. The desirability of the notification for socio-economic reasons will not form part of the Board's decision.

3.4 If you wish to emphasise any of your objections or representations to the Board in person, you should tell us when you write to us. You will then be advised of the date and location of the Board meeting

3.5 Natural England will accept correspondence relating to unresolved objections up to seven days prior to the Board meeting at which the confirmation is due to be considered. Correspondence received after this date will only be presented to the Board in very exceptional circumstances and you will be expected to provide justification as to why there has been a delay in providing the information. The decision whether this information will be submitted to the Board is entirely at Natural England's discretion. The reason that there is a seven day cut off is to allow Board members sufficient opportunity to consider all of the issues and read all the relevant paperwork before they meet to take their decision.

3.6 Natural England has a policy of openness, which reflects our obligations under the Environmental Information Regulations 2004 and the Freedom of Information Act 2000. This legislation provides a legal right of access to information held by public bodies. This means that we will provide information on how we make our decisions on SSSIs to any person on request. This includes details of objections and representations received. We will assume, therefore, that your representation or objection can be made publicly available unless you indicate with clear and valid reasons which (if any) part(s) of these you wish to be excluded from this arrangement. However, you should be aware that the requirements of the legislation may mean that we cannot comply with your request that this information be withheld. We do, however, respect people's privacy and will take all reasonable steps to consult you before reaching a decision on disclosure of the information.

3.7 As an individual with an interest in Dearne Valley Wetlands SSSI, your information will be stored and processed on a computer database that will be operated within the General Data Protection Regulation and the Data Protection Act 2018. For the purposes of the Data Protection Act, the data controller is Natural England, Foss House, Kings Pool, 1-2 Peasholme Green, York YO1 7PX. For more information, please see the *SSSI notifications privacy notice* at https://www.gov.uk/government/publications/natural-england-privacy-notices/site-of-special-scientific-interest-notification-privacy-notice or request a copy from the address on page 2 of this document.

4. Reasons for notification

4.1 Dearne Valley Wetlands SSSI is of special interest for the following nationally important features:

- **Numbers of non-breeding birds**
  The site's range of open water sizes, depths, aquatic life and marginal vegetation supports nationally important numbers of non-breeding gadwall *Mareca strepera* and shoveler *Spatula clypeata*.
- **Numbers of breeding birds**
  The open water, reedbed, fen, grassland and scrub habitats at the site support nationally important numbers of breeding gadwall, shoveler, bittern *Botaurus stellaris*, garganey *Spatula querquedula*, pochard *Aythya ferina* and black-headed gull *Chroicocephalus ridibundus*.
- **Assemblages of breeding birds**
  The site supports nationally important breeding bird assemblages associated with Lowland damp grassland, Lowland scrub and a mixed assemblage of Lowland open waters and their margins and Lowland fen.
- **Breeding willow tit**
  The site supports important numbers of the rare breeding bird willow tit *Poecile montanus klienschmidti*. The willow tit is included in the Government's list of species of principal importance for the conservation of biodiversity in England[1] and is classed as Red-listed (i.e. of the highest conservation concern) in the UK Birds of Conservation Concern[2]. During the five-year period 2014 to 2018 the SSSI supported territories for an estimated 18-20 breeding pairs of willow tit.

5. Site boundaries and relationships with other SSSIs

5.1 The boundary has been drawn to include land that supports the features of special interest and is required to ensure their long-term sustainability.

5.2 The Dearne Valley Wetlands SSSI consists of artificial waterbodies and surrounding habitat which are largely a result of the restoration of a post-industrial mining landscape. In most cases the boundary follows appropriate physical markers such as hedgerows, ditches, fence lines, tracks and buildings.

5.3 In places no Ordnance Survey boundary feature is present. Where there is a clear current habitat divide this has been used as the boundary, but in a few places straight lines between fixed points, or specified co-ordinates, have been drawn to exclude unsuitable areas.

5.4 Further clarification of the precise location of the boundary of the SSSI can be obtained from Natural England's Yorkshire and northern Lincolnshire Team at the email address on page 2 of this document.

5.5 The two nearest SSSIs are Carlton Main Brickworks SSSI and Stairfoot Brickworks SSSI, both of which are notified for their geological interest. The nearest biological SSSI is Denaby Ings (0.25 km to the east) notified for its wetland habitats and breeding bird assemblages.

6. Management of the SSSI

6.1 This notification includes at *Annex 2* a statement of the management that Natural England considers is needed to conserve and enhance the features of special interest. Different management may be appropriate in different parts of the site and this statement is not intended to detail the exact requirements at specific locations. The statement is intended to

[1] Under section 41 of the Natural Environment and Rural Communities Act 2006
[2] Eaton *et al.* 2015

explain how we can work with and support owners and managers in continuing to achieve positive management of the SSSI.

6.2 This notification also includes a list of the operations requiring Natural England's consent at *Annex 3*. Some of the operations may already be taking place and where they do not cause any damage they will be given consent. We will work with landowners and managers to agree lists of such existing and planned activities, which can be approved.

6.3 Where an operation has been granted a consent, licence or permission from another public body a separate consent will not generally be required from Natural England. However, other public bodies are required to consult Natural England before such consents, licences or permissions are issued.

6.4 In particular we recognise the important roles of the owners and managers of the land in managing this site. We will continue to work with them to develop means to secure the sustainable management of Dearne Valley Wetlands SSSI.

7. Supporting information

7.1 The detailed information, which has been used to assess the importance of this SSSI, is available on request from the address on page 2 of this document.

8. Legal documents

8.1 Attached at *Annexes 1 - 4* are the legal documents, which are required by section 28 of the Wildlife and Countryside Act 1981.

Annex 1

Citation

This is a legal document on which you have a right to make objections or representations, as explained in part 3 of this notification document

Site name:	Dearne Valley Wetlands	**County:**	South Yorkshire
District:	Barnsley Metropolitan Borough, Rotherham Metropolitan Borough, Doncaster Metropolitan Borough		
Status:	Site of Special Scientific Interest (SSSI) notified under section 28 of the Wildlife and Countryside Act 1981		
Local Planning Authority:	Barnsley Metropolitan Borough Council, Rotherham Metropolitan Borough Council		
Ordnance Survey 1:50,000 sheets:	111	**National grid reference:**	SE434027
Notification date:	13 May 2021	**Area:**	652.43 ha

Reasons for notification:

Dearne Valley Wetlands SSSI is of special interest for the following nationally important features:

- Breeding gadwall *Mareca strepera*, shoveler *Spatula clypeata*, garganey *Spatula querquedula*, pochard *Aythya ferina*, bittern *Botaurus stellaris,* black-headed gull *Chroicocephalus ridibundus* and willow tit *Poecile montanus klienschmidti.*
- Non-breeding gadwall *Mareca strepera* and shoveler *Spatula clypeata*.
- Diverse assemblages of breeding birds of Lowland damp grasslands, Lowland scrub and a mixed assemblage of Lowland open waters and their margins and Lowland fen.

General description:

Dearne Valley Wetlands SSSI is situated in South Yorkshire and comprises a network of 22 wetland, scrub and woodland areas that extends through the catchment of the River Dearne. The site lies within the local authority areas of Barnsley, Rotherham and Doncaster and is within the Dearne Valley Green Heart Nature Improvement Area.

The area is post-industrial urban fringe comprising former mining settlements set in a mosaic of farmland, woodland, wetland and floodplain habitats. Large areas of open water and associated habitats within the River Dearne catchment have been created as a result of post-industrial restoration and these areas now support a substantial ornithological interest.

Dearne Valley Wetlands comprises a series of shallow and deep open waters with an associated range of marginal habitats including ditches, reedbed, marsh, wet grassland, scrub and woodland. This range of habitats provides valuable nesting, resting and feeding conditions which support nationally important numbers and assemblages of birds in the breeding and non-breeding seasons.

The open water sites and associated habitats support nationally important numbers of breeding gadwall *Mareca strepera*, shoveler *Spatula clypeata*, garganey *S. querquedula*, pochard *Aythya ferina*, bittern *Botaurus stellaris* and black-headed gull *Chroicocephalus ridibundus*. The site also supports nationally important numbers of non-breeding gadwall and shoveler.

Dearne Valley Wetlands is a stronghold for the nationally rare and declining willow tit, *Poecile montanus klienschmidti*, its wet woodland and scrub habitats supporting ideal breeding territories for the species.

The network of wetland and scrub habitats across the site supports a range of breeding bird assemblages. The large areas of open water and marginal habitats, fen and wet grassland at sites including Carlton Marsh, Edderthorpe Flash, Wombwell Ings, Broomhill Flash, Old Moor, Bolton Ings and Adwick Washlands provide a range of water depths, vegetation structure and food availability which support a large range of breeding bird species. Deeper water provides an abundance of fish for bittern whilst shallower water supports a range of aquatic invertebrates and plants for dabbling and diving ducks such as garganey, shoveler, tufted duck *Aythya fuligula* and pochard, and waders such as avocet *Recurvirostra avosetta*. Marginal vegetation, fen and wet

grassland provide a variety of vegetation heights for nesting and concealment for species such as garganey, gadwall, shoveler, sedge warbler *Acrocephalus schoenobaenus*, water rail *Rallus aquaticus*, reed bunting *Emberiza schoeniculus* and bearded tit *Panurus biarmicus* and an abundance of soil and ground-surface invertebrates for species such as lapwing *Vanellus vanellus*, snipe *Gallinago gallinago* and redshank *Tringa tetanus*.

Areas of scrub are also present throughout the site, either scattered or in distinct blocks with key areas at Carlton Marsh, Warbler Way, The Mullins and Barrow Colliery Site. The nesting and feeding opportunities provided support species such as long-tailed tit *Aegithalos caudatus*, garden warbler *Sylvia borin*, grasshopper warbler *Locustella naevia*, willow tit, lesser whitethroat *Sylvia curruca* , linnet *Carduelis cannabina* and yellowhammer *Emberiza citrinella*.

Annex 2

Views about Management

This is a legal document on which you have a right to make objections or representations, as explained in part 3 of this notification document.

NATURAL ENGLAND

Views About Management

Wildlife and Countryside Act 1981 Section 28(4)

A statement of Natural England's views about the management of Dearne Valley Wetlands Site of Special Scientific Interest (SSSI)

This statement represents Natural England's views about the management of the SSSI for nature conservation. This statement sets out, in principle, our views on how the site's special conservation interest can be conserved and enhanced. Natural England has a duty to notify the owners and occupiers of SSSI of its views about the management of the site.

Not all of the management principles will be equally appropriate to all parts of the SSSI. Also, there may be other management activities, additional to our current views, which can be beneficial to the conservation and enhancement of the features of interest.

This Statement does not constitute consent for any of the 'operations requiring Natural England's consent'. The written consent of Natural England is required before carrying out any of those operations. Natural England welcomes consultation with owners, occupiers and users of the SSSI to ensure that the management of this site conserves and enhances the features of interest, and to ensure that all necessary prior consents are obtained.

Background

Despite previously being at the forefront of coal mining heavy industry, reclamation and restoration of post-industrial sites in this area has led to the development of several open water sites with associated habitat features of ditches, reedbed, fen, wet grassland scrub and wet woodland which now support important populations and assemblages of breeding and non-breeding birds.

Management Principles

The waterbodies should provide a variety of water levels and be of sufficient water quality to support the breeding and non-breeding bird interest. Increases in the amount of nutrients within the waterbody can lead to a loss of aquatic plants in favour of excessive growths of algae. This may result in a fundamental shift in the way a waterbody functions, reducing plant and invertebrate abundance and diversity, both of which are important food sources for a range of wetland birds. Increases in the amount of sediment entering a waterbody may smother stony beds and plants, reduce water depth in shallow waterbodies and increase the amount of nutrients present.

Sympathetic management of water levels is necessary for the maintenance of optimal water depths throughout the year (according to the requirements of the bird species present). For example, the presence of extensive shallow water and wet marginal substrates will provide the feeding conditions required by a variety of wintering, passage and breeding wildfowl, such as dabbling ducks and waders, whilst other species may require larger areas of open deep water. Structural diversity within and between stands of aquatic vegetation (including emergent, floating and submerged vegetation) can provide important habitat for the immature stages of many fish, and invertebrates including different dragonfly and damselfly species that require a wide variety of vegetation types. All of these features are essential in supporting large populations of waterbirds. In common with other freshwater systems, artificial water bodies are susceptible to the introduction of invasive species and some management may be necessary to control these if they occur.

Associated supporting habitats of reedbeds, fen, wet grassland, scrub and wet woodland should be managed in a way that supports the breeding and non-breeding bird interest, and this may require cutting and/or grazing. Timing and intensity of any grazing will depend on local conditions and the need to avoid trampling ground nesting birds. Agricultural operations in general should be avoided before mid-June to minimise disturbance to breeding birds or the destruction of nests and any

management should seek to minimise any harmful disturbance when the bird populations are likely to be under stress, such as the nesting season and severely cold conditions.

Habitats that support willow tit include wet woodlands, damp woodland margins, scrubby wetland margins, post-industrial sites with scrub and a high-water table, and occasionally mixed damp scrub along the edges of young plantations. There is a preference for thickets of young trees with populations faring best in woodland and scrub up to 30 years old. Willow tits rely on decaying standing timber in which to excavate nest holes and spend most of their time foraging in a dense shrub layer. They feed mainly on insects during the breeding season, and wet features within the habitat (such as springs, ponds, or a high-water table) will increase food abundance. Populations are more stable where suitable patches of habitat are connected through scrubby corridors. Mature hedgerows and scrub-lined river corridors and disused or active railway lines can all provide connectivity. Management should look to maintain early-successional woodland and scrub by slowing down or reversing the maturation of young woodlands; maintaining a low canopy with a dense shrub layer; maintaining or increasing soil moisture, particularly around nest sites to encourage deadwood availability. Exclusion or low intensity grazing from livestock or wild browsing animals (such as deer) may be required and there should be good connectivity between patches of habitat. Where wet features already exist, they should be maintained.

Date notified: 13 May 2021

Annex 3

List of operations requiring Natural England's consent

This is a legal document on which you have a right to make objections or representations, as explained in part 3 of this notification document.

Operations requiring Natural England's consent

Wildlife and Countryside Act 1981 Section 28 (4)(b)

The operations listed below may damage the features of interest of **Dearne Valley Wetlands SSSI**. Before any of these operations are undertaken you must consult Natural England and may require consent.

It is usually possible to carry out some of these operations in certain ways, or at specific times of year, or on certain parts of the SSSI, without damaging the features of interest. If you wish to carry out any of these activities please contact the Natural England Area Team, who will give you advice and where appropriate issue a consent. Please help us by using the 'notice form' (provided at notification and available on request) to ask us for consent to carry out these operations.

In certain circumstances it will not be possible to consent these operations, because they would damage the features of interest. Where possible the Area Team will suggest alternative ways in which you may proceed, which would enable a consent to be issued. To proceed without Natural England's consent may constitute an offence. If consent is refused, or conditions attached to it, which are not acceptable to you, you will be provided with details of how you may appeal to the Secretary of State.

Standard reference number	Type of operation
1.	Cultivation, including ploughing, rotovating, harrowing and re-seeding.
2.	Grazing and alterations to the grazing regime (including type of stock, intensity or seasonal pattern of grazing).
3.	Stock feeding and alterations to stock feeding practice.
4.	Mowing or cutting vegetation and alterations to the mowing or cutting regime (such as from haymaking to silage).
5.	Application of manure, slurry, silage liquor, fertilisers and lime.
6.	Application of pesticides, including herbicides (weed killers) whether terrestrial or aquatic, and veterinary products.
7.	Dumping, spreading or discharging of any materials.
8.	Burning and alterations to the pattern or frequency of burning.
9.	Release into the site of any wild, feral, captive-bred or domestic animal, plant, seed or micro-organism (including genetically modified organisms).
10.	Killing, injuring, taking or removal of any wild animal (including dead animals or parts thereof), or their eggs and nests, including pest control and disturbing them in their places of shelter.
11.	Destruction, displacement, removal or cutting of any plant or plant remains, including tree, shrub, herb, hedge, dead or decaying wood, moss, lichen, fungus, leaf-mould or turf.
12.	Tree and/or woodland management and alterations to tree and/or woodland management (including, planting, felling, pruning and tree surgery, thinning, coppicing, changes in species composition, removal of fallen timber).
13a.	Draining (including the use of mole, tile, tunnel or other artificial drains).
13b.	Modification to the structure of water courses (rivers, streams, springs, ditches, dykes and drains), including their banks and beds, as by re-alignment, regrading, damming or dredging.

Standard reference number	Type of operation
13c.	Management of aquatic and bank vegetation for drainage purposes.
14.	Alterations to water levels and tables and water utilisation (including irrigation, storage and abstraction from existing water bodies and through boreholes). Also the modification of current drainage operations (such as through the installation of new pumps).
15.	Infilling or digging of ditches, dykes, drains, ponds, pools, marshes or pits.
16a.	Freshwater fishery production and/or management, including sporting fishing and angling and alterations to freshwater fishery production and/or management.
20.	Extraction of minerals including, hard rock, sand and gravel, topsoil, subsoil, and spoil.
21.	Destruction, construction, removal, rerouting, or regrading of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks, including soil and soft rock exposures or the laying, maintenance or removal of pipelines and cables, above or below ground.
22.	Storage of materials.
23.	Erection of permanent or temporary structures or the undertaking of engineering works, including drilling.
26.	Use of vehicles or craft.
27.	Recreational or other activities likely to damage or disturb the features of special interest.
28a.	Game and waterfowl management and hunting practices and alterations to game and waterfowl management and hunting practice.
28b.	Use of lead shot.

Notes

i. This is a list of operations appearing to Natural England to be likely to damage the special features of the SSSI, as required under section 28 (4) (b) of the Wildlife and Countryside Act 1981.

ii. Where an operation has been granted a consent, licence or permission from another authority separate consent will not be required from Natural England. However, other authorities are required to consult Natural England before such consents, licences or permissions are issued.

iii. Any reference to 'animal' in this list shall be taken to include any mammal, reptile, amphibian, bird, fish, or invertebrate.

Date notified: 13 May 2021

National Grid Reference: SE434027

Annex 4

Map showing the land notified

This is a legal document on which you have a legal right to make objections or representations, as explained in part 3 of this notification document.

Appendix 6 – Breeding Bird Survey & Acoustic Bird Survey Methodology and Results – taken from Shaw Lane – Bird, Badger and Great Crested Newt Factual Survey Report, 20th June 2024, Baker Consultants

Shaw Lane
Bird, Badger and Great Crested Newt Factual Survey Report

20th June 2024

baker consultants

Report Contents

1 Introduction

1.1 Scope of Works

1.1.1 Baker Consultants was commissioned by Spawforths in February 2024 on to undertake the following update surveys:

- Data Trawl
- Breeding Bird,
- Badger,
- Great Crested Newt eDNA

1.1.2 This report takes into account standard guidance from a variety of sources including the Chartered Institute of Ecology and Environmental Management *1 2 3*, British Standards Institution *4*, and www.gov.uk *5*.

1.2 Study Area

1.2.1 The study area is located north of Shaw Lane, Carlton, Barnsley, with the central grid reference SE 37385 10333 – see Figure 1 below. The site is located in the rural-urban fringe, approximately 4.5km to the northeast of Barnsley, South Yorkshire.

1.2.2 It comprises a single arable field, with hedgerow margins to the north, south and west, and a small pond in the centre of the site, with some marginal vegetation. To the eastern boundary is a minor railway, with Shaw Lane to the south. The surrounding landscape is predominantly a mixture of arable and urban residential.

1 CIEEM (2018). Guidelines for Ecological Impact Assessment In The UK And Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.
2 CIEEM (2015). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
3 CIEEM (2017). Guidelines for Preliminary Ecological Appraisal. Chartered Institute of Ecology and Environmental Management, Winchester.
4 BSI (2013). BS42020:2013 Biodiversity – Code of Practice for Planning and Development
5 https://www.gov.uk/guidance/protected-species-how-to-review-planning-applications

Figure 1. Site Location

2 Methods

2.1 Introduction

2.1.1 Wherever appropriate, Natural England's Standing Advice on Protected Species 6 was taken into account, along with a wide range of other best practice guidance on survey methods. These are referenced in the text below. However, the professional judgement and expertise of the surveyors is always important when determining the site conditions and also when undertaking any detailed assessments. This may require adopting a bespoke approach, which may differ from the published guidance - where this is considered necessary case, detailed justification will be provided, as appropriate.

2.2 Surveyor Qualifications and Experience

2.2.1 Ecologist Martin Ledger (ACIEEM) completed three of the four breeding bird surveys, badger survey, and Great Crested Newt eDNA surveys. Martin has 13 years consultancy experience, and is an experienced bird surveyor, as well as experienced in carrying out Badger and GCN surveys.

2.2.2 Senior Ecologist Isabel Syddall completed one of the four breeding bird surveys. Isabel has over four years of professional experience in consultancy and has carried out numerous breeding bird surveys in this time as well as before this as a volunteer for her local Wildlife Trust where she undertook territory mapping surveys for wading birds, nightjar, and skylark.

2.2.3 Ecologist Rae Smith completed a Badger survey of the site. Rae has over two years consultancy experience, and in that time has carried out several appraisals of sites for Badger, targeted Badger surveys, bait marking surveys and Badger ECOW.

2.2.4 Assistant Ecologist Matthew Keough assisted during the eDNA survey. Matthew has 18 months consultancy experience, and in that time has undertaken several eDNA surveys.

2.3 Desk-study

2.3.1 A data search was undertaken for designated sites of nature conservation interest, priority habitats and records of protected and priority species. Data for these was gained through the sources listed in Table 1 below:

Table 1. Desk-study Data Sources

Organisation/source	Data sought	Search area
Multi-Agency Geographic Information for the Countryside (MAGIC)	Statutory designated sites, Habitats of Principal Importance	1km
Local Biological Records Centre	Non-statutory designated sites of nature conservation and records of protected/notable species.	1km

2.3.2 Natural England's online Impact Risk Zone tool was also consulted7. This identifies

6 https://www.gov.uk/guidance/protected-species-how-to-review-planning-applications
7 Available at: http://www.magic.gov.uk

whether developments are likely to have an impact on Sites of Special Scientific Interest (SSSIs), based upon their type and location, and whether Natural England should be consulted as part of the proposals.

2.4 Birds

2.4.1 The breeding birds survey broadly followed the 'Common Bird Census' method 8. This technique involves walking the site during the bird breeding season, while watching and listening for birds. The location and behaviour of every bird recorded during this survey is then mapped using a standardized system of notation.

2.4.2 The surveyor assessed all habitats on, and immediately adjacent to the site for evidence of breeding birds.

2.4.3 Four visits were undertaken to during the bird breeding season in suitable weather conditions. The visits were made either in the early morning, when birds are most active. The surveyors, dates, times and weather conditions during these surveys are detailed in Table 2.

Table 2. Breeding Birds Survey Conditions

Date	Surveyor	Sunrise	Survey Time	Weather conditions
21/03/2024	ML	06:05	07:40-08:25	8°C, 100% cloud, dry, BF1
29/04/2024	IS	05:34	06:27-07:16	6-8°C, 30% cloud, dry, sunny, BF3
15/05/2024	ML	05:04	05:50-06:35	12°C, 100% cloud, dry, BF1-2
04/06/2024	ML	04:40	07:25-08:00	15°C, 90% cloud, dry, sunny spells, BF3

Surveyor Key: ML = Martin Ledger; IS = Isabel Syddall

Automated bird survey

2.4.4 A single automated acoustic recorder was also deployed to record birds within and close to the site. The survey was undertaken in accordance with Passive Acoustic Survey methods outlined in the bird survey guidelines 9.

2.4.5 A Wildlife Acoustics SongMeter Mini recorder was deployed at two sampling points within the study area including at the central pond, and western site boundary (Figure 2). The acoustic frequency range 180 Hz to 10 kHz was recorded all day and night, with one minute acoustic recording every 10-minute interval. The deployment periods are provided in Table 3.

8 Marchant, J.H. (1983). Common Bird Census Instructions. British Trust for Ornithology, Tring.
9 Bird Survey & Assessment Steering Group. (2023). Bird Survey Guidelines for assessing ecological impacts, v.1.1.0. https://birdsurveyguidelines.org [14 Sep. 23].

Figure 2. Bird Automated Acoustic Detector Location

Table 3. Acoustic Detector Deployment Dates

	Detector ID	Deployment Dates
D1	SMU10111	20/03/2024 – 04/04/2024
D2	SMU10478	29/04/2024 – 15/05/2024
D3	SMU10478	15/05/2024 – 04/06/2024

2.4.6 After collection, the acoustic recordings were analysed to quantify the number of bird vocalisation and the bird species. The audio recordings were processed using Kaleidoscope Pro software, with bird vocalisation phrases being subject to identification initially through Cornell Lab @Birdnet Analyzer on Raven Pro *10*. Calls were then manually checked.

3 Results

3.1 Study Limitations

3.1.1 It is important to note that, even where data is returned for a desk-study, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest since the area may simply be under-recorded. Equally, due to the level of recording, some species should be considered more frequent than indicated by the records provided within a desk-study.

3.1.2 Whilst every effort was made in the field survey to provide a comprehensive description of the site, no investigation can ensure the complete characterisation and prediction of the natural environment. Also, natural and semi-natural habitats are subject to change, species may colonise the site after surveys have taken place and results included in this report may become less reliable over time.

3.1.3 Survey data is generally only considered valid if it is from the current or previous active season. In some cases, surveys up to 3 years old may be considered acceptable by consultees if the habitats have not significantly changed in the intervening period.

3.1.4 The water in Pond 1 was flowing, and it is assumed that it is connected to subsurface drains within the field. Running water generally not used by GCN, and samples taken from still edges among vegetation, so any traces of DNA should have been picked up. It should be noted that previous surveys found the pond to be mainly dry with very little open water.

3.1.5 Along the eastern boundary the scrub could not be accessed as it is railway land and also fenced off, however the lack of direct access was not considered to be a significant constraint as the birds surveyors could still observe activity and any signs of badger movement onto the site will still have been picked up.

3.2 Designated Sites

3.2.1 The desk-study provided information on the designated sites listed below in Table 4. Locations are provided in Appendix 1.

Table 4. Designated Sites

Name	Status	Location/distance	Interest
Statutory sites			
Dearne Valley Wetlands	SSSI	40m south east	Important for breeding birds including Gadwall, Shoveler, Garganey, Pochard Bittern, black Headed Gull and Willow Tit. Also important for non-breeding Gadwall and Shoveler. Supports diverse assemblage of breeding birds of lowland damp grassland, lowland scrub. Habitats including lowland open water and lowland fen.
Non-statutory sites			
49 – Barnsley Canal	LWS	40m west	A disused canal, with Reed Sweet-grass dominant. Supports several UKBAP species, including Reed Bunting, Grasshopper Warbler and Willow Tit.

Name	Status	Location/distance	Interest
60 – Rabbit Ings	LWS	850m north	A reclaimed colliery on low-lying wetland, with restoration works meaning the site is dominated by unimproved neutral grassland, scattered scrub and several waterbodies. A small area of dry heath and acid grassland is also present to the east. UKBAP species including Water Vole, Badger, Great Crested Newt, Grass Snake and Lapwing.

3.2.2 Natural England's online MAGIC tool identified that one SSSI is within 1km of the site.

3.2.3 The Dearne Valley Wetlands is c50m from the south eastern site boundary, to the east of the railway and south of Shaw Lane. This is a narrow strip of the SSSI, which covers an area of almost 650ha to the east of the site, stretching north and south.

3.2.4 The closest non-statutory designated site is Barnsley Canal LWS which lies 40m to the west of the site. Barnsley Canal LWS is a disused canal, designated for supporting several BAP species, including Reed Bunting, Grasshopper Warbler and Willow Tit.

3.3 Birds

Desk Study

3.3.1 The desk study returned over 2000 records for birds, including 107 species. Species include Barn Owl, Brambling, Cetti's Warbler, Cuckoo, Willow Tit and Yellow Hammer. Most records are associated with the Dearne Valley Wetlands SSSI (previously recorded as Carlton Marsh LWS). No records were could be attributed as being from within the site boundary.

Transect Survey

3.3.2 A total of 31 species of birds were recorded on the site or within the site boundary during the site transect surveys, of which two species were confirmed to be breeding (B) (chaffinch and magpie), nine probably breeding (Pr) and five possibly (Po) breeding. 15 species are considered to be non-breeding visitors (N).

3.3.3 Of the 31 species recorded during the site transects, 17 are considered to be notable species, listed on the BoCC5 amber or red list, included on Section 41 of Natural Environment and Rural Communities Act (2006) and/or mentioned within the citation of Dearne Valley Wetlands SSSI.

3.3.4 Of the 17 notable species, Dunnock, Reed Bunting, Woodpigeon and Yellowhammer were regarded as probable breeders on the site. See Appendix 2 for a detailed species list, their breeding status, the habitat in which the bird was recorded and their legal protection. Identified territories are provided in Appendix 3.

Automated Surveys

3.3.5 A total of 4,915 bird vocal registrations were identified during the automated detector survey on site. The highest number of vocalisations recorded were of Great Tit (753 recordings), Robin (655), Lapwing (623), Pheasant (454), Blackbird (335), Yellowhammer (316) and Long-Tailed Tit (219). During the transect surveys, Lapwing were suspected of breeding off-site to the north, which could explain the high number of calls recorded.

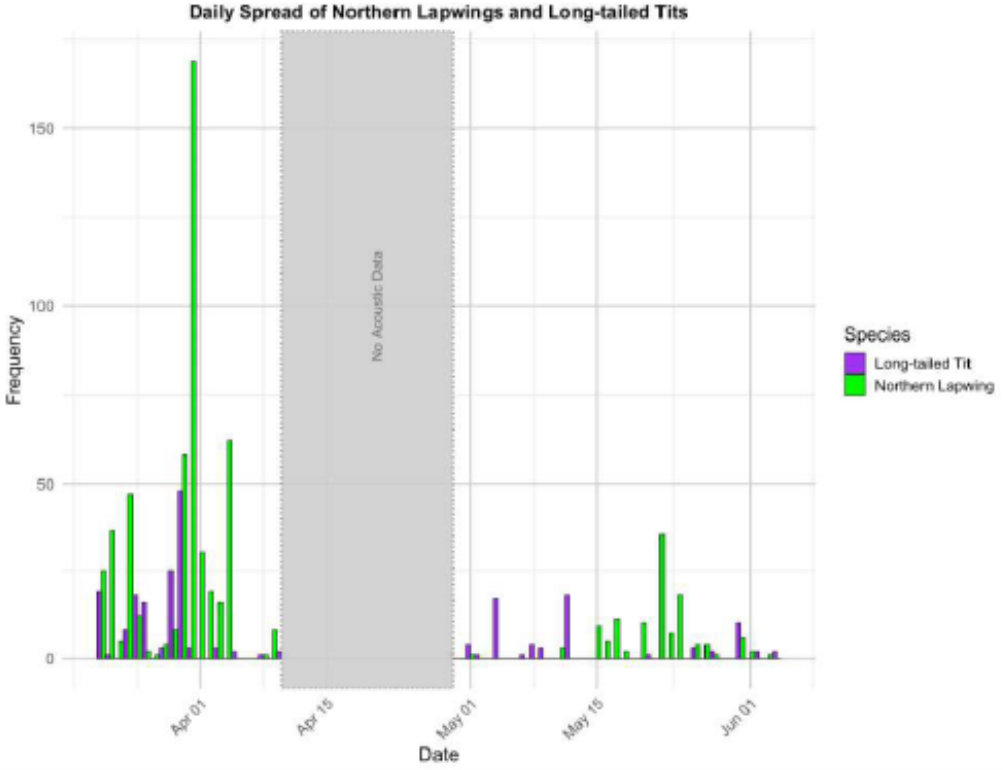
3.3.6 A total of 57 species were picked up on the detectors. Of these, 30 species were recorded also during the transect surveys, with Herring Gull being the only species from the transects not picked up on the recorder. This species was recorded as a single bird flying over the site.

3.3.7 The detector recorded an additional 27 species not recorded on or within the site boundary during the four breeding bird transects. These included Tawny Owl (55 recordings), Chiffchaff (31), Canada Goose (27), Linnet (25), Redwing (24), Coot (22), Whitethroat (22), Moorhen (21), Buzzard (15), Siskin (12), Teal (11), Black-Headed Gull (10), Kestrel (10), Little Owl (10) and Willow Warbler (10).

3.3.8 All additional birds detected were recorded in very low abundance (less than 10 recordings). The only species recorded less than 10 times on the recorders but were also noted during the site transects were Song Thrush (9), Carrion Crow (8 recordings), Reed Bunting (6 recordings), Feral Pigeon (5 recordings), Rook (5 recordings), Jay (4 recordings), Grey Wagtail (3 recordings) and Stock Dove (3 recordings).

3.3.9 The only species that were recorded in any numbers by the acoustics reordered were Lapwing and Long-Tailed Tit both of which feature in the SSSI citation. More detailed analysis of the acoustic date however shows that detections were not consistent across the season. For example, a large proportions of the Lapwing registrations occurred in one day.

Figure 4. Daily acoustic registrations of lapwing and Long-tailed Tit



3.3.10 Similarly the registrations of Long-Tailed Tit are highly inconsistent and none of this data can be interpreted to suggest the site is of particular importance for these species.

3.3.11 Many of the species picked up on the recorders but not during the site transects, (particularly those associated with water), are considered likely to have been recorded flying over the site, or occasionally foraging on site, rather than breeding on site.

3.3.12 Results from the static deployment are summarised in Appendix 2.

3.3.13 The site transect surveys found the site to be generally poor for breeding birds, with few habitats present that could support a significant number of individual birds and species.

3.3.14 Of the habitats present, the hedgerows were found to hold most bird interest, with all 10 confirmed / probable site breeding bird species being found there, although all were found only in small numbers.

3.3.15 The pond / scrub habitat on site also contained up to four probable breeding species, all of which were also suspected of breeding within the hedgerows.

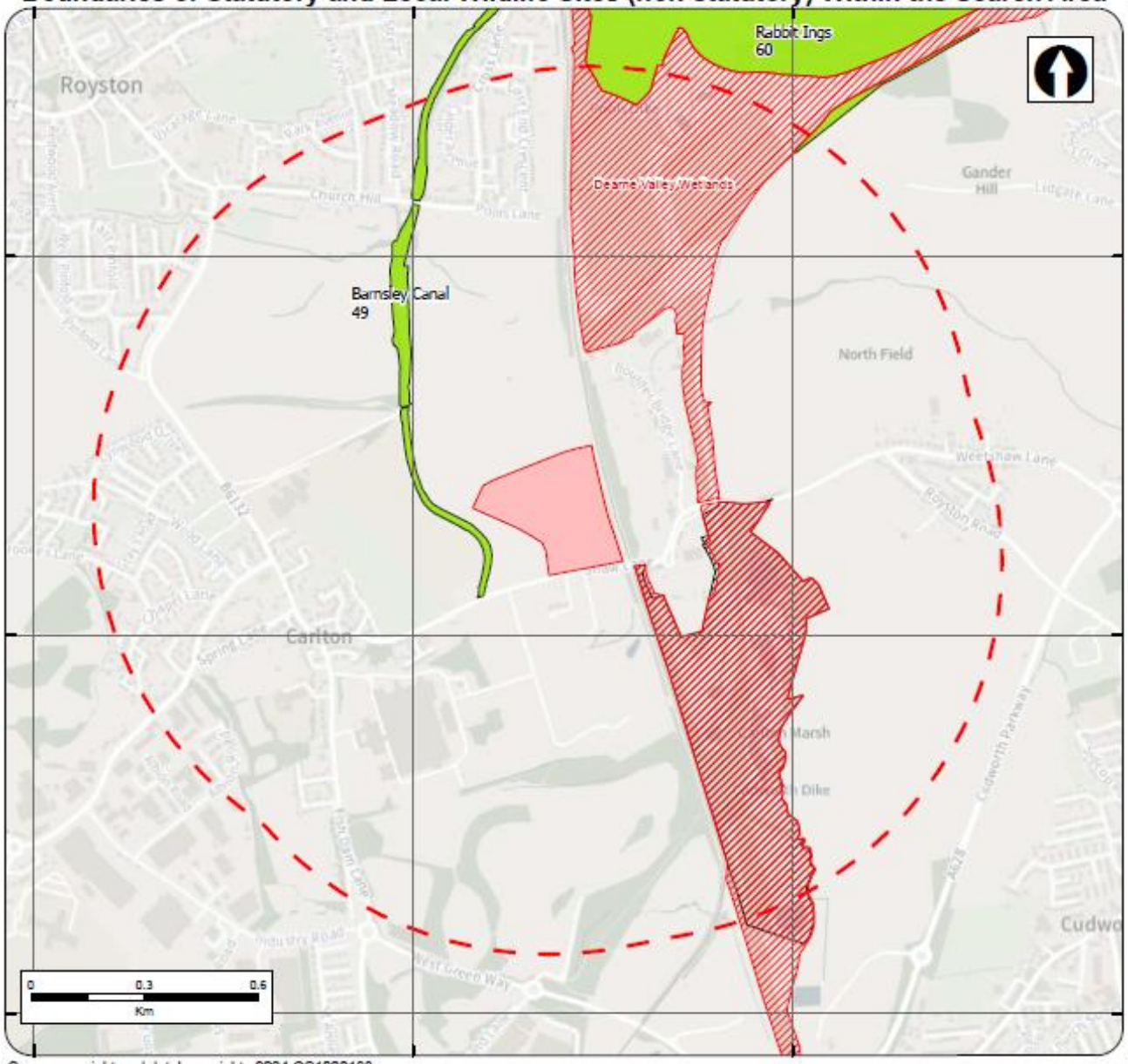
3.3.16 Of the bird species noted within the Dearne Valley Wetlands SSSI citation, only Reed Bunting and Yellowhammer were assessed as being probable breeders on site, with a maximum of four Yellowhammer territories noted and up to two Reed Bunting territories. The presence of such small numbers of these birds is not considered to be significant.

3.3.17 The majority of the site is composed of arable habitat, which is to be lost by the proposed development. No evidence was found of any bird species breeding within the arable habitat, with up to two Skylark noted intermittently singing over it, but with no evidence that they bred on-site. The loss of the arable habitat is therefore not considered likely to have any impact on ground nesting, arable birds such as Skylark.

3.3.18 The proposed development intends to retain, and in places re-plant gaps in the existing defunct hedgerows. This will avoid any negative impacts to the breeding bird assemblage on site, and may enhance the site for breeding and foraging birds.

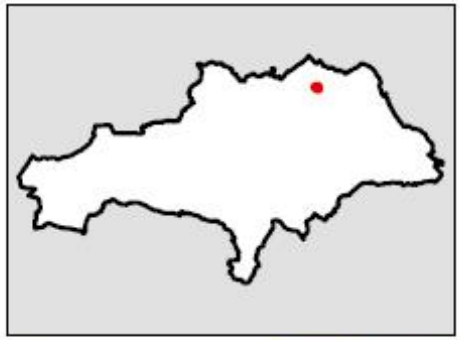
Appendix 1: Designated Site Locations

Boundaries of Statutory and Local Wildlife Sites (non-statutory) Within the Search Area



Land North Of Shaw Lane

- SSSI (England) © Natural England
- Barnsley Boundary
- Local Wildlife Sites - Barnsley
- LNR NEngland
- 1979 red line
- 1km radius



BARNSLEY Metropolitan Borough Council

Appendix 2: Breeding Bird Survey Data

Transect Results

Table 6. Notable Bird Species

Common Name	Scientific Name	Site Breeding Status and Breeding Habitat	Conservation Status	Listed within Dearne Valley Wetlands SSSI Citation?	BoCC Status
		Probable Breeding			
Dunnock	*Prunella modularis*	Hedgerows	Sect.41		A
Reed Bunting	*Emberiza schoeniclus*	Hedgerows/Pond habitat	Sect.41	Yes	A
Woodpigeon	*Columba palumbus*	Hedgerows			A
Yellowhammer	*Emberiza citronella*	Hedgerows	Sect.41	Yes	R
		Possible Breeding			
Long-Tailed Tit	*Aegithalos caudatus*	Hedgerows		Yes	G
Skylark	*Alauda arvensis*	Arable	Sect.41		R
Song Thrush	*Turdus philomelos*	Hedgerows	Sect.41		A
Wren	*Troglodytes troglodytes*	Hedgerows			A
		Non-breeding			
Greenfinch	*Carduelis chloris*	Non-breeding			R
Grey Partridge	*Perdix perdix*	Non-breeding	Sect.41		R
Grey Wagtail	*Motacilla cinerea*	Non-breeding			A
Herring Gull	*Larus argentatus*	Non-breeding			R
Lapwing	*Vanellus vanellus*	Non-breeding	Sect.41	Yes	R
Mallard	*Anas platyrhynchos*	Non-breeding			A
Meadow Pipit	*Anthus pratensis*	Non-breeding			A
Rook	*Corvus frugilegus*	Non-breeding			A
Stock Dove	*Columba oenas*	Non-breeding			A

Table 7. Common Bird Species

Common Name	Scientific Name	Site Breeding Status and Breeding Habitat
	Confirmed Breeding	
Chaffinch	*Fringilla coelebs*	Hedgerows
Magpie	*Pica pica*	Hedgerows
	Probable Breeding	
Blackbird	*Turdus merula*	Hedgerows
Blue Tit	*Cyanistes caeruleus*	Mature trees
Great Tit	*Parus major*	Hedgerows
Robin	*Erithacus rubecula*	Hedgerows
	Possible Breeding	
Goldfinch	*Carduelis carduelis*	Hedgerows
Pheasant	*Phasianus colchicus*	Hedgerow grass margins
	Non-breeding	
Carrion Crow	*Corvus corone*	Non-breeding

Common Name	Scientific Name	Site Breeding Status and Breeding Habitat
Feral Pigeon/Rock Dove	*Columba livia domesticus*	Non-breeding
Jackdaw	*Corvus monedula*	Non-breeding
Jay	*Garrulus glandarius*	Non-breeding
Pied Wagtail	*Motacilla alba*	Non-breeding
Red-Legged Partridge	*Alectoris rufa*	Non-breeding

Acoustic Detector Results

Table 8. Notable Bird Species

Common Name	Scientific Name	Count of Registrations			Conservation Status	Listed within Dearne Valley Wetlands SSSI Citation?	BoCC Status
		D1	D2	D3			
Bewick's swan	*Cygnus columbianus bewickii*	3		1	WCA1, BD, Sch.41		R
Black-headed Gull	*Chroicocephalus ridibundus*	10				Yes	A
Bullfinch	*Pyrrhula pyrrhula*	5			Sect. 41		A
Dunnock	*Prunella modularis*	161		36	Sect. 41		A
Greenfinch	*Carduelis chloris*	15		11			R
Grey Partridge	*Perdix perdix*			86	Sect. 41		R
Grey Wagtail	*Motacilla cinerea*	3					A
Greylag Goose	*Anser anser*	4					A
House martin	*Delichron urbicum*	1					R
Kestrel	*Falco tinnunculus*	10					A
Lapwing	*Vanellus vanellus*	504	4	115	Sect. 41	Yes	R
Lesser Whitethroat	*Sylvia curruca*	1	1	3		Yes	G
Linnet	*Carduelis cannabina*	25			Sect. 41	Yes	R
Long Tailed Tit	*Aegithalos caudatus*	149	50	20		Yes	G
Mallard	*Anas platyrhynchos*	36					A
Meadow Pipit	*Anthus pratensis*	30					A
Mistle Thrush	*Turdus viscivorus*	6		1			R
Moorhen	*Gallinula chloropus*	17		4			A
Redwing	*Turdus iliacus*	24			WCA1		A
Reed Bunting	*Emberiza schoeniclus*	4		2	Sect. 41	Yes	A
Rook	*Corvus frugilegus*	5					A
Skylark	*Alauda arvensis*	163		19	Sect. 41		R
Snipe	*Gallinago gallinago*	3				Yes	A
Song Thrush	*Turdus philomelos*	8		1	Sect. 41		A
Stock Dove	*Columba oenas*	3					A
Tawny Owl	*Strix aluco*	41	5	9			A
Teal	*Anas crecca*	8	2	1			A
Tree Pipit	*Anthus trivialis*	4		2	Sect. 41		R
Water Rail	*Rallus aquaticus*	1				Yes	G
Whitethroat	*Sylvia communis*			22			A

Common Name	Scientific Name	Count of Registrations			Conservation Status	Listed within Dearne Valley Wetlands SSSI Citation?	BoCC Status
		D1	D2	D3			
Willow Warbler	*Phylloscopus trochilus*	7		3			A
Woodpigeon	*Columba palumbus*	33	7	86			A
Wren	*Troglodytes troglodytes*	6		81			A
Yellowhammer	*Emberiza citrinella*	177	80	59	Sect. 41	Yes	R

Table 9. Common Bird Species

Common Name	Scientific Name	Count of Registrations		
		D1	D2	D3
Canada Goose	*Branta canadensis*	13	10	4
Carrion Crow	*Corvus corone*	1	7	
Coal Tit	*Parus ater*			3
Buzzard	*Buteo buteo*	15		
Chaffinch	*Fringilla coelebs*	1		18
Chiffchaff	*Phylloscopus collybita*	23		8
Blackbird	*Turdus merula*	77	17	241
Blue Tit	*Cyanistes caeruleus*	142	3	6
Coot	*Fulica atra*	21		1
Jackdaw	*Corvus monedula*	9		1
Jay	*Garrulus glandarius*	3	1	
Magpie	*Pica pica*	33	4	86
Siskin	*Carduelis spinus*	12		
Goldfinch	*Carduelis carduelis*	22	1	3
Robin	*Erithacus rubecula*	134	29	492
Grey Heron	*Ardea cinerea*	8		
Great Spotted Woodpecker	*Dendrocopos major*	8		
Great Tit	*Parus major*	751	1	1
Little Owl	*Athene noctua*	9		1
Red-legged Partridge	*Alectoris rufa*	9	7	18
Pheasant	*Phasianus colchicus*	238	100	116
Feral Pigeon	*Columba livia*	5		
Pied Wagtail	*Motacilla alba*	22	2	

Breeding Status

The breeding status of birds encountered within the survey area are classified in three categories as a result of behaviour observed during the surveys and following the criteria set out by the European Ornithology Atlas Committee.

Confirmed breeding	Nest containing eggs located. Nests with young seen or heard. Used nests or eggshells found. Recently fledged or downy young observed. Adults entering/leaving nest, particularly if with food or faecal sacs. Distraction display or injury feigning by disturbed adult.
Probable breeding	Pairs observed in suitable nesting habitat in the breeding season. Permanent territory presumed through registration or territorial behaviour on at least two different visits at the same place. Display and courtship behaviour observed. Birds seen visiting probable nest site. Agitated behaviour or anxiety calls from adults. Building nest or excavating nest hole.
Possible breeding	Species observed in breeding season in likely nesting habitat. Singing male(s) present or breeding calls heard.

Legislative Status

BB	All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended)
BD	Listed in Annex 1 of the Birds Directive (2009)
Sect.41	Section 41 species on Natural Environment and Rural Communities Act (2006)
WCA1	Listed in Schedule 1 of the Wildlife and Countryside Act 1981 (as amended)

Birds of Conservation Concern (BoCC)

Birds are included on the BoCC list after assessment against a set of objective criteria which places each species on one of three lists, green, amber or red, indicating an increasing level of conservation concern.

R	Species is red listed
A	Species is amber listed
G	Species is green listed
No status	Non-native species, not assessed

Appendix 3: Breeding Bird Survey Plan

Project Name: Shaw Lane
Project Number: 1979
Project Location: Barnsley, South Yorkshire

Plan Title: Breeding Bird Results - Confirmed and Probable Breeders

Client: Spawforths on behalf of Network Space

Map scale: 1 : 1,800 @A4	Drawn by: RB	Date: 20/06/2024

baker consultants
ECOLOGY DEVELOPMENT INNOVATION

Cromford Station, Cromford Bridge, Matlock, DE4 5JJ | Company No. 06702199 | 01629 593 958 | bakerconsultants.co.uk