



Stockport Metropolitan Borough Council

Regulation 19 Local Plan 2026 - 2042

Information to Inform Habitats Regulations
Assessment





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Executive Summary

WSP UK Ltd. ('WSP') have been commissioned by Stockport Metropolitan Borough Council to provide information to inform Habitats Regulations Assessment (HRA) in relation to Stockport's Local Plan, period 2026 – 2042.

This information to inform HRA has considered the potential effects of the Local Plan on European sites, including Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites, identified within the relevant Zones of Influence (Zol).

The assessment considered all relevant impact pathways, including direct effects, hydrology and water quality, invasive non-native plant species, recreational pressure, noise, lighting and air quality. The majority of these pathways were screened out at Stage 1, as no credible Likely Significant Effect (LSE) was identified. Air quality was taken forward to Stage 2 (Appropriate Assessment) as the potential for effects could not be excluded at Stage 1.

The Stage 2 assessment considered the potential effects that could result from changes in air quality from an increase in airborne nitrogen oxides NO_x and ammonia NH₃ or from nitrogen deposition and acid deposition at the relevant European sites, including the South Pennine Moors SAC, Peak District Moors (South Pennine Moors Phase 1) SPA, and Rochdale Canal SAC. The assessment considered the magnitude and location of the predicted changes, the habitats and qualifying features present, the conservation objectives of the sites and relevant site-specific evidence. The assessment concluded that the predicted effects would not adversely affect the integrity of the European sites assessed.

For the South Pennine Moors SAC and Peak District Moors (South Pennine Moors Phase 1) SPA, the Plan-alone modelling did not identify any air-quality contribution exceeding 1% of the relevant screening benchmark. Potential exceedances were identified only when the Local Plan was considered in combination with other relevant plans and projects. These effects were assessed in detail, including consideration of the limited areas of affected habitat, and were not found to adversely affect the integrity of the SAC or SPA.

For the Rochdale Canal SAC, both Local Plan-alone and in-combination air-quality modelling results were considered. The results were broadly similar, with only very small differences that do not materially affect the assessment conclusions.

Overall, it is concluded that the Local Plan will not adversely affect the integrity of any European site considered within this HRA, either alone or in combination with other plans and projects. No further assessment under the Habitats Regulations is therefore required in relation to the Local Plan.

1 Introduction

1.1 Background

- 1.1.1. This Habitats Regulations Assessment (HRA) has been prepared by WSP UK Ltd ('WSP') on behalf of Stockport Metropolitan Borough Council (the 'Client'). The report has been produced concerning Regulation 105 of the Habitat Regulations 2017 (as amended) (the 'Habitats Regulations') (His Majesty's Stationery Office (HMSO), 2017).

1.2 Local Plan Background

- 1.2.1. A Stage 1 Habitats Regulations Assessment (HRA) Screening was submitted to the Competent Authority (CA), Stockport Metropolitan Borough Council (SMBC), in October 2025 (WSP, 2025), to support Regulation 18. The final version of the Reg 18 HRA incorporated comments received following consultation with Natural England, further explained in **section 1.4**.
- 1.2.2. The current SMBC Core Strategy Development Plan Document (Stockport Metropolitan Borough Council, 2011) sets out the planning policies for Stockport to 2026, in conjunction with policies saved from the Stockport Unitary Development Plan (SMBC, 2006). SMBC has provided further guidance in the Stockport Local Development Scheme (SMBC, 2025), Greater Manchester Joint Plans (GMCA, 2024) and Supplementary Planning Documents (GMCA, 2025) and Supplementary Planning Guidance (SMBC, 2023). SMBC has drafted the Local Plan under Regulation 19 of the Town and Country Planning (Local Planning) (England) Regulations 2012, which will cover the planning period to 2042, and combine the existing plans, schemes, policies and guidance into a single Local Plan.
- 1.2.3. The Places for Everyone (PfE) Plan (Greater Manchester Ecology Unit, 2022) is also important in the context of Stockport's Local Plan and includes an associated HRA, the conclusion of this HRA has been taken into consideration when determining whether or not likely significant effect will occur in relation to the Stockport Local Plan.
- 1.2.4. The Regulation 19 (Pre-Submission) Local Plan sets out the strategic vision, objectives and spatial strategy for the borough, as well as the planning policies which will help to determine the future location, scale, type and design of new development in Stockport.
- 1.2.5. The current planning policies and supporting documents are available at <https://www.stockport.gov.uk/topic/current-planning-policies>. The Local Plan includes strategic and development management policies and site allocations covering the plan period 2026 – 2042:
- Provision for 29,599 homes over the Local Plan period (the quantum of growth), across allocated residential sites.
 - Provision of a combined 82,000m² of employment space, over two allocated employment sites, shown on **Figure A-2**.
 - Policies providing geographical direction for development (typically specific housing and minerals site allocations, but also implicit location preferences for certain activities or sectors prescribed through (for example) areas of search);
 - Policies broadly supporting development or other changes, but which do not specify a quantum or location;

- Various development control policies that set out SMBC's tests or expectations when considering proposals, such as safeguarding policies, environmental protection policies or policies relating to design or other qualitative criteria.

1.3 Habitats Regulations Assessment

Legislative Context

- 1.3.1. Regulation 105 of the Habitat Regulations 2017 (as amended) states that the plan making authority for that plan must, before the plan is given effect, make an appropriate assessment of the implications for the site in view of that site's conservation objectives.
- 1.3.2. In assessing the effects of a development plan in accordance with Regulation 105 of the Conservation of Habitats and Species Regulations 2017 (as amended) (the 'Habitats Regulations'), there are potentially two tests to be applied by the competent authority: a 'Significance Test' followed, if necessary, by an Appropriate Assessment which would inform the 'Integrity Test'. The relevant sequence of steps is as follows:
 - Step 1: Under Reg. 105(1)(b), consider whether the plan is directly connected with or necessary to the management of the sites. If not, proceed to Step 2
 - Step 2: Under Reg. 105(1)(a), consider whether the plan is likely to have a significant effect on a Habitats Site, either alone or in combination with other plans or projects (the 'Significance Test'). If yes, proceed to Step 3 (Stage 1 and 2 are undertaken as part of Stage 1 : HRA Screening)
 - Step 3: Under Reg. 105(1), make an Appropriate Assessment of the implications for the Habitats Site in view of its current conservation objectives (the 'Integrity Test'). In so doing, it is mandatory under Reg. 105(2) to consult Natural England, and optional under Reg. 105(3) to take the opinion of the general public.
 - Step 4: In accordance with Reg. 105(4), but subject to Reg. 107, give effect to the land use plan only after having ascertained that the plan would not adversely affect the integrity of a Habitats Site. 3.8 [This step follows Stage 2 where a finding of 'no adverse effect' is concluded. If it cannot be, it proceeds to Step 5 as part of Stage 3 of the HRA process].
 - Step 5: Under Reg. 107, if Step 4 is unable to rule out adverse effects on the integrity of a Habitats Site and no alternative solutions exist then the competent authority may nevertheless agree to the plan or project if it must be carried out for 'imperative reasons of overriding public interest' (IROPI).
- 1.3.3. Unlike Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), Ramsar sites do not generally have formally published Conservation Objectives. Accordingly, where a Ramsar site overlaps wholly or substantially within an SAC and/ SPA (in terms of both spatial overlap and the reasons for designation), the published Conservation Objectives for the overlapping European sites have been used to inform the assessment. Although these Conservation Objectives were not prepared specifically for the Ramsar site, they provide an appropriate basis for assessing the conservation interests where they overlap and represent the most precautionary and robust approach currently available.
- 1.3.4. Following the UK's departure from the European Union, the UK Government has issued guidance (Department for Environment, Food & Rural Affairs et al., 2021) on the implementation of these regulations, providing detailed instructions on implementing the regulations and conducting assessments, to ensure continuity in habitat protection despite the departure from the EU. This guidance clarified that:

“SACs and Special Protection Areas (SPAs) in the UK no longer form part of the EU’s Natura 2000 ecological network. The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 have created a national site network on land and at sea, including both the inshore and offshore marine areas in the UK. The national site network includes:

- *existing SACs and SPAs*
- *new SACs and SPAs designated under these Regulations.*

Any references to Natura 2000 in the 2017 Regulations and in guidance now refers to the new national site network.

Maintaining a coherent network of protected sites with overarching conservation objectives is still required in order to:

- *fulfil the commitment made by government to maintain environmental protections; and*
- *continue to meet our international legal obligations, such as the Bern Convention, the Oslo and Paris Conventions (OSPAR), Bonn and Ramsar Conventions”.*

National Planning Policy Framework 2026 (NPPF)

- 1.3.5. The NPPF (Ministry of Housing, Communities and Local Government [MHCLG], 2026) sets out the Government’s planning policies for England and how these should be applied. It provides a framework within which locally prepared plans and other development can be produced. The NPPF must be considered in the preparation of the Draft Plan and is a material consideration in planning decisions. Its policies guide the delivery of sustainable development, ensuring that the Draft Plan contributes to meeting national priorities in a locally responsive manner.

N6: Areas of particular importance for biodiversity and geodiversity

- 1.3.6. NPPF Policy N6 states:

“1. To support the conservation of important habitats, species and sites of geodiversity value, development proposals affecting:

- a. A site of international importance, which for the purpose of this policy is a habitats site¹, should be refused unless:*
 - i. An appropriate assessment has concluded that the proposal will not adversely affect the integrity of the site (either individually or in combination with other developments), or the proposal can satisfy the derogation tests; and/or*
 - ii. The impact of development on the relevant protected features of the protected site is being addressed through an Environmental Delivery Plan² which has been made and the developer has committed to paying the nature restoration levy.”*

¹ Any site which would be included within the definition at regulation 8 of the Conservation of Habitats and Species Regulations 2017 and also including candidate Special Areas of Conservation or Special Protection Areas, listed or proposed Ramsar sites, relevant Marine Sites, and compensatory habitats which relate to these sites (Potential Special Protection Areas, possible Special Areas of Conservation and proposed Ramsar sites are sites on which the Government has initiated public consultation on the scientific case for designation as a Special Protection Area, candidate Special Area of Conservation or Ramsar Site).

² The Draft Plan is not relying on the Environmental Delivery Plan route referred to in NPPF Policy N6(1)(ii). No conclusion in this HRA is based on an Environmental Delivery Plan having been made or on the payment of the nature restoration levy. The potential effects of the Draft Plan on European sites are instead assessed through the Habitats Regulations Assessment process.

Case Law Context

- 1.3.7. In HRA, case law plays a crucial role in defining how the Habitats Regulations should be interpreted and applied. It outlines the legal standards and procedural requirements that must be followed during the assessment process.
- 1.3.8. For example, the *People Over Wind and Peter Sweetman v Coillte Teoranta*, 2018) clarified an important point in the HRA process: mitigation measures cannot be considered during the initial screening stage. This means that when determining whether a project or plan is likely to have a significant effect on a European site, one must assess the potential impacts without factoring in mitigation. Mitigation can only be considered as part of an appropriate assessment.

Stages of Habitats Regulations Assessment

- 1.3.9. Guidance on the Habitats Directive (European Commission, 2019³) set out a step wise approach which should be followed to enable Competent Authorities to discharge their duties under the Habitats Directive and provides further clarity on the interpretation of Articles 6 (3) and 6 (4). This process is used in HRA and is usually summarised in three distinct stages of assessment.
- **Stage 1: Screening** – the process to identify the likely effects of a plan or project upon the qualifying features and conservation objectives of a European site, either alone or in combination with other plans or projects and consider whether there will be an Likely Significant Effect (LSE).
 - **Stage 2: Appropriate Assessment** – detailed consideration of LSEs and whether they would lead to significant adverse effects on the integrity of the European site, either alone or in combination with other plans and projects. Where there are adverse effects, mitigation is considered to avoid or offset them. If these mitigation options cannot avoid adverse effects, the Local Plan can only be adopted if Stage 3 is followed.
 - **Stage 3: Derogation** –
 - Assessment of alternative solutions: If an effect on integrity cannot be ruled out – even after mitigation – then it is necessary to see if there are alternative solutions, which could deliver the objectives of the Project or Plan, that would be less damaging or avoid damage to the European site in question.
 - Imperative reasons of overriding public interest (IROPI): Assessment of whether the development is necessary for IROPI.
 - Compensatory measures: Where the Project or Plan is justified by IROPI, appropriate compensatory measures must be secured to maintain the overall coherence of the site or integrity of the European site.
- 1.3.10. This report presents information to enable Stages 1 and 2 of the HRA process, to establish whether or not the Local Plan would have a LSE (Screening, Stage 1) or risk an adverse effect on integrity (Appropriate Assessment, Stage 2) of any European site.
- 1.3.11. The precautionary principle is applied at all stages of the HRA process. In relation to screening for LSE, this means that in relation to the Local Plan where effects are considered likely and those where uncertainty exists as to whether effects are likely to be significant must be subject to an

³ European Commission, Directorate-General for Environment. (2019). *Managing Natura 2000 sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC*. Publications Office. Available at: <https://data.europa.eu/doi/10.2779/02245>.

Appropriate Assessment. The screening process is wide-ranging and takes into consideration the sensitivity and mobility of European sites' Qualifying Features, e.g. bird species, as well as the nature of the development and activities enabled or influenced by the Local Plan and relevant embedded working methods established through its policies.

1.4 Consultation

- 1.4.1. Feedback on the HRA of the Draft Plan at Reg 18 Stage of the Draft Plan (hereafter referred to as 'Reg18 HRA') (TCPA Ref.) (version2) (WSP, 2025) was received on 17 December 2025. The recommendations and comments provided in Natural England's response letter (NE, 2025) have informed this assessment and the Draft Plan responses to these comments are presented in **Table 1-1 – Comments received from Natural England**.

Table 1-1 – Comments received from Natural England

Comments	Plan Response
<u>Section 6.5, Table 6-4</u> <i>Effects on functional habitats or species away from European sites</i> Within table 6-4, for Rostherne Mere Ramsar and Midland Meres & Mosses – Phase 1 Ramsar, it would be useful to summarise what the site is designated for to support the conclusion, as has been done for the above sites.	This has been addressed in Table 2-2 – Details of Relevant European sites..
<u>Section 7.1, Paragraph X.X.X</u> Natural England welcomes the approach to air quality within the HRA, with the intention to review conclusions once appropriate transport model data is available. We also agree with the HRA's approach to recreational disturbance and screening in the Peak District Moors (South Pennine Moors Phase 1) Special Protection Area (SPA) for Appropriate Assessment. However, Natural England directs you to the South Pennine Moors Supplementary Planning Document (SPD) for further guidance on the necessary approach. As described in the SPD, our current organisational policy around the instigation of Strategic Solutions for recreational disturbance requires robust evidence of impact upon the conservation status of the site due to recreation pressure in order to support a new strategic solution. In this instance, there is no piece of ecological evidence showing this for the SPA, so there is no need to provide mitigation	Comment on recreational disturbance has been addressed within paragraph 3.4.4 – Recreational Pressure, and a summary of European Sites screening in relation to recreational pressure is described in Table 3-3.

Comments	Plan Response
towards the site under the requirements of the Habitats Regulations.	

1.5 Purpose of this Report

- 1.5.1. The purpose of this report is to undertake a Habitats Regulations Assessment of the Local Plan (Regulation 19), having regard to the findings and evidence presented in the Regulation 18 HRA, relevant updates to the evidence base, guidance and legislation, and comments received from Natural England (NE, 2025). The HRA considers the potential for the Local Plan, either alone or in combination with other plans and projects, to result in likely significant effects (LSE) on European sites.
- 1.5.2. The assessment has been undertaken from first principles, with the Regulation 18 HRA and its supporting evidence used as relevant evidence where applicable, rather than assuming that its previous screening conclusions remain applicable. The Local Plan's policies have been reviewed to identify potential impact pathways, including direct and indirect pathways, whilst considering any relevant embedded measures established through the Local Plan's policy framework. Where potential LSE cannot be excluded, the relevant impact pathway and European site are progressed to Appropriate Assessment to determine whether the Local Plan would adversely affect the integrity of the site, either alone or in combination with other plans and projects.
- 1.5.3. The findings of the HRA, including the basis for screening conclusions and any Appropriate Assessment undertaken, are clearly set out to provide the information required to inform the Competent Authority's consideration of the Local Plan under the Habitats Regulations.

1.6 Development Proposed in the Local Plan

- 1.6.1. Any development proposed in the current Local Plan, including development associated with site allocations and development, including any permits and consents, brought forward through other Plan policies, will be subject to its own HRA where required under the Habitats Regulations.
- 1.6.2. The approach, evidence base and relevant Plan policies considered within this HRA may be used to inform the scope and methodology of subsequent project-level assessment, where appropriate. However, the conclusions of this HRA will not be directly transposed to individual development proposals. Project-level HRA will need to consider the specific nature, scale, location and effects of the development and, where required, be supported by project-specific surveys, modelling and other assessment.
- 1.6.3. Where this HRA has relied upon a draft Plan policy as an embedded measure, the relevant policy and the evidence underpinning its consideration in this HRA may be taken into account in project-level assessment where applicable to the development concerned. However, the identification of a policy or embedded measure within this HRA will not, in itself, demonstrate that the effects of an individual development have been addressed. The project-level assessment will need to establish the relevance and effectiveness of the relevant policy or measure to the development in question and identify any additional mitigation, avoidance or monitoring measures required.
- 1.6.4. Where a development is directly delivered through or is otherwise subject to the direct control or requirements of, an organisation responsible for implementing the Local Plan, the relevant draft Plan-level embedded measures may be incorporated into the project-level assessment where

directly applicable. This does not remove the requirement for project-level HRA where required, or the need for project-specific assessment and modelling where necessary.

- 1.6.5. This approach allows the Local Plan-level HRA to provide a relevant evidence base and inform the assessment of development coming forward under the Local Plan, while ensuring that the effects of individual development proposals are assessed on their own merits and that any project-specific effects are appropriately addressed through the relevant permission or authorisation. Where mitigation, avoidance or monitoring measures are identified as necessary through project-level assessment, these will need to be appropriately secured through formal conditions, restrictions or other enforceable requirements attached to the relevant permission or authorisation.

2 Identifying Relevant European Sites

2.1 Overview

- 2.1.1. This section of the report discusses the impact pathways through which the Local Plan could lead to a conceivable risk of harm to European sites. To inform the assessment, this section outlines:
- The specific impact pathways associated with the Draft Plan that could potentially result in impacts to qualifying interests (i.e. reasons for designation) of the European site(s); and
 - The spatial extent over which these impact pathways may have a material effect (the 'potential Zone of Influence (Zol)').

2.2 Potential Zones of Influence

- 2.2.1. The potential zone of influence (Zol) of a Local Plan varies according to the aspect being considered (for example, noise effects would rarely extend more than a few hundred metres from the source), and so it is not usually appropriate to employ 'arbitrary' spatial buffers to determine those European sites that should be considered within an HRA.

Direct Habitat Loss or Damage

- 2.2.2. Activities may result in the direct loss of, or physical damage to, habitats within the Local Plan's footprint and adjacent areas. The study and potential Zol for this pathway relates to changes in habitat extent, structure or condition arising from site clearance, vegetation removal, groundworks, construction compounds, access requirements and other activities.

Changes to Air Quality

- 2.2.3. Construction related impact pathways are limited to dust and traffic-related emissions. Emissions from on-site construction machinery are scoped out as they are not considered to represent a material air-quality pathway for the residential and employment related developments proposed through the Local Plan.

Air Quality Changes due to Dust

- 2.2.4. The Institute for Air Quality Management (IAQM, 2024⁴) identifies a Zol of 50m for dust dispersal from the boundary of the relevant development, 50m of the route(s) used by construction vehicles on the public highway, and up to 250m from the site entrance(s), which may occur during the construction of the relevant development.

Air Quality Changes due to Traffic Flows (Predicted Environmental Contribution)

- 2.2.5. The weighted average 'travel to work' distance for the Stockport area is 10.7km, based on travel-to-work data (Office for National Statistics 2021). A 10.7km study area is applied around the Local Plan area to identify European sites that could potentially be relevant to traffic arising from development associated with the Local Plan. The European sites identified within the study area are therefore considered against the relevant road network and the potential distribution of Local Plan-related traffic.

⁴ IAQM (2024). *Guidance on the assessment of dust from demolition and construction*. Version 2.2. Available at: <https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-Dust-Guidance-Jan-2024.pdf>.

- 2.2.6. Nitrogen-sensitive European sites within 200m of the edge of a new road or an existing road where the Local Plan could result in additional traffic are considered potentially relevant to road traffic emissions and are therefore included within the assessment. This approach follows Natural England's current standing advice on air pollution and development (NE, 2025b). Where affected roads are more than 200m from a protected site, the potential for road-traffic-related air-quality effects is considered capable of being screened out, unless site-specific circumstances provide a credible basis for effects to extend beyond this distance (NE, 2018).
- 2.2.7. Where an assessment of air quality impacts is undertaken, reference is made to the critical levels and lower critical loads⁵ of the qualifying habitats/habitats supporting qualifying features as listed on the Air Pollution Information System (APIS)⁶. APIS is a publicly available support tool for UK conservation and regulatory agencies, industry and local authorities to help assess the potential effects of air pollutants on habitats and species. It aims to enable a consistent approach to air pollution assessment across the UK. This specifically includes informing assessments required under the Habitats Regulations. Consequently, reference has been made to the information contained within the APIS website where relevant, throughout this document.
- 2.2.8. Where an assessment of air quality impacts is undertaken and the critical level or critical load is exceeded, but (as a result of the Draft Plan alone or in combination with other plans and projects) the increase (alone or in combination with other plans and projects) is less than 1% of the critical level or load, the impact is considered unlikely to result in a significant effect. Where the increase (alone or in combination with other plans and projects) is greater than 1% of the critical level or load, it is considered potentially significant and further consideration is required (NE, 2025b).

Natural England's Internal Guidance

- 2.2.9. In June 2018, Natural England (NE) published guidance on their approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations (NE, 2018). The document draws upon LA105 guidance (Design Manual for Roads and Bridges (DMRB) 2024⁷) which takes into account the need to assess 'in combination' effects on European sites as a result of air pollution.
- 2.2.10. The guidance provides a framework for the assessment of road traffic emissions and subsequent effects on European sites. Notably:
- Step 1 – Does the proposal give rise to emissions which are likely to reach a European site?
 - Step 2 – Are there qualifying features within 200m of a road sensitive to air pollution?
 - Step 3 – Could the sensitive qualifying features of the site be exposed to emissions(?), and
 - Step 4 – Application of the Screening Thresholds.
 - Step 4a: apply the threshold alone.

⁵ The critical level for oxides of nitrogen (NO_x) is fixed for all vegetation and is expressed as a concentration: 30µg/m³. The critical level for ammonia (NH₃) is also expressed as a concentration and is set at 3µg/m³ for higher plants and at 1µg/m³ where bryophytes or lichens are present and considered to be an important part of the ecosystem. The critical load for nitrogen deposition is specific to the qualifying feature. Critical Loads are presented as a lower to upper range of values and the lowest value is typically used in the assessment of effects. The relevant assessment benchmark for pollutant levels which deposit from the air is referred to as a critical load expressed in units of kg N/ha/yr.

⁶ Air Pollution Information System (APIS) (2016). *Air Pollution Information System*. Available at: <https://www.apis.ac.uk/>

⁷ Design Manual for Roads and Bridges (DMRB) (2024). *LA105: Air Quality (vertical barriers)*. Standards for Highways, Department for Transport, United Kingdom. Version 0.1.0. Available at: <https://www.standardsforhighways.co.uk/tse/attachments/af7f4cda-08f7-4f16-a89f-e30da703f3f4>

- Step 4b: apply the threshold in combination with emissions from other road traffic plans and projects; and
- Step 4c: apply the threshold in combination with emissions from other non-road plans and projects.
- Step 5: Advise on the need for Appropriate Assessment where thresholds are exceeded, either alone or in combination.

2.2.11. The relevant thresholds in relation to Step 4 are as follows:

- Changes in Annual Average Daily Traffic (AADT) of 1,000 vehicles a day (or more); and/or
- Changes of 1% of the relevant Critical Load and/or Critical Level as a result of the Draft Plan.

Changes to Noise and Vibration

2.2.12. Noise and vibration may result in disturbance or displacement of mobile⁸ qualifying features of European sites where such features occur within the relevant Zol. For the purpose of screening, construction noise is considered likely to affect sensitive qualifying features within a precautionary 500m, while ground-borne vibration is considered within a precautionary 200m of active working or operational areas.

Changes to Lighting and Visual Baseline

2.2.13. Visual disturbance from a construction workforce, use of machinery, lighting, etc., can potentially cause disturbance/severance responses in mobile qualifying features of European sites. The use of operational and security lighting has the potential to cause disturbance to Annex II species forming part of the SAC, SPA population, as well as mobile species covered by the relevant Ramsar criteria. For the purpose of screening, an initial, precautionary Zol of up to 200m of the Local Plan is applied.

Changes to Water Quality and Flow

2.2.14. Hydrology and hydrogeological effects during construction and operation of relevant allocations are considered wherever there is a surface-water or groundwater connectivity providing a potential pathway between the Local Plan and European sites. This includes the potential for changes in water quality arising from construction activities, such as risks associated with accidental spills, washout or contaminated runoff that could enter connected drainage catchments. Consideration is therefore based on the presence of a credible hydrological pathway rather than predefined separation distances.

Introduction of Invasive Non-native Plant Species (INNPS)

2.2.15. Introduction of the INNPS could occur if seeds or plant fragments are accidentally carried by vehicles, machinery, imported materials, soil movement, or construction activities. Ground disturbance and temporary soil storage can create bare or nutrient-rich areas where these species can easily establish and spread. If this happens, invasive plants may outcompete native vegetation, change habitat structure, and indirectly affect important habitats or species in nearby European sites.

⁸ Animal species capable of moving between habitats and using areas outside a designated site where those areas provide functions necessary to support the species, such as foraging, commuting, breeding, resting or sheltering. Such areas may constitute functionally linked habitat where they are ecologically connected to and support the qualifying features of a European site.

Recreational pressure

- 2.2.16. Many European sites are vulnerable to some degree of impact as a result of recreational pressure, although the effects of recreational pressure are complex and very much dependent on the specific conditions and qualifying features at each site. Local plans can influence recreational pressure through their allocations and associated controls. The influx of residents in Stockport potentially could lead to an increase in the number of people partaking in recreational activities in the surrounding countryside.
- 2.2.17. The 10.7km weighted average ‘travel to work’ distance also provides an evidence-based indication of the typical distance travelled by people within the Stockport area and is therefore used to inform the spatial consideration of recreational pressure. As described above for air quality, the 10.7km study area is used to identify European sites potentially relevant to the assessment, following which the road-network distance is considered to establish the potential relationship between the Local Plan area and each European site. The potential for increased recreational use is then considered having regard to accessibility, the nature and scale of development associated with the Local Plan, and the characteristics and sensitivity of the relevant European site.

2.3 Functionally Linked Land

- 2.3.1. The Zols identified for the construction and operational phases apply to the European sites as well as qualifying mobile species utilising areas outside the European site boundary within the wider landscape. Where such areas are important for supporting ecological functioning of the qualifying features, they are referred to as functionally linked land⁹ (FLL). Direct or indirect impacts within FLL might impact species of interest commuting, migrating, resting, and/or foraging within/adjacent to the Local Plan, if present. This includes both temporary and permanent changes to FLL, such as physical habitat loss/severance and air quality related degradation.
- 2.3.2. A study area of 15km is used to identify European sites supporting qualifying bird features, reflecting the typical foraging, roosting and commuting ranges of many SPA and Ramsar bird species.
- 2.3.3. A study area of 30km is used to identify European sites supporting qualifying bat features, as some Annex II bat species, such as greater horseshoe bat *Rhinolophus ferrumequinum* and lesser horseshoe bat *Rhinolophus hipposideros*, can commute and forage over substantial distances.

2.4 European Sites Identification

- 2.4.1. The study areas and potential Zols defined above have been applied to identify European sites with potential impact pathways are summarised in **Table 2-1** below.

⁹ Functionally linked land refers to areas outside a designated European site that support key ecological functions of the site’s qualifying features – for example, feeding, roosting, or commuting habitat used by species for which the site is designated.

Table 2-1 – Identification of European Sites within Study Area due to Impact Pathways

Potential Impacts	European Site within Zol & Distance (km) from Draft Plan	Reasoning for Inclusion or Exclusion of European Site
Direct habitat loss or damage	Peak District Moors (South Pennine Moors Phase 1) SPA (6.65km east) Midland Meres & Mosses - Phase 1 Ramsar (9.45km southwest)	No construction works will take place within the boundaries of any European site. No activities will result in any land-take, habitat loss or direct physical damage within European sites. Accordingly, European sites are not taken forward for further consideration in relation to this impact pathway. Qualifying mobile species of European sites may use areas in proximity to those identified in the Local Plan for activities such as foraging, commuting, or resting. Activities associated with the Local Plan have the potential to affect the suitability, availability or function of habitat that may comprise Functionally Linked Land (FLL), even where European site boundaries lie outside the relevant Zols for individual impact pathways. The loss or damage of habitats within habitat that may comprise FLL such as agricultural fields, grassland, woodland, hedgerows and other features that may support qualifying species.
Introduction of INNPS	Peak District Moors (South Pennine Moors Phase 1) SPA (6.65km east) Midland Meres & Mosses - Phase 1 Ramsar (9.45km southwest)	All European sites are located over 2.5km from the Local Plan. The spatial separation means that there is no potential for INNPS to be transferred directly to a European site. However, the developments associated with the Local Plan may include works within or adjacent to watercourses that are hydrologically connected to downstream watercourses, providing a potential pathway for the subsequent transport and spread of INNPS towards European sites, with the identified hydrological route extending for more than 50 km. INNPS would need to pass through a series of connected watercourses before potentially reaching a designated site. Where European sites are separated from the Local Plan by substantial hydrological distances and an intervening network of watercourses, the potential for INNPS arising from development associated with the Local Plan to reach and establish within those sites is considered highly remote.

Potential Impacts	European Site within Zol & Distance (km) from Draft Plan	Reasoning for Inclusion or Exclusion of European Site
	Mersey Estuary SPA (33.4km west and 55.95 hydrologically¹⁰) Mersey Estuary Ramsar (33.4km west and 55.95 hydrologically)	The existence of a hydrological connection is recognised. The potential for INNPS to disperse through connected watercourses is also acknowledged. However, the presence of a hydrological connection does not, in itself, establish that development provided for by the Local Plan would result in an effect on the European site(s). Consideration has therefore been given to the nature of the Local Plan, the existing management and regulatory framework applying to the connected water environment, and the extent to which development under the Local Plan could introduce an additional risk of INNPS reaching the SAC. As explained above, the relevant water-quality effects have been scoped out. While that assessment did not specifically consider the introduction or spread of INNPS, it confirms that the relevant water-quality pathway and associated water environment are already subject to assessment and regulatory control. The Local Plan also contains an established requirement for development proposals to include and implement measures for the prevention, management and, where feasible, eradication of invasive non-native species across all phases of development (Policy – ENV 1: Protection of the natural environment). This requirement forms part of the wider legislative and biodiversity policy framework applicable to development and was not introduced specifically as HRA mitigation for the European sites. The potential for INNPS to disperse over the identified hydrological distance has not been discounted solely on the basis of distance. Rather, consideration has been given to whether the Local Plan would introduce a sufficiently credible additional mechanism for INNPS to enter the connected watercourse network and subsequently reach the designated site, having regard to the existing management and regulatory framework and the controls that would apply to development.

¹⁰ Hydrological connection refers to the movement of water from the Draft Plan to the European site via surface water features such as ditches, drains, or other watercourses. These features create a connected pathway, allowing water, along with any associated pollutants or sediments, to travel between locations that are spatially separate. This connection is inferred as being defined by the maximum area of groundwater connectivity.

Potential Impacts	European Site within Zol & Distance (km) from Draft Plan	Reasoning for Inclusion or Exclusion of European Site
		The identified hydrological connection extends over a substantial distance and passes through at least two intervening watercourses before reaching the SAC. Although some allocations are located adjacent to watercourses within this network, no specific Plan-level mechanism has been identified that would materially increase the risk of INNPS being introduced into the connected water environment and subsequently reaching the qualifying features of the European sites. The existing INNPS requirements applicable to development provide an established framework for preventing, managing and, where feasible, eradicating INNPS. These requirements are considered as part of the wider framework within which development under the Local Plan would be delivered. Taking these factors together, and having regard to the substantial hydrological separation, the intervening watercourse network, the existing assessment and regulatory control of the relevant water environment, and the established requirements relating to INNPS, the potential for development under the Local Plan to introduce or materially increase the risk of INNPS reaching the European sites is considered sufficiently remote that the pathway is not taken forward as a separate impact pathway. This conclusion does not rely upon the assumption that INNPS cannot disperse over the identified hydrological distance; rather, it reflects the absence of an identified Plan-related mechanism that would materially increase the risk of INNPS reaching the designated site. As described for habitat loss or damage, qualifying mobile species of European sites may rely on habitats within FLL for activities such as foraging, commuting or resting. During any construction associated with allocations of the Local Plan, there is potential for the accidental introduction or spread of INNPS through vehicles, machinery, soil movement and imported materials, including where such materials or plant material may enter watercourses. Once introduced, INNPS could potentially be transported downstream and become established in suitable habitats, including habitats that may comprise FLL for qualifying species. The establishment and spread of INNPS could

Potential Impacts	European Site within Zol & Distance (km) from Draft Plan	Reasoning for Inclusion or Exclusion of European Site
		alter habitat structure and composition, reducing the suitability or function of such habitats for qualifying species.
Changes to noise and vibration	Peak District Moors (South Pennine Moors Phase 1) SPA (6.65km east) Midland Meres & Mosses - Phase 1 Ramsar (9.45km southwest)	On the basis of the Zol defined in Section 2.2 (paragraph 2.2.12), no European site is located within the 500m of the Local Plan. Accordingly, direct potential impacts on the European sites are not taken forward for further consideration in relation to this impact pathway. As described under the 'direct habitat loss or damage' pathway, qualifying features of European sites may use the habitats in the vicinity of the Local Plan. Hence, effects on areas of potential FLL may affect qualifying features of the European sites.
Changes to visual and/or lighting baseline	Peak District Moors (South Pennine Moors Phase 1) SPA (6.65km east) Midland Meres & Mosses - Phase 1 Ramsar (9.45km southwest)	On the basis of the Zol defined in Section 2.2 (paragraph 2.2.13), no European site is located within the 200m of the Local Plan. Accordingly, European sites are not taken forward for further consideration in relation to this impact pathway. As described under the 'direct habitat loss or damage' pathway, qualifying features of European sites may use the habitats in the vicinity of the Local Plan. Hence, effects on areas of potential FLL may affect qualifying features of the European sites.
Hydrological changes (Changes in water quality, flow, regime, temperature, etc.)	Mersey Estuary SPA (33.4km west and 55.95 hydrologically) Mersey Estuary Ramsar (33.4km west and 55.95 hydrologically)	A watercourse near the Local Plan is connected to the River Dean, which flows into the River Bollin, then into the Manchester Ship Canal and Bridgewater Canal, and ultimately to the Mersey Estuary SPA and Ramsar sites. There are also hydrological connections from River Goyt and River Mersey, which likewise connect to Mersey Estuary SPA and Ramsar. This means that changes in water quality associated with construction and operation, including accidental spills, washout or contaminated runoff entering connected drainage systems, nutrient enrichment, organic enrichment, etc., could be carried through to the European site. Stockport lies within the Upper Mersey catchment area, with downstream connectivity to the Mersey Estuary SPA and Ramsar site, located approximately 33km west in a straight line and over 50km downstream by hydrological distance. Given the distance,

Potential Impacts	European Site within Zol & Distance (km) from Draft Plan	Reasoning for Inclusion or Exclusion of European Site
		the only plausible impact pathway is cumulative effects on water quality; however, these European sites have not been identified by Natural England as being in unfavourable condition due to excessive nutrients in NE advice to LPAs¹¹, and all other potential water quality effects were screened out as can be managed through the development of appropriate policies (such as ENV 7: Environmental protection). United Utilities provides water for SMBC. Its Water Resource Management Plan 2024 HRA (United Utilities Water, 2024) states that for Rochdale Canal SAC and Manchester Mosses SAC, there are no pathways for operation or construction-related effects due to a lack of hydrological connectivity from allocated sites and related policy areas to European sites. For Midland Meres and Mosses Phase 1 Ramsar and Rostherne Mere Ramsar, there are no pathways for operation or construction-related effects as the site is not impacted by the catchment abstraction and pipeline route. Equally, the South Pennine Moors SAC and Peak District Moors (South Pennine Moors Phase 1) SPA are up-catchment, and water resourcing has no pathways to the Stockport Borough. Importantly, much of the water supply to water-resource sensitive European sites is managed through specific consenting regimes that are independent of the Local Plan. Hence, this impact pathway has not been considered further.
Recreational pressure	Rochdale Canal SAC (5.6km north) South Pennine Moors SAC (6.65km east) Peak District Moors (South Pennine Moors Phase 1) SPA (6.65km east)	Recreational pressure is identified as a potential impact pathway where development associated with the Local Plan could increase recreational use of European sites or functionally linked land supporting qualifying features. Potential effects may include increased visitor pressure, trampling, disturbance and associated changes in recreational patterns. These European sites are within the relevant study area along with a plausible recreational relationship to the Local Plan and are therefore taken forward for consideration.

¹¹ Letter from NE to LPA Chief Executives and Heads of Planning, 16 March 2022; Re. Advice for development proposals with the potential to affect water quality resulting in adverse nutrient impacts on habitats sites

Potential Impacts	European Site within Zol & Distance (km) from Draft Plan	Reasoning for Inclusion or Exclusion of European Site
	Rostherne Mere Ramsar (8.8km west) Midland Meres & Mosses - Phase 1 Ramsar (9.45km southwest)	
Changes in air quality	Rochdale Canal SAC (5.7km north) South Pennine Moors SAC (6.65km east) Peak District Moors (South Pennine Moors Phase 1) SPA (6.65km east) Rostherne Mere Ramsar (8.8km west) Midland Meres & Mosses - Phase 1 Ramsar (9.45km southwest) Manchester Mosses SAC (15.4km northwest ¹²)	On the basis of the Zol defined in Section 2.2 (paragraph 2.2.4 and 2.2.5), no European site is located within the 50m dust dispersion Zol associated with construction activities. Accordingly, European sites are not taken forward for further consideration in relation to this impact pathway. However, as described under the ‘direct habitat loss or damage’ pathway, qualifying features of European sites may use the habitats in the vicinity of the Local Plan. Hence, effects on areas of potential FLL may affect qualifying features of the European sites. With respect to potential air quality effects arising from traffic on the affected roads, European sites sensitive to nitrogen deposition are located within 200m of the affected roads and these sites are therefore retained for further consideration under this pathway.

¹² Included following consultation with Natural England in relation to potential air quality impact pathways. While The Manchester Mosses SAC fall outside of the Zol, this has been included in the assessment in accordance with Policy JP-C8 (GMCA, 2024). With regard to the assessment of in-combination impacts, the consideration of Places for Everyone plan, and the assessment of potential impacts along the M62 past Holcroft Moss SSSI has been taken in consideration for this HRA.

2.4.2. **Table 2-2** describes the relevant European sites, including their qualifying features, conservation objectives, and key threats and pressures. **Appendix A Figure A-1**, show the locations of the relevant sites in relation to the Local Plan.

Table 2-2 – Details of Relevant European sites

Site name and size (ha)	Reasons for designation summarised	Site conservation objectives	Threat or Pressure
South Pennine Moors SAC	The South Pennine Moors SAC is designated for the following Annex I habitats: ■ European dry heaths ■ Blanket Bogs ■ Old sessile oak woods with Ilex and Blechnum in the British Isles In addition, the following Annex I habitats are present as qualifying features, but not as primary reasons for the selection of the SAC: ■ Northern Atlantic wet heaths with <i>Erica tetralix</i> ■ Transition mires and quaking bogs	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring: ■ The extent and distribution of the qualifying natural habitats; ■ The structure and function (including typical species) of the qualifying natural habitats; and, ■ The supporting processes on which the qualifying natural habitats rely	Site Improvement Plan for South Pennine Moors SAC highlights the following vulnerabilities: ■ Hydrological changes ■ Managed rotational burning ■ Low breeding success and changes in species distributions (raptor bird species) ■ Inappropriate management practices ■ Disease (to interest plant species) ■ Air Pollution: impact of atmospheric nitrogen deposition ■ Public access/disturbance ■ Wildfire/arson ■ Vehicles ■ Overgrazing ■ Undergrazing ■ Forestry and woodland management ■ Invasive species ■ Planning permission
Peak District Moors (South Pennine Moors Phase 1) SPA	The site qualifies under article 4.1 of the Directive	Ensure that the integrity of the site is maintained or restored as	Site Improvement Plan for South Pennine Moors SAC

	(79/409/EEC) as it is used regularly by 1% or more of the Great Britain population of a species listed in Annex I, in any season: ■ A098 Merlin <i>Falco columbarius</i> (Breeding) ■ A140 European golden plover <i>Pluvialis apricaria</i> (Breeding) ■ A222 Short-eared owl <i>Asio flammeus</i> (Breeding)	appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring: ■ The extent and distribution of the habitats of the qualifying features; ■ The structure and function of the habitats of the qualifying features; ■ The supporting processes on which the habitats of the qualifying features rely; ■ The population of each of the qualifying features; and ■ The distribution of the qualifying features within the site.	highlights the following vulnerabilities: ■ Hydrological changes ■ Managed rotational burning ■ Low breeding success and changes in species distributions (raptor bird species) ■ Inappropriate management practices ■ Disease (to interest plant species) ■ Air Pollution: impact of atmospheric nitrogen deposition ■ Public access/disturbance ■ Wildfire/arson ■ Vehicles ■ Overgrazing ■ Undergrazing ■ Forestry and woodland management ■ Invasive species Planning permission
Rochdale Canal SAC	The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following species listed in Annex II: ■ Floating water-plantain <i>Luronium natans</i>	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;	Site Improvement Plan for South Pennine Moors SAC highlights the following vulnerabilities: Physical modification ■ Air Pollution: impact of atmospheric nitrogen deposition

		■ The extent and distribution of the habitats of qualifying species ■ The structure and function of the habitats of qualifying species ■ The supporting processes on which the habitats of qualifying species rely ■ The populations of the qualifying species, and, ■ The distribution of the qualifying species within the site.	
Rostherne Mere Ramsar	Rostherne Mere Ramsar is designated for open water transition fen ('mere'). The open water serves as a habitat for wintering birds, including populations of international significance. Three bird species present at nationally significant levels during winter are the great cormorant <i>Phalacrocorax carbo</i>, great bittern <i>Botaurus stellaris</i>, and water rail <i>Rallus aquaticus</i>, which account for the designation.		Information taken from the most recent Evidence Pack (NE, June 2024a) states nutrient pressures for which the site is unfavourable related to nitrogen and phosphorus. Higher nutrient concentrations and eutrophication can affect the dissolved oxygen levels in the water body, which in turn would influence the organisms present within the mere and thus have implications for the wider food web, and the species present.

Midland Meres & Mosses - Phase 1 Ramsar	Midland Meres & Mosses - Phase 1 Ramsar is designated for the following features: Ramsar criterion 1: The site comprises a diverse range of habitats from open water to raised bog. Ramsar criterion 2: Supports a number of rare species of plants associated with wetlands including five nationally scarce species together with an assemblage of rare wetland invertebrates (three endangered insects and five other British Red Data Book species of invertebrates).		A range of potentially threatening activities has been documented at the site, including agriculture, grazing, fishing, hunting, and recreation. The site has also been used for research and conservation. The site has experienced partial eutrophication due to human-induced factors, though some mires are naturally eutrophic. Additional nutrients have resulted from the intensification of agricultural activity, fertiliser runoff, and domestic and agricultural effluent.
Manchester Mosses SAC	The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I: ■ Degraded raised bogs still capable of natural regeneration	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; ■ The extent and distribution of qualifying natural habitats ■ The structure and function (including typical species) of qualifying natural habitats, and,	Site Improvement Plan for South Pennine Moors SAC highlights the following vulnerabilities: ■ Hydrological changes ■ Air Pollution: impact of atmospheric nitrogen deposition

		▪ The supporting processes on which qualifying natural habitats rely	
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2.4.3. **Table 2-3** identifies the European sites relevant to each impact pathway taken forward for assessment. For the purposes of this assessment, potential impact pathways relating to FLL have been consolidated under the overarching pathway of FLL fragmentation (or 'Effects on FLL'). This encompasses potential effects associated with direct habitat loss, the introduction or spread of INNPS, changes in air quality, changes in noise, changes to the visual and/or lighting baseline, hydrological changes and recreational pressure, where these have the potential to affect the function, suitability or connectivity of FLL supporting qualifying features.

Table 2-3 – European sites and potential impact pathways

Site name	Recreational Pressure	Changes in Air Quality	Effects on FLL
South Pennine Moors SAC	✓	✓	N/A (not designated for mobile fauna)
Peak District Moors (South Pennine Moors Phase 1) SPA	✓	✓	✓
Rochdale Canal SAC	✓	✓	N/A (not designated for mobile fauna)
Rostherne Mere Ramsar	✓	✓	N/A (not designated for mobile fauna)
Midland Meres & Mosses - Phase 1 Ramsar	✓	✓	✓
Manchester Mosses SAC	N/A (only considered for AQ)	✓	N/A (only considered for AQ)

3 Assessment of Likely Significant Effects – Screening

3.1 Overview

- 3.1.1. This section confirms those European Sites that are relevant to the assessment and sets out the updated findings in relation to screening for LSE. LSE (or the absence of them) are considered in relation to the identified impact pathways and their zones of influence.

3.2 Review of Proposed Policies

- 3.2.1. When considering the likely effects of a policy, it is recognised that some policy ‘types’ cannot usually result in impacts on any European sites. Different guidance documents suggest various classification and referencing systems to help identify those policies that can be ‘screened out’ on that basis; the general characteristics of these policy types are summarised in **Table 3-1**.

Table 3-1 – Policy ‘types’ that can usually be screened out

Broad Policy Type	Notes
General statements of policy / aspiration	The European Commission recognises* that plans or plan components that are general statements of policy or political aspirations cannot have significant effects; for example, general commitments to sustainable development. This may include policies that support development or other changes, but which are too general (e.g. locations, scale, quantum, etc., not specified below the geographical level of the plan) to allow any specific assessments of effects, provided that the type of development proposed is not such that significant effects would be unavoidable regardless of location, etc.
General design / guidance criteria or policies that cannot lead to or trigger development	A general ‘criteria-based’ policy expresses the tests or expectations of the plan-making body when it comes to considering proposals or relates to design or other qualitative criteria which do not themselves lead to development (e.g. controls on building design; requirements for affordable homes; etc); however, policies with criteria relating to specific proposals or allocations should not be screened out.
External plans / projects	Plans or projects that are proposed by other plans or permissions regimes and which are referred to in the plan being assessed for completeness (for example, Highways Agency road schemes; specific waste development proposals promoted by a Joint Minerals and Waste Plan; DCO applications being advanced separately from the plan at hand); however, these would be considered as part of the plan-level ‘in combination’ assessment.
Environmental protection policies	Policies designed to protect the natural or built environment will not usually have significant or adverse effects (although they may often

Broad Policy Type	Notes
	require modification if relied on to provide sufficient safeguards for other policies).
Policies which make provision for change, but which could have no conceivable effect	Policies or proposals that cannot affect a European site (due to there being no impact pathways and hence no effect; for example, proposals for a new cycle path several kilometres from the nearest European site; criteria for a development's appearance; etc.) or which cannot undermine the conservation objectives, either alone or in combination, if impact pathways exist

- 3.2.2. The review considers the policies collectively and individually, and so takes the non-specific crosscutting protective policies within the Local Plan into account although cross-cutting or overarching policies are not relied on where specific mitigation for specific effects is considered necessary for the policy (this is particularly relevant for policies that provide broad or non-specific support for development but which are screened out because they do not define or direct particular developments or activities; in these instances the Local Plan's protective policies will form a key part of the overall decision making process). The review also considers any internal tensions within the Local Plan that may be relevant to HRA.
- 3.2.3. In summary, the vast majority of the planning policies contained in the Local Plan are categorised as 'no effect' as they are not directly related to development. However, for the benefit of this assessment, they are listed as 'no LSE' policies. **Table 3-2** contains those policies which are screened in for assessment. All other policies are screened out due to a lack of an impact pathway. Some policies have been grouped due to their policy family, meaning impact pathways are the same.

Table 3-2 – Policies screened in for assessment

Policies	Screening rationale
COM 1: Healthy and active across all ages	The Policy states development must both increase access to existing and create new green spaces and green infrastructure. It has some specific elements that will moderate / provide some mitigation for visitor pressure, but it is recognised that the moderating effects will be small and so they have been discounted from the screening assessment. As the policy is not related to development and no specific linkages with European sites are identified, it is concluded as having no LSE.
COM 4: Protection of open space and recreation facilities	Policy relates to potential loss of open space or sport and recreation to development, but this will not lead to open space creation and thus is not linked to visitation to European sites.

Policies	Screening rationale
	As the policy is not related to development and no specific linkages with European sites are identified, it is concluded as having no LSE.
ENV 2: Enhancing nature	The Policy states development must incorporate green and blue infrastructure and improve the ecological network, which may moderate / provide some mitigation for visitor pressure, but it is recognised that the moderating effects will be small and so they have been discounted from the screening assessment. Developments will be required to satisfy this policy at the project level, and as no specific linkages with European sites are identified, it is concluded as having no LSE
ENV 3: Nature recovery	Where development is sited within the nature network, it must demonstrate how it will protect and enhance the integrity of the 'core areas' and enhance the connectivity of the 'opportunity areas'. This may moderate / provide some small contribution towards mitigation for visitor pressure. Developments will be required to satisfy this policy at the project level, and as no specific linkages with European sites are identified, it is concluded as having no LSE.
ENV 7: Environmental protection	Strictly, the policy is a 'no LSE' policy as it does not itself trigger development, although the policy includes 'mitigating' elements / criteria that would need to be met in relation to water discharges. As the policy is not related to development and no specific linkages with European sites are identified, it is concluded as having no LSE.
ENV 8: Clean air	As above, the policy is a 'no LSE' policy as it does not itself trigger development, although the policy includes 'mitigating' elements / criteria that would need to be met in relation to air quality, but it is recognised that the moderating effects will be small and so they have been discounted from the screening assessment. Developments will be required to satisfy this policy at the project level, and as no specific linkages with European sites are identified, it is concluded as having no LSE.
CR 3: Renewable and low-carbon energy development	The identification of areas as being suitable for photo-voltaic, hydropower and wind turbine developments may imply that this is based on a full range of strategic environmental considerations (e.g. effects on broad-front migration routes to SPAs and Ramsar sites); policy has a spatial component. Developments will be required to satisfy this policy at the project level, and as no specific linkages with European sites are identified, it is concluded as having no LSE.

Policies	Screening rationale
HOM1: Delivering new homes HOM2a: New residential communities HOM2b: Site-specific requirements HOM3: Protecting the future supply of housing HOM8: Provision and enhancement of outdoor recreational space in new residential development HOM14: Homes for agricultural workers in the Green Belt INF 10: Public transport INF 16: Safeguarding future transport infrastructure and routes INF 17: Metrolink	Policies identifying the quantum of development and locations for this, including green space requirements. The policies have the potential to significantly affect European sites through effect pathways associated with the quantum of development, etc., and aspects of them need to be examined through appropriate assessment. LSE cannot be ruled out.
BUS 1: Economy and employment principles BUS 2: Key employment locations BUS 3a: Employment areas BUS 3b: New employment development locations BUS4: Employment uses outside of designated employment areas	Allocate land for employment; the policies have the potential to significantly affect European sites through effect pathways associated with the quantum of development, etc., and aspects of them need to be examined through appropriate assessment. The policies have the potential to significantly affect European sites through effect pathways associated with the quantum of development, etc., and aspects of them need to be examined through appropriate assessment. LSE cannot be ruled out.

3.3 Review of Site Allocations

- 3.3.1. The allocation sites (housing or employment) proposed by SMBC have been reviewed to identify those which (if developed) could result in significant effects on an European site that are not obviously avoidable with the standard project-level measures that would be required to meet existing regulatory regimes. The assessment largely focuses on the identification of specific effects that might be associated with specific allocations (and which may therefore require the inclusion of allocation-specific mitigation within the Local Plan) rather than the broader 'quantum of development' effects. The risk of effects is strongly dependent on how a particular development is implemented at the project stage, and in most cases, potential effects can be avoided using best-practice and standard scheme-level avoidance measures, which do not necessarily need to be specified for each allocation.
- 3.3.2. Virtually all of the allocations will have no significant effects alone due to their small size, the habitats affected, the absence of impact pathways, and their distance from the nearest European sites. There are minor residual uncertainties in relation to possible functional land associations for allocations east of Hazel Grove and around southern Woodford.

3.4 Screening of European Sites

- 3.4.1. European sites or qualifying features within a study area can be excluded from further assessment at an early stage in the assessment process ('screened out') if the Local Plan will self-evidently have either 'no effect' or 'no significant effect' on these sites (i.e. the qualifying features are not sensitive to the environmental changes associated with the Local Plan; or will not be exposed to those changes due to the absence of any reasonable impact pathways; or, if both exposed and sensitive, the effects of the environmental changes will clearly be inconsequential to the achievement of the conservation objectives).
- 3.4.2. The following sections provide a brief summary of the screening of the European sites and their qualifying features based on the baseline data summarised in Section 3 and the policies and proposals of the Local Plan. It should be noted that this aspect of the screening process is based on the precautionary approach, with sites, aspects or features only 'screened out' if they will self-evidently be unaffected by the Local Plan (i.e. it is aiming to identify those aspects that will clearly have 'no effect' or 'no significant effect' (alone or in combination) due to an absence of impact pathways). It does not attempt a detailed quantification if significant effects via particular pathways cannot be simply or self-evidently excluded (this is completed at an 'appropriate assessment' stage, when mitigation is also accounted for).
- 3.4.3. When screening it is appropriate to assume that all relevant lower-tier consents and permissions (etc.) will be correctly assessed and controlled, and that any activities directly or indirectly supported by the Local Plan will adhere to the relevant legislative and regulatory requirements and all normal best-practice (e.g. it would be inappropriate to assume that normal controls on, for example, the installation of a new discharge to a watercourse would not be correctly followed). The screening also recognises that there are some aspects over which the Local Plan will have no control (e.g. agricultural practices).

Recreational Pressure

- 3.4.4. Many European sites will be vulnerable to some degree of impact as a result of recreational pressure, although the effects of recreational pressure are complex and very much dependent on the specific conditions and qualifying features at each site. For example, some bird species are more sensitive to disturbance associated with walkers or dogs than others; some habitats will be more sensitive to trampling or mechanical disturbance than others; some sites will be more accessible than others.
- 3.4.5. The most typical mechanisms for recreational effects are through direct damage to habitats or disturbance of certain species. Damage will most often be accidental or incidental, but many sites are particularly sensitive to soil or habitat erosion caused by recreational activities and require careful management to minimise any effects (for example, through provision and maintenance of 'hard paths' (boardwalks, stone slabs, etc.) and signage to minimise soil erosion along path margins).
- 3.4.6. Disturbance of species due to recreational activities can also be a significant problem at some sites, although the relationship is highly variable and depends on a range of factors, including the species, the time of year and the scale, type and predictability of disturbance. Most studies have focused on the effects on birds, either when breeding or foraging. For example, a long-term monitoring project by Natural England on the Thanet Coast has found that turnstones (a shoreline feeding waterbird) are particularly vulnerable to disturbance from dogs, which interrupts their feeding behaviour and can prevent them from gaining sufficient body fat for overwintering or migration. Finney et al. (2005), meanwhile, noted that re-surfacing the Pennine Way significantly reduced the impact of recreational disturbance on the distribution of breeding Golden plover, by encouraging walkers to remain on the footpath.
- 3.4.7. In contrast, some species are largely unaffected by human disturbance (or even benefit from it), which can result in local or regional changes in the composition of the fauna. The scale, type and predictability of disturbance are also important; species can become habituated to some disturbance (e.g. noise), particularly if it is regular or continuous. Unpredictable disturbance is most problematic.
- 3.4.8. Most recreational activities with the potential to affect European sites are 'casual' and pursued opportunistically (e.g. walking, walking dogs, riding) rather than structured (e.g. organised group activities or trips to specific discrete attractions), which means that it can be difficult to quantify or predict either the uptake or the impacts of these activities on European sites and (ultimately) harder to control or manage effects. It also means that it is difficult to explore in detail all of the potential aspects of visitor pressure at the strategy level. However, it is possible for plans and strategies to influence recreational use of European sites through the planning process, for example, by increasing the amount of green space required within or near developments if potentially vulnerable European sites are located nearby.

Table 3-3 - Summary of European site screening in relation to visitor pressure

Site	Notes	Screen in (Yes / No)
South Pennine Moors SAC & Peak District Moors (South Pennine Moors Phase 1) SPA	The SAC and SPA are approximately 2.75km outside of the SMBC eastern boundary and 6.7km from the nearest allocated site. Recreational pressure is included as a threat to achieving future positive conservation objectives (within the SIP). Recreational pressure has been considered as a potential pathway for effects on the South Pennine Moors SAC and Peak District Moors (South Pennine Moors Phase 1) SPA. Although the Local Plan is outside the boundary of the Places for Everyone (PfE) (Greater Manchester Combined Authority, 2024) plan area, it is immediately adjacent to the PfE boundary and shares a substantial length of boundary with it. The potential for recreational pressure arising from the Local Plan has therefore been considered in the context of the evidence and advice available for the South Pennine Moors SAC and Peak District Moors (South Pennine Moors Phase 1) SPA. Natural England's consultation response (NE, 2025) to the 2025 HRA agreed with the approach taken to recreational disturbance and screening for the Peak District Moors (South Pennine Moors Phase 1) SPA and directed the SMBC to the South Pennine Moors Supplementary Planning Document (SPD) (Greater Manchester Combined Authority, 2025). The SPD includes, as Appendix 2 to the SPD, Natural England's statement in relation to Habitats Regulations Assessment of the Places for Everyone Joint Development Plan policy JP-G5. The statement sets out Natural England's advice regarding the evidence required for Natural England to support a new strategic solution for recreational disturbance associated with the South Pennine Moors SAC and Peak District Moors (South Pennine Moors Phase 1) SPA. Natural England's advice is that robust ecological evidence of an impact on the conservation status of South Pennine Moors SAC and Peak District Moors (South Pennine Moors Phase 1) SPA due to recreational pressure, or bespoke evidence demonstrating such an impact, is required to support a new strategic solution. As recognised by Natural England in Appendix 2 to the SPD, the 2024 Recreation use of the South Pennine Moors and implications for strategic housing growth report prepared by Footprint Ecology provides evidence of the distribution of recreational visits to the South Pennine Moors	No

Site	Notes	Screen in (Yes / No)
	but does not provide evidence of impacts on the qualifying features of the relevant SPAs or the habitats for which the SAC is designated. Natural England therefore concluded that, in the absence of ecological evidence demonstrating an impact on the integrity of the designated sites, the credible risk arising from recreational pressure was not currently present and that development within the PfE boundary did not require mitigation towards the South Pennine Moors Phase 2 SPA, Peak District Moors (South Pennine Moors Phase 1) SPA or South Pennine Moors SAC under the specific requirements of the Habitats Regulations. While the Local Plan is outside the PfE boundary, the evidence and Natural England's position set out in the SPD are relevant to the consideration of recreational pressure given the Local Plan's immediate proximity to the PfE area. There is no ecological evidence currently available demonstrating that recreational pressure arising from development in this area is adversely affecting the qualifying features or integrity of the South Pennine Moors designated sites. On this basis and having regard to the evidence presented in the SPD, including Appendix 2, and Natural England's advice, recreational pressure is scoped out of further HRA assessment. This conclusion is based on the absence of evidence demonstrating an ecological impact on the qualifying features of the designated sites, rather than solely on the Local Plan's location outside the PfE boundary.	
Rochdale Canal SAC	The SAC is approximately 5.6km outside of the SMBC northern boundary and the nearest allocated site. Recreational pressure is not listed as a pressure or threat to achieving future positive conservation objectives (within the SIP).	No
Rostherne Mere Ramsar	The Ramsar is approximately 8.8km outside of the SMBC southwest boundary. Recreational pressure is not listed as a pressure or threat to achieving future positive conservation objectives (within the Evidence Plan), and there is no public access to the vast majority of the site; therefore, the SMBC plan will not have significant effects on this site due to changes in recreational pressure, alone or in combination.	No

Site	Notes	Screen in (Yes / No)
Midland Meres & Mosses - Phase 1 Ramsar	The Ramsar is approximately 9.4km outside of the SMBC southwest boundary and the nearest allocated site. Recreational pressure is listed as a pressure or threat to achieving future positive conservation objectives (within the Evidence Plan). However, the 16 mere sites, comprising over 60 open waters, are geographically spread out and some have little or no public access. The Ramsar Information Sheet (UK11043) states “ <i>no major tourism or recreational use apart from some angling and boating and motor sports (water-skiing) in one or two cases</i> ”, therefore, the SMBC plan will not have significant effects on this site due to changes in recreational pressure, alone or in combination.	No

Additional Measure

- 3.4.9. The assessment has been undertaken on a precautionary basis without reliance on the policies mentioned below.
- 3.4.10. The policies in the Local Plan will provide suitable alternative natural green space (known as SANGS), or recreation routes which will attract recreational visits, from either new or existing housing, that may otherwise go to the heaths, so resulting in no net increase in visitor numbers and thus no increase in disturbance to the birds.

Table 3-4 – Policies related to recreational pressure

Policy	Approach to recreation facilities
COM 4: Protection of open space and recreation facilities	The policy seeks ecological improvements including green infrastructure.
COM 5: Local Green Space	The policy aims to enhance Local Green Space and encourage greater access to the green space.
ENV 1: Protection of the natural environment	The policy seeks to undertake a holistic approach to the protection, enhancement and management of Stockport's natural environment and green and blue infrastructure¹³, in order to protect and enhance the ecosystem services and multifunctional benefits provided, including recreational opportunities, among other benefits. The policy also aims to protect and enhance designated Sites for nature conservation and geodiversity.
ENV 5: Landscape	The policy seeks that development must aim create a landscape which is capable of absorbing the pressures associated with urban recreation and climate change.
HOM 1: Delivering new homes	The policy says that new residential development will need to meet the requirements of creating sustainable communities, including access to public open spaces which provide the opportunity for recreation and social activity.
HOM 8: Provision and enhancement of outdoor recreational space in new residential development	The policy requires that developers make provision for meeting the outdoor recreational needs arising from new residential development.
HOM 2.22 and 2.36	These policies encourage the development of recreation routes like Fred Perry Way strategic recreation route and the existing recreational open space accessed from Dawson Road, in a way that it provides an enhanced experience for users.

¹³ Green infrastructure includes wide variety of green and/or open features, including the countryside, parks, playing fields, public squares, hedgerows, grass verges, trees, private gardens, green roofs and green walls. Blue infrastructure includes waterbodies such as rivers, canals, ponds and nature-based sustainable drainage (SuDS).

INF 12: Public rights of way and strategic recreation routes	The policy seeks to safeguard and enhance the existing network of strategic recreation routes throughout Stockport and encourage new recreation routes where there is potential throughout the borough.
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Effects on FLL

- 3.4.11. The provisions of the Habitats Regulations ensure that ‘direct’ (encroachment) effects on European sites as a result of land use change (i.e. the partial or complete destruction of an European site) are extremely unlikely under normal circumstances, and this will not occur as a result of the Local Plan. However, many European qualifying features (particularly more mobile animal species) may use or be reliant on non-designated habitats outside of an European site during their life cycle. Developments some distance from an European site can therefore have an effect on the site if its population of qualifying features is reliant on the habitats being affected by a development, and sufficient numbers are exposed to the environmental changes. As with other aspects, in this instance, recreation can therefore also affect European site integrity indirectly through effects on functional habitats outside of the designated site boundary.
- 3.4.12. With regard to the European sites within the study area, impact pathways from development to functionally linked habitats are significantly limited due to the separation distances to the European sites, all of which are outside of the SMBC boundary. The locations of allocated sites are also mostly located away from potential functionally linked habitat features, with a general lack of open water and large expanses of agricultural landscape favoured by wintering birds.
- 3.4.13. It is likely that waterbirds associated with Rostherne Mere and Midland Meres & Mosses Ramsars periodically use other wetland sites in the region, but these lie to the east of SMBC, and there is no data to suggest a potentially significant functional linkage or dependency.
- 3.4.14. However, it is recognised that some areas of cropped lowland farmland may be important for certain wintering waterbirds typically associated with coastal and wetland SPAs (e.g. Mason & MacDonald 1999; Gillings 2003), and that this behaviour is under-recorded by the standard Wetland Bird Survey (WeBS) monitoring technique.
- 3.4.15. The 2016 SPA Review (JNCC, 2016) identifies a broad group of species that are known to be associated with or reliant on cropped habitats, which are under-represented in the SPA network (although the SPA Review suggests that this should be addressed outside the SPA Review process through “wider countryside measures to preserve and promote permanent pasture as feeding and roosting habitat for the species”). Of the species identified in the European sites citations, only merlin, golden plover and short-eared owl have potential associations with cropped habitats. All three species are identified as designation features of Peak District Moors (South Pennine Moors Phase 1) SPA.
- 3.4.16. Merlin and short-eared owl utilise cropped habitats as hunting grounds. Whereas golden plover will use arable fields for foraging on grass seeds, berries and invertebrates. All three species are more closely associated with grassland and moorland than with intensively managed agriculture and have a preference for upland heath over arable land for nesting (JNCC, 2016). Feeding fidelity for short-eared owl is very low; moderate for merlin and high for golden plover, with the latter more greatly utilising arable fields for foraging.

- 3.4.17. With regard to flyways for birds using the European sites, specific routes or corridors have not been identified. The RSPB provided a high-level map and guidance in 2009 that assigned one of three sensitivity ratings (high, medium or unknown) to each 1km square in England; for the European sites assessed here, the landscape within ~4 – 5km of the SPA and Ramsar sites was categorised as having an 'unknown' sensitivity to wind farm development. Generally, further evidence is required to provide a more complete picture of potential impacts to birds from wind turbines, but the geographical layout of SMBC means it is generally unsuitable for large-scale wind farms.
- 3.4.18. **Table 3-5** lists European site screened in relation to FLL.

Table 3-5 - Summary of European site screened in relation to FLL

Site	Notes	Screen in (Yes / No)
Peak District Moors (South Pennine Moors Phase 1) SPA	For golden plover associated with Peak District Moors (South Pennine Moors Phase 1) SPA, the assessment follows the approach adopted in the PfE HRA (GMEU, 2021), with the Draft Plan located at an equivalent or greater distance from the designated site than the development assessed through PfE. Since the PfE assessment, the South Pennine Moors SPD has been adopted. The SPD provides a precautionary framework for considering potential effects on the South Pennine Moors designated sites, including the identification of a 2.5km zone within which site-specific surveys may be required. In this context, consideration of potential functional land within a 5km radius of the SPA is considered sufficient to provide a precautionary assessment envelope, extending beyond the distance at which site-specific survey requirements would ordinarily arise under the current SPD framework. The use of a 5km assessment envelope is therefore considered a reasonable and proportionate application of the precautionary principle. The closest allocated site (Compstall Mills – Policy HOM 2.12) associated with the Draft Plan is located more than 5km from the SPA and therefore falls outside this precautionary assessment envelope. On this basis, there is no indication that land associated with the Draft Plan provides FLL supporting the golden plover interest feature of the SPA. Considering the distance of the Local Plan from the SPA, the approach adopted in the PfE HRA and the subsequent SPD, it is considered that the Local Plan would not result in the loss or disturbance of functionally linked land that supports the golden plover interest feature. The Local Plan is therefore not considered likely to adversely affect the integrity of the SPA in relation to golden plover, either alone or in combination with other plans and projects. This conclusion is considered precautionary, as the assessment has assessed potential functional land within 5km of the SPA, even though the closest works are	No

Site	Notes	Screen in (Yes / No)
	located beyond this distance and has taken account of incidental records rather than relying solely on the absence of records. Accordingly, no LSE is predicted for golden plover in relation to FLL, either alone or in combination.	
Midland Meres & Mosses - Phase 1 Ramsar	The Ramsar is designated, in part, for a wetland invertebrate assemblage. While these species are considered mobile fauna, the Ramsar site is approximately 9.4km outside of the SMBC southwest boundary and the nearest allocated site. Allocated sites located nearest to the Ramsar are adjacent to existing development and Manchester Airport. Given the distance from the Ramsar site, the ecological characteristics and dispersal/movement capabilities of the relevant invertebrate assemblage, and the absence of an ecological connection, the affected habitat is not considered to constitute FLL for the wetland invertebrate assemblage of the Ramsar site. The separation distance from the Ramsar and SMBC boundary means the SMBC plan will not have LSE on this site due to changes in functionally linked habitat alone or in combination.	No

Air Quality

- 3.4.19. As part of the screening assessment, consideration is given to the air quality sensitivities of identified international sites, and specifically the sensitivity of their qualifying features to:
- Changes in both nitrogen oxides (NO_x) and ammonia (NH₃) concentrations in relation to the relevant Critical Levels; and
 - Changes in nitrogen deposition (N Dep) in relation to the relevant Critical Levels and Critical Loads.
 - Changes in acid deposition in relation to the relevant Critical Levels and Critical Load
- 3.4.20. Critical Loads and Levels are metrics used for assessing the risk of air pollution impacts to sensitive vegetation and ecosystems. Detailed Air Quality assessment has been presented in **Appendix B**.

Critical Levels for NO_x and NH₃

- 3.4.21. Critical Levels are used to estimate the exposure of sensitive vegetation and ecosystems to some important airborne pollutants, below which significant harmful effects are not expected to occur. These levels have been adopted by the European Union and the United Nations Economic Commissions for Europe (UNECE) and are used as regulatory standards and are expressed in units of µg/m³ (micrograms per cubic metre).
- 3.4.22. Critical Levels are not habitat specific, as with Critical Loads, but have been set to cover broad vegetation types. For NO_x, the Critical Levels are 30µg/m³ for annual mean concentrations and 75µg/m³ for 24-hour mean concentrations, regardless of habitat type. For NH₃, there are two values relevant to annual mean concentrations, 1µg/m³, typically applied where lichens and bryophytes are present (and form a key part of the ecosystem integrity), which are particularly sensitive to changes in NH₃, and another 3µg/m³ (with an uncertainty range of 2 – 4µg/m³) for all remaining vegetation.

Critical Loads

- 3.4.23. In addition to the direct effect of pollutant concentrations in the air, vegetation can also be affected by the deposition of pollutants and particles onto both the ground and vegetation. Close to roads, nitrogen deposition can be of concern for sensitive ecological sites as it can result in a variety of adverse effects depending on the habitats present (e.g. interfering with photosynthesis, increasing acidification, altering species composition etc).
- 3.4.24. When considering the effects of nitrogen deposition from the air onto habitats and vegetation, the relevant assessment benchmarks are known as 'Critical Loads'. Critical Loads are defined as:
- "...a quantitative estimate of exposure to one or more pollutants below which significant harmful effects on specified sensitive elements of the environment do not occur according to present knowledge".*
- 3.4.25. In the UK, Critical Loads have been established for a wide range of habitats and vegetation types, reflecting the variation in ecosystem responses. Details of the Critical Loads relevant to a specific habitat or designated site (SACs and SPAs) are available from the APIS website. In relation to Critical Loads, N Dep is expressed in units of kilograms of nitrogen per hectare per year (Kg/N/ha/yr).

Acid Deposition

- 3.4.26. Acid deposition represents the mix of air pollutants that together lead to the acidification of soils and freshwaters. It mainly consists of pollutants emitted by the combustion of fossil fuels (e.g. power generation). It is expressed in kEq/ha-year.
- 3.4.27. A summary of the relevant Critical Levels and Critical Loads for the identified international sites is provided in **Table 3-6**.
- 3.4.28. **Table 3-7** provides a summary of the screening in relation to air quality impacts and known threats and pressures on these sites.

Table 3-6 - Critical levels and critical loads for nutrient nitrogen component at identified European sites

European site	Features	Minimum Critical Load / Critical Level				Current (2023)			
		N Deposition (kgN/ha/yr)	Ammonia (µg/m³)	NO _x (µg/m³)	Acid Deposition (kEq/ha-year)	N Deposition (kgN/ha/yr)	NH ₃ Concentration (µg/m³)	NO _x (µg/m³)	Acid Deposition (kEq/ha-year)
South Pennine Moors SAC	H7130 Blanket bogs	5	1	30	0.569	For moorland – Maximum: 21.529 Minimum: 15.723 Average: 19.047	Maximum: 1.808 Minimum: 0.719 Average: 0.96	Maximum: 13.136 Minimum: 4.76 Average: 6.362	For moorland – Maximum: 1.598 Minimum: 1.216 Average: 1.433
	H4030 European dry heaths	5	1		0.689				
	H4010 Northern Atlantic wet heaths with Erica tetralix	5	1		0.689				
	H7140 Transition mires and quaking bogs	5	1		0.569				
	H91A0 Old sessile oak woods with Ilex and	10	1 or 3		0.57	For forest – Maximum: 31.641			For forest – Maximum: 2.318

European site	Features	Minimum Critical Load / Critical Level				Current (2023)			
		N Deposition (kgN/ha/yr)	Ammonia (µg/m³)	NO _x (µg/m³)	Acid Deposition (kEq/ha-year)	N Deposition (kgN/ha/yr)	NH ₃ Concentration (µg/m³)	NO _x (µg/m³)	Acid Deposition (kEq/ha-year)
	Blechnum in the British Isles					Minimum: 24.055 Average: 27.149			Minimum: 1.845 Average: 2.036
Peak District Moors (South Pennine Moors Phase 1) SPA	A222 <i>Asio flammeus</i>	5	1	30	0.709	For moorland:	Maximum: 1.808	Maximum: 10.665	For moorland:
	A098 <i>Falco columbarius</i>	5			0.709	Maximum: 21.529 Minimum: 16.628	Minimum: 0.719 Average: 0.958	Minimum: 4.76 Average: 6.119	Maximum: 1.598 Minimum: 1.239
	A140 <i>Pluvialis apricaria</i> [North-western Europe]	5			0.72 (Bogs) 0.709 (Dwarf shrub heath) 0.388 (Montane)	Average: 19.501			Average: 1.453

European site	Features	Minimum Critical Load / Critical Level				Current (2023)			
		N Deposition (kgN/ha/yr)	Ammonia (µg/m³)	NO _x (µg/m³)	Acid Deposition (kEq/ha-year)	N Deposition (kgN/ha/yr)	NH ₃ Concentration (µg/m³)	NO _x (µg/m³)	Acid Deposition (kEq/ha-year)
Rochdale Canal SAC	S1831 <i>Luronium natans</i>	2 ¹⁴	3	30	-	Moorland (precautionary approach): Maximum: 18.047 Minimum: 16.197 Average: 17.106	Maximum: 1.453 Minimum: 1.018 Average: 1.278	Maximum: 28.816 Minimum: 11.655 Average: 18.905	Moorland (precautionary approach): Maximum: 1.437 Minimum: 1.357 Average: 1.402

¹⁴ This critical load only applies if the interest feature is associated with softwater oligotrophic or dystrophic lakes at the site. If the feature is not depending on these lake types, there is no comparable critical load available.

Table 3-7 – Discussion of Identified Pressure and Threats (relative to air quality)

Pressure/threat	Site	Notes	Discussion	Screen in (Yes / No)
Air pollution: impact of atmospheric nitrogen deposition	South Pennine Moors SAC & Peak District Moors (South Pennine Moors Phase 1) SPA	Site sensitive to air quality changes; A628, A537, A624 and B6105 within 200m	N Deposition currently exceeds the site-relevant Critical Loads. This is supported by the latest data from APIS, as summarised in Table 3-5. Background concentrations of NO_x and NH₃ fall below the respective critical levels, as summarised in Table 3-5. Traffic data have been used to inform modelling of the potential contribution from Plan-related traffic. The modelling indicates that the predicted increase in N deposition exceeds 1% of the relevant Critical Load and, on this basis, LSE cannot be excluded at Stage 1. The SAC and SPA are therefore taken forward to Stage 2 Appropriate Assessment for further consideration of potential air-quality effects.	Yes
	Rochdale Canal SAC	Site sensitive to air quality changes; M60, A62, A6104, A663, A664 and B6195 within 200m.	N Deposition currently exceeds the site-relevant Critical Loads. This is supported by the latest data from APIS, as summarised in Table 3-5. Background concentrations of NO_x and NH₃ fall below the respective critical levels, as summarised in Table 3-5. Traffic data have been used to inform modelling of the potential contribution from Plan-related traffic. The modelling indicates that the predicted increase in N deposition exceeds 1%	Yes

			of the relevant Critical Load and, on this basis, LSE cannot be excluded at Stage 1. The SAC is therefore taken forward to Stage 2 Appropriate Assessment for further consideration of potential air-quality effects.	
	Rostherne Mere Ramsar	Site sensitive to air quality changes; A556 within 200m	The site is currently in an unfavourable condition due to nutrient pressures from nitrogen and phosphorus. However, the traffic changes predicted on road links associated with the Ramsar site are considered highly likely to be artefacts of the strategic traffic model. These road links are located outside the validated Stockport traffic model area and, therefore, the predicted changes may not be representative of actual changes in traffic flow on the specific roads concerned. The predicted traffic changes are therefore not considered to represent a meaningful increase in traffic affecting the designated sites. On this basis, the Local Plan is not considered likely to result in a meaningful additional contribution to atmospheric nitrogen deposition at the site, and the potential for LSE from road-traffic air pollution can be excluded at Stage 1. The Ramsar site is therefore screened out of further assessment in relation to this impact pathway.	No
	Midland Meres & Mosses - Phase 1 Ramsar	Site sensitive to air quality changes; B5085 within 200m	The traffic changes predicted on road links associated with the Ramsar site are considered highly likely to be artefacts of the strategic traffic model. These road links are located outside the validated Stockport traffic model area and,	No

			therefore, the predicted changes may not be representative of actual changes in traffic flow on the specific roads concerned. The predicted traffic changes are therefore not considered to represent a meaningful increase in traffic affecting the designated sites. On this basis, the Local Plan is not considered likely to result in a meaningful additional contribution to atmospheric nitrogen deposition at the site, and the potential for LSE from road-traffic air pollution can be excluded at Stage 1. The Ramsar site is therefore screened out of further assessment in relation to this impact pathway. This conclusion is further supported by the absence of major roads in close proximity to the designated site, with the nearest road being the B-road (B5085), located approximately 160 m from the site.	
	Manchester Mosses SAC	Site sensitive to air quality changes; M62 within 200m.	Holcroft Moss SSSI, one of the three component SSSIs within Manchester Mosses SAC, is the only part of the SAC located within 200 m of the affected road (M62) and is therefore the only part of the SAC for which a potential road-traffic air-quality pathway has been identified. The predicted increase in traffic flows on the M62 past Holcroft Moss is below the relevant traffic-flow threshold of 100 vehicles per day or 20 HGVs per day established through the Holcroft Moss Planning Obligations SPD (GMCA., 2025b). The predicted increase in traffic is therefore below the level at which the SPD identifies the need for scheme-specific	No

			measures and contributions in relation to traffic-related impacts at Holcroft Moss. Given that Holcroft Moss represents the only part of the Manchester Mosses SAC within 200 m of an affected road, and that the predicted increase in traffic past Holcroft Moss is below the relevant SPD threshold, the potential for the Draft Plan to result in an LSE on the Manchester Mosses SAC through road-traffic air pollution can be excluded. The Manchester Mosses SAC is therefore screened out of further assessment for this impact pathway.	
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3.5 HRA Screening In-Combination

- 3.5.1. The potential for the Local Plan to result in effects on European sites in combination with other plans and projects has been considered as part of the screening. For the impact pathways screened out at Stage 1, no LSE have been identified either alone or in combination with other plans and projects, and these pathways have therefore not been taken forward for further assessment.
- 3.5.2. For air quality, however, the potential for LSE could not be excluded at Stage 1 and the relevant European sites and pathways have therefore been taken forward to Stage 2 Appropriate Assessment. A substantive conclusion regarding the potential for in-combination air-quality effects is therefore not made at Stage 1 and is considered as part of the Stage 2 assessment.
- 3.5.3. The potential for in-combination air-quality effects has been incorporated into the air-quality modelling undertaken to inform the HRA. Relevant committed and planned development and associated traffic arising from other plans and projects have been included within the modelling, with the plans and projects incorporated into the in-combination assessment identified in **Appendix C**. The results of this modelling, together with consideration of the relevant European sites and their qualifying features, inform the Appropriate Assessment and the conclusion regarding potential in-combination effects.

3.6 Screening Conclusion

- 3.6.1. All European sites and impact pathways have been screened out at Stage 1, except for the air-quality pathway in relation to Rochdale Canal SAC, South Pennine Moors SAC and Peak District Moors (South Pennine Moors Phase 1) SPA, which have been taken forward to Stage 2 (Appropriate Assessment).
- 3.6.2. For Rochdale Canal SAC, LSE could not be excluded because Local Plan-alone air-quality modelling identified a predicted increase in nitrogen deposition exceeding 1% of the relevant Critical Load. For South Pennine Moors SAC and Peak District Moors (South Pennine Moors Phase 1) SPA, LSE could not be excluded because the in-combination modelling identified a predicted increase exceeding 1% of the relevant Critical Load.
- 3.6.3. The 1% benchmark has been used as a screening trigger and does not, in itself, indicate an adverse ecological effect. As the air-quality pathway has been taken forward, the whole air-quality pathway is assessed at Stage 2, with the relevant parameters, including NO_x, NH₃, nitrogen deposition and acid deposition, considered together rather than through separate Stage 1 conclusions for each parameter.
- 3.6.4. The Stage 2 assessment therefore considers whether the predicted air-quality effects, alone and/or in combination with other plans and projects, could adversely affect the integrity of the relevant European sites.

4 Assessment of Adverse Effect on Integrity – Appropriate Assessment

4.1 Approach to Plan-Alone and In-Combination Assessment

- 4.1.1. Both Plan-alone and in-combination air-quality modelling has been undertaken to inform the Appropriate Assessment. The approach to presenting the assessment differs between the European sites depending on the modelling results.
- 4.1.2. For the Rochdale Canal SAC, the Local Plan-alone and in-combination modelling results are broadly similar, with only very small differences in the predicted magnitude and spatial distribution of the effects. At some locations the in-combination contribution is marginally greater than the Local Plan-alone contribution, while at others the Local Plan-alone contribution is marginally greater. These differences are not considered material to the assessment conclusions. The detailed assessment therefore presents a single set of modelling results for Rochdale Canal SAC, rather than duplicating the assessment for the Local Plan-alone and in-combination scenarios. The conclusions reached from this assessment are applicable to both scenarios.
- 4.1.3. For the South Pennine Moors SAC and Peak District Moors (South Pennine Moors Phase 1) SPA, the Local Plan-alone modelling did not identify any air-quality contribution exceeding 1% of the relevant screening benchmark. Potential exceedances were identified under the in-combination modelling. The Stage 2 assessment therefore considers the in-combination modelling results for these sites, as this represents the scenario in which further assessment is required. As the Local Plan-alone results do not exceed the relevant screening benchmark, a separate detailed ecological assessment of the Local Plan-alone scenario is not considered necessary.
- 4.1.4. In both cases, the in-combination modelling incorporates the relevant committed and planned development and associated traffic from other plans and projects identified in **Appendix C**. The modelling results have been considered alongside the relevant ecological information, site-specific evidence and conservation objectives in reaching the conclusions set out below.

4.2 Wider Plan Air-Quality Policies

- 4.2.1. The Plan also contains a number of wider policies that seek to improve air quality and reduce emissions associated with development and transport. These policies are not specific to the relevant European sites and were not introduced as measures to mitigate effects identified through this HRA. They nevertheless form part of the policy framework assessed as part of the Plan and are relevant to consideration of the Plan's overall approach to air quality and emissions. The relevant policies are summarised below.

Table 4-1 – Policies aiming to improve air quality

Policy	Approach to improve air quality
ENV 7: Environmental protection	The policy seeks to minimise adverse impacts to air and dust, pollution control and reduction
ENV 8: Clean Air	The policy seeks to maintain and improve air quality by ensuring that development avoids, minimises, and mitigates pollution impacts on

	human health, ecological receptors, and designated sites, while supporting the delivery of local and regional air quality objectives.
Policy CR1: Climate resilience, mitigation and adaptation	The policy seeks to reduce emissions associated with development by promoting sustainable transport, discouraging the use of fossil fuels for operational energy, supporting low and zero-carbon energy generation, and encouraging sustainable design measures such as natural ventilation and green infrastructure. The policy also aims to improve indoor air quality and reduce the urban heat island effect, thereby enhancing resilience to climate change and creating healthier environments for occupants.
CR 3: Renewable energy development	The policy is expected to have a positive effect on air quality by promoting renewable and low-carbon energy development, thereby reducing emissions from conventional fossil fuel energy sources. It also requires the assessment and mitigation of any adverse air quality impacts associated with energy infrastructure proposals.
CR 5: Retrofit and re-use of buildings	The policy seeks to improve environmental and human health outcomes by supporting energy efficiency improvements and the transition to low-carbon heating technologies, thereby reducing emissions associated with building energy use. The policy also explicitly discourages installing wood-burning stoves as part of retrofit projects due to their contribution to fine particulate matter (PM _{2.5}) air pollution.
INF 7: Integrated transport network	This policy aims to improve air quality by reducing transport-related emissions, encouraging sustainable and zero-emission travel, integrating green infrastructure within transport networks, and preventing pollution associated with transport development.
INF 8: Sustainable streets	This policy aims to improve air quality by reducing reliance on private motor vehicles, promoting walking, cycling and public transport, supporting the uptake of zero-emission vehicles, and incorporating green infrastructure within transport networks. It also seeks to ensure that transport-related development mitigates environmental impacts and prevents pollution during construction activities.

- 4.2.2. These policies have been considered as part of the overall assessment of the Plan. They provide additional context regarding the Local Plan's approach to reducing air pollution but are not relied upon as the sole basis for concluding that the Local Plan would not adversely affect the integrity of the relevant European sites. The conclusion is instead based principally on the predicted pollutant contributions, the spatial extent and characteristics of the affected areas, the qualifying habitats and supporting features, the site-specific evidence and the assessment described below.

4.3 Rochdale Canal SAC

- 4.3.1. The potential effects of atmospheric pollution associated with traffic generated by the Local Plan on the Rochdale Canal SAC have been considered in relation to the site's qualifying feature, floating water-plantain. The SAC supports a significant population of floating water-plantain within a botanically diverse aquatic plant community and comprises a predominantly mesotrophic, managed canal environment.

- 4.3.2. The potential effects of atmospheric nitrogen deposition on the SAC have previously been considered through the HRA undertaken for the PfE Plan (GMEU, 2022). The PfE HRA identified the potential for effects from nitrogen deposition and considered this pathway through Stage 2 Appropriate Assessment. The assessment included a review of the ecology and environmental tolerances of floating water-plantain, consideration of the site-specific characteristics of the Rochdale Canal SAC and its supporting habitat, and consultation with Natural England and other ecological specialists. The PfE HRA ultimately concluded that the predicted increase in nitrogen deposition associated with the PfE Plan would not adversely affect the integrity of the SAC (GMCA, 2025a).
- 4.3.3. The PfE HRA provides a relevant body of site-specific evidence concerning the relationship between atmospheric pollution, the supporting habitat and the qualifying feature of the SAC. However, the conclusions of the PfE HRA have not been adopted as a substitute for assessment of the Local Plan. This HRA has considered the predicted contribution from the Local Plan alongside current information for the SAC and its qualifying feature, the current APIS information, and the ecological evidence considered through the PfE HRA.
- 4.3.4. The traffic modelling undertaken for the Local Plan predicts a maximum contribution equivalent to approximately 2% of the relevant Critical Load for NH_3 , less than 1% of the relevant Critical Level for NO_x and approximately 13.5% of the relevant Critical Load for nitrogen deposition. These predicted contributions are lower than those considered through the PfE HRA, which predicted a contribution of approximately 6% for NH_3 , more than 6% for NO_x and approximately 32% for nitrogen deposition. The Local Plan therefore does not result in a greater modelled contribution to atmospheric pollution at the SAC than that previously considered through the PfE HRA; rather, the predicted contribution is lower for each of the assessed pollutants.
- 4.3.5. The predicted contribution to NO_x is less than 1% of the relevant Critical Level and is therefore below the screening benchmark applied in the assessment. The predicted contribution to NH_3 is approximately 2% of the relevant Critical Load. The principal pollutant requiring further consideration through Appropriate Assessment is therefore nitrogen deposition, for which the predicted contribution is approximately 13.5% of the relevant Critical Load.
- 4.3.6. The site is currently subject to nitrogen deposition above the relevant Critical Load. This existing pressure is recognised in the Site Improvement Plan for the SAC and has been taken into account in considering the current baseline condition of the site. The assessment does not therefore rely on the absence of existing atmospheric nitrogen pressure to reach its conclusion. Rather, consideration has been given to whether the additional contribution attributable to the Local Plan, in the context of the ecological characteristics of the qualifying feature and its supporting habitat, could adversely affect site integrity.
- 4.3.7. The current APIS information identifies a nitrogen Critical Load range of $2\text{-}10\text{kg N ha}^{-1}\text{ yr}^{-1}$ for the relevant habitat type at the Rochdale Canal SAC. This differs from the $3\text{-}10\text{kg N ha}^{-1}\text{ yr}^{-1}$ range referred to in the PfE HRA, and the current APIS values have therefore been used for the assessment of the Local Plan.
- 4.3.8. The relevance of this Critical Load to the qualifying feature has also been considered. The APIS Critical Load range is a generic value for the relevant habitat type and is not a species-specific threshold derived from studies of floating water-plantain within the Rochdale Canal or another comparable canal environment. The APIS information identifies the relevant Critical Load range in

relation to soft water oligotrophic or dystrophic lake habitats, whereas the qualifying feature at the Rochdale Canal SAC occurs within a predominantly mesotrophic, managed and flowing canal environment. The applicability of the generic Critical Load to the qualifying feature must therefore be considered in the context of the actual ecological characteristics of the SAC.

- 4.3.9. This distinction was also recognised through the PfE HRA, which considered the generic nature of the APIS Critical Load and the absence of studies directly demonstrating the response of floating water-plantain to increased atmospheric nitrogen deposition. The ecological evidence indicates that floating water-plantain occurs across a relatively broad range of freshwater habitats and water-chemistry conditions, including moderately nutrient-rich canal environments. The Rochdale Canal is a managed and flowing canal rather than a static oligotrophic or dystrophic lake. Consequently, the response of floating water-plantain to the additional atmospheric nitrogen deposition predicted for the Local Plan cannot be inferred solely from the magnitude of the predicted deposition relative to the generic APIS Critical Load.
- 4.3.10. The ecological evidence considered through the PfE HRA also identified a range of factors that influence the distribution and persistence of floating water-plantain, including competition and succession, shading and the management of the canal habitat. The available evidence does not establish a clear direct relationship between atmospheric nitrogen deposition and deterioration of floating water-plantain within the Rochdale Canal SAC. In particular, there is limited evidence demonstrating that an increase in atmospheric nitrogen deposition would result in a change in water chemistry or supporting habitat conditions sufficient to affect the distribution, abundance or continuity of the qualifying feature.
- 4.3.11. The PfE HRA recorded consultation with Natural England and other ecological specialists specifically in relation to the ecology of floating water-plantain and the potential effects of atmospheric pollution. In that consultation, Natural England noted the relatively broad tolerance of floating water-plantain to nutrient levels and considered that direct effects arising from atmospheric deposition were unlikely, given that much of the plant remains submerged. Natural England also identified uncertainty regarding the extent to which additional nitrogen reaching a water body would alter water chemistry and subsequently affect the qualifying feature. Other specialists consulted as part of the PfE assessment similarly considered the species to have a relatively broad tolerance of water-quality conditions and identified other ecological factors as potentially more directly relevant to its persistence at the SAC.
- 4.3.12. The consultation comments referred to above were provided in the context of the PfE HRA. They are therefore considered as part of the existing evidence base informing the understanding of the qualifying feature and are not presented as current site-specific advice provided by Natural England for the Local Plan.
- 4.3.13. The baseline against which the Local Plan is assessed has also changed since the PfE HRA. Background nitrogen deposition at the SAC has reduced from approximately 19.3kg N ha⁻¹ yr⁻¹ to approximately 16.4kg N ha⁻¹ yr⁻¹. This reduction is recognised in interpreting the current baseline and reflects the ongoing effectiveness of measures and regulatory initiatives implemented to improve air quality and reduce atmospheric nitrogen emissions, including work undertaken by Natural England and other relevant authorities to support the achievement of favourable environmental conditions at designated sites. However, it is not relied upon in isolation to determine the significance of the additional contribution from the Local Plan.

- 4.3.14. The Local Plan's predicted contribution to nitrogen deposition is approximately 13.5% of the relevant Critical Load, compared with approximately 32% predicted for PfE. The Local Plan therefore represents a lower additional nitrogen deposition contribution than that previously assessed through the PfE HRA. The PfE assessment considered the higher predicted contribution through Stage 2 Appropriate Assessment and, having regard to the ecological evidence and site-specific characteristics described above, concluded that the predicted increase would not adversely affect the integrity of the SAC.
- 4.3.15. The lower contribution predicted for the Local Plan does not, in itself, establish that there can be no effect. However, when considered alongside the ecological evidence available for the SAC, the predominantly mesotrophic and managed nature of the canal environment, the broad ecological tolerance of Floating water-plantain, the limitations associated with interpreting the generic APIS Critical Load as a species-specific threshold, and the evidence concerning the relationship between atmospheric nitrogen and the qualifying feature, there is no evidence to indicate that the Draft Plan would result in an effect on the qualifying feature or its supporting habitat that would undermine the conservation objectives of the SAC.
- 4.3.16. This assessment is also supported by subsequent HRA work considering the Rochdale Canal SAC, which has similarly considered the site-specific relevance of the generic APIS Critical Load in the context of the predominantly mesotrophic canal environment and the ecological characteristics of Floating water-plantain. Such subsequent assessment provides additional context for interpreting the relationship between atmospheric nitrogen deposition and the qualifying feature. It does not, however, replace the assessment undertaken for the Local Plan.
- 4.3.17. When considered together, the available evidence indicates that the predicted additional atmospheric nitrogen deposition associated with the Local Plan would not result in a change to the ecological condition, distribution or supporting habitat of floating water-plantain that would undermine the conservation objectives of the Rochdale Canal SAC. The Draft Plan's predicted contribution is lower than that previously considered through the PfE HRA, and no new evidence has been identified that would indicate that the lower contribution predicted for the Draft Plan would give rise to an effect on the qualifying feature that was not identified or considered through the PfE HRA.
- 4.3.18. On the basis of the Local Plan's predicted pollutant contributions, the current APIS information, the ecological characteristics of the qualifying feature and its supporting habitat, the available site-specific evidence, and the evidence and conclusions arising from the PfE HRA and subsequent assessments, it is concluded that the Local Plan would not adversely affect the integrity of the Rochdale Canal SAC, either alone or in combination with other plans and projects, through atmospheric nitrogen deposition. An adverse effect on site integrity can therefore be excluded.
- 4.3.19. Acid deposition has been considered as a potential atmospheric pollution pathway. However, no site-relevant acid-deposition Critical Load is available for the qualifying feature of Rochdale Canal SAC, floating water-plantain. APIS does not provide a Critical Load for acid deposition for the canal, reflecting its mesotrophic character and the absence of an appropriate site-specific threshold against which the Draft Plan-related contribution can be assessed. The PfE HRA similarly identified no appropriate acid-deposition Critical Load for the qualifying feature.
- 4.3.20. In the absence of a site-relevant Critical Load, the potential significance of acid deposition has instead been considered using the available site-specific ecological evidence and the characteristics

of the qualifying feature and its supporting habitat. Floating water-plantain occurs within the predominantly mesotrophic canal environment and is recorded across a relatively wide range of water chemistry. The available evidence therefore does not identify acidification as a limiting factor for the qualifying population at this site. The PfE HRA's review of the ecology of floating water-plantain similarly identified a broad tolerance of water chemistry and found no evidence establishing atmospheric acid deposition as a relevant mechanism affecting the qualifying feature.

- 4.3.21. This approach is consistent with subsequent site-specific assessment of the Rochdale Canal SAC, in which the absence of an appropriate APIS Critical Load was recognised and the mesotrophic character of the canal and ecological characteristics of floating water-plantain were considered in determining the potential for an adverse effect on site integrity. Natural England agreed that the qualifying feature was not sensitive to the predicted air-quality changes at the site and that there would be no adverse effect on the integrity of the SAC.
- 4.3.22. On this basis, while the absence of a site-relevant Critical Load does not in itself demonstrate that acid deposition cannot have an effect, the available site-specific evidence does not indicate a credible pathway by which the Local Plan-related contribution to acid deposition would result in deterioration of the qualifying feature or undermine achievement of the conservation objectives of Rochdale Canal SAC. Acid deposition is therefore not considered likely to result in an adverse effect on the integrity of the SAC.

4.4 South Pennine Moors SAC and Peak District Moors (South Pennine Moors Phase 1) SPA

- 4.4.1. The potential effects of atmospheric pollution associated with traffic generated by the Local Plan on the South Pennine Moors SAC and Peak District Moors (South Pennine Moors Phase 1) SPA have been considered in relation to the qualifying habitats and associated conservation interests of the designated sites. The South Pennine Moors SAC is an extensive upland site comprising predominantly bog and heath habitats, with European dry heaths, blanket bogs, Northern Atlantic wet heaths with *Erica tetralix*, transition mires and quaking bogs, and old sessile oak woods with *Ilex* and *Blechnum* forming the qualifying habitats of the South Pennine Moors SAC (Joint Nature Conservation Committee, 2015).
- 4.4.2. The conservation objectives for the South Pennine Moors SAC require the extent and distribution of the qualifying natural habitats, their structure and function, including typical species, and the supporting processes on which they rely to be maintained or restored, as appropriate (NE, 2019). The conservation objectives therefore provide the framework for considering whether the predicted changes in atmospheric pollution could affect the integrity of the South Pennine Moors SAC.
- 4.4.3. Atmospheric pollution, including nitrogen deposition, is recognised as a pressure affecting the South Pennine Moors sites. The Natural England Site Improvement Plan identifies nitrogen deposition among the issues requiring consideration in achieving the conservation objectives of the sites (NE, 2014).
- 4.4.4. The potential effects of traffic-related air pollution on the South Pennine Moors SAC were previously considered in detail through the HRA undertaken for the PfE Plan. The PfE HRA identified potential effects associated with airborne NO_x, airborne NH₃, nitrogen deposition and considered these pathways through Stage 2 Appropriate Assessment.

- 4.4.5. The PfE assessment considered the spatial extent of the modelled exceedances, the distribution of sensitive qualifying features and supporting habitats in proximity to affected roads, the conservation objectives of the South Pennine Moors SAC and the contribution of road traffic to the wider atmospheric pollution burden affecting the site. Consultation with Natural England was also undertaken as part of that assessment.
- 4.4.6. The PfE HRA therefore provides a relevant body of site-specific evidence concerning the relationship between traffic-related air pollution and the qualifying habitats of the South Pennine Moors. However, the conclusions of the PfE HRA have not been adopted as a substitute for assessment of the Draft Plan. This current assessment considers the Draft Plan's predicted pollutant contributions, the spatial extent of the predicted effects, the relevant SSSI units and qualifying habitats, and the available conservation information for the designated sites.
- 4.4.7. The assessment does not rely on an argument that the Draft Plan produces a lower contribution than PfE for all pollutants. Instead, the PfE HRA is used as a source of relevant site-specific evidence concerning the spatial extent of effects, the distribution of sensitive habitats within those areas and the relationship between the affected areas and the conservation objectives of the site.
- 4.4.8. The PfE HRA concluded that the predicted effects were at a *de minimis* level and would not adversely affect the integrity of the South Pennine Moors SAC or Peak District Moors (South Pennine Moors Phase 1) SPA.
- 4.4.9. This HRA has considered this evidence but has not simply adopted the PfE conclusion. Instead, the current modelling has been considered against the current identified receptor areas, and the actual spatial extent of the areas exceeding 1% has been quantified.
- 4.4.10. This provides an important distinction between this HRA and the PfE assessment. The PfE HRA provides relevant evidence concerning the ecological significance of highly localised road-related air-quality effects, while this HRA independently establishes the spatial extent of the Draft Plan's predicted effects and considers those effects against the current receptor information.

Local Plan Modelling

- 4.4.11. Traffic modelling of the Local Plan has been undertaken. The model predicts a maximum contribution equivalent to approximately 4.5% of the relevant Critical Load for NH₃, less than 1% of the relevant Critical Level for NO_x and approximately 4.5% of the relevant Critical Load for nitrogen deposition within the areas assessed.
- 4.4.12. The modelling covers a wider area of the designated sites, see **Appendix B**. However, the areas of particular relevance to the assessment are Unit 187 (Shaw Moor/Chunal Moor) and Unit 206 (Burnt Hill/Middle Moor) of Dark Peak SSSI, which contain dwarf shrub heath within the areas relevant to the modelled effects. These units have therefore been considered in greater detail in determining whether the predicted changes could affect the qualifying habitats of the designated sites.
- 4.4.13. The predicted contribution to NO_x is less than 1% of the relevant Critical Level and is therefore below the screening benchmark applied in the assessment. The potential for an adverse effect associated with NO_x can therefore be excluded on the basis of the current modelling.
- 4.4.14. The predicted contribution to NH₃ is approximately 4.5% of the relevant Critical Load, while the predicted contribution to nitrogen deposition is approximately 4.5% of the relevant Critical Load. These pathways have therefore been considered further in relation to the distribution, extent and characteristics of the sensitive qualifying habitats.

Spatial extent of the predicted air-quality effects

- 4.4.15. The spatial extent of the areas in which the Local Plan-related contribution exceeds 1% of at least one of the relevant air-quality screening benchmarks has been considered in determining the potential significance of the effects.
- 4.4.16. The area affected is very limited in relation to both the relevant SSSI units and the designated sites as a whole. Within SSSI Unit 187, approximately 2.66ha of the 243.1371ha unit falls within an area where the contribution exceeds 1% of at least one relevant air-quality benchmark. This represents approximately 1.09% of the unit. Within SSSI Unit 206, approximately 0.02ha of the 391.4699ha unit falls within such an area, representing approximately 0.005% of the unit.
- 4.4.17. Across the South Pennine Moors SAC as a whole, the corresponding area is approximately 2.68ha, representing approximately 0.004% of the 65,025.5ha site. The same 2.68ha represents approximately 0.006% of the 45,300.57ha Peak District Moors (South Pennine Moors Phase 1) SPA.

Table 4-2 – Extent and proportion of designated sites and SSSI units within areas exceeding 1% of air-quality benchmark(s)

Site	Area within >1% of at least one air-quality benchmark	Total area	Proportion
Dark Peak SSSI - Shaw Moor/Chunal Moor (Unit 187)	2.66 ha	243.1371 ha	1.09%
Dark Peak SSSI - Burnt Hill/Middle Moor (Unit 206)	0.02 ha	391.4699 ha	0.005%
South Pennine Moors SAC	2.68 ha	65,025.5 ha	0.004%
Peak District Moors (South Pennine Moors Phase 1) SPA	2.68 ha	45,300.57 ha	0.006%

- 4.4.18. These figures demonstrate that the areas in which a Plan-related contribution above the 1% screening benchmark is predicted comprise only a very small proportion of the designated sites and the relevant SSSI units. The potential effect is highly localised and associated with the existing road network rather than representing a widespread change in atmospheric conditions across the South Pennine Moors.
- 4.4.19. The 1% screening threshold is used to identify areas requiring further consideration and does not itself establish that an adverse effect on a European site will occur. The significance of the predicted contribution therefore needs to be considered in conjunction with the location and characteristics of the qualifying habitats within the affected area and the conservation objectives of the designated sites.

Distribution and characteristics of the affected habitat

- 4.4.20. The assessment has considered the nature and distribution of the habitats within the affected areas rather than assuming that the entire area of each SSSI unit is subject to the predicted Plan-related contribution.
- 4.4.21. The principal habitat of relevance within SSSI Units 187 and 206 is dwarf shrub heath, which is associated with the heathland interests for which the South Pennine Moors SAC is designated.
- 4.4.22. Although the affected area within Unit 187 represents a greater proportion of the unit than that within Unit 206, the areas affected remain limited in extent and are associated with the road network. Across the two units, the modelled exceedance therefore does not represent a widespread change to the extent or distribution of dwarf shrub heath.
- 4.4.23. The spatial extent of the predicted contribution has therefore been considered alongside the nature of the habitat present and the conservation objectives of the designated sites.

Nitrogen deposition

- 4.4.24. The predicted contribution to nitrogen deposition is approximately 4.5% of the relevant Critical Load. This is broadly comparable with the approximately 4.5% contribution considered through the PfE HRA. This HRA therefore considers the nitrogen deposition pathway in the context of the PfE's site-specific assessment, while taking account of the current modelling and the current identified receptor areas. The potential significance of the predicted contribution has been considered in relation to the actual location and extent of the affected habitats (**Table 4-2**).
- 4.4.25. The conservation objectives for the South Pennine Moors SAC require the extent and distribution of qualifying habitats, their structure and function and the supporting processes on which they rely to be maintained or restored. The assessment has therefore considered whether the limited area of additional nitrogen deposition attributable to the Local Plan could result in a change to the qualifying habitats or supporting processes at a scale capable of undermining these objectives (NE, 2019)
- 4.4.26. The available evidence does not indicate that the predicted Plan-related contribution would result in a widespread change to the qualifying habitats. Instead, the predicted contribution is concentrated within a very limited area immediately associated with the road network.
- 4.4.27. The extensive nature of the South Pennine Moors SAC is also relevant. SAC is approximately 65,024 ha, with bogs and heath accounting for the majority of the site's character (JNCC, 2015). The approximately 2.68ha within the current modelled exceedance area therefore represents an extremely small proportion of the overall designated site.
- 4.4.28. This spatial evidence does not, in isolation, demonstrate that there can be no effect. However, when considered alongside the distribution and characteristics of the relevant qualifying habitats, it indicates that the potential effect is highly localised and does not represent a change affecting the extent or distribution of the qualifying habitats across the designated site.

Airborne NH₃

- 4.4.29. The Local Plan predicts a maximum contribution of approximately 4.5% of the relevant Critical Load for NH₃. This is higher than the approximately 3.5% contribution predicted through the PfE HRA and is therefore considered explicitly in this HRA.

- 4.4.30. The higher current contribution does not, in itself, establish an adverse effect on site integrity. The spatial extent and location of the areas in which the contribution exceeds the 1% screening benchmark have also been considered.
- 4.4.31. The PfE HRA undertook detailed assessment of areas where the NH₃ contribution exceeded the screening threshold, including consideration of the distribution of sensitive features and supporting habitats. This assessment considered SSSI unit information, priority habitat information, aerial imagery, field observations and ecological advice. The PfE HRA found that the areas of potential NH₃ effect were concentrated close to the road network and that the sensitive habitats potentially affected were either absent or occurred only within limited areas immediately adjacent to the affected roads.
- 4.4.32. This HRA recognises that the NH₃ contribution is higher than that predicted for PfE but also establishes that the potential area affected remains highly limited in relation to the designated sites. The potential for the higher NH₃ contribution to affect site integrity has therefore been considered in terms of both magnitude and spatial extent, rather than treating the percentage of the Critical Load as determinative of the outcome.

NO_x

- 4.4.33. The Local Plan predicts a maximum contribution of less than 1% of the relevant Critical Level for NO_x. This is substantially lower than the more than 2% contribution considered through the PfE HRA. The current contribution is below the screening benchmark applied in the assessment and does not indicate a potentially significant increase in NO_x concentrations requiring further site-specific consideration.
- 4.4.34. The PfE HRA also considered total NO_x concentrations, rather than the Local Plan-related contribution alone, and concluded that the total concentrations in the areas where the Local Plan-related contribution exceeded the screening threshold remained below the relevant Critical Level.
- 4.4.35. Given that the Local Plan-related contribution is less than 1% of the relevant Critical Level, an adverse effect on the integrity of the South Pennine Moors SAC or Peak District Moors (South Pennine Moors Phase 1) SPA from airborne NO_x can be excluded.

Acid deposition

- 4.4.36. The potential for effects associated with acid deposition has also been considered. The PfE HRA identified areas where the contribution from Plan-related traffic exceeded the relevant screening threshold for acid deposition and undertook Appropriate Assessment of the affected areas. The assessment found that the areas predicted to exceed the screening threshold for acid deposition were smaller than those identified for nitrogen deposition. The nitrogen-deposition assessment therefore encompassed the areas requiring consideration for acid deposition, and the same site-specific ecological evidence and conclusions were applied.
- 4.4.37. This HRA has similarly considered the spatial extent of the predicted acid-deposition contribution and the relationship between the areas of potential exceedance and the relevant qualifying habitats. The areas in which the Draft Plan-related contribution exceeds 1% of at least one relevant air-quality benchmark are highly limited in extent, with less than 1.34ha falling within the identified area across the South Pennine Moors SAC and Peak District Moors (South Pennine Moors Phase 1) SPA. The relevant receptor areas include SSSI Unit 187, where dwarf shrub heath is the principal habitat of relevance.

- 4.4.38. The potential acid-deposition effect is therefore considered in the context of the same highly localised areas assessed for the other atmospheric pollution pathways. Given the limited spatial extent of the potential effect, the distribution of the relevant habitats within the affected areas, and the conclusions reached for the more extensive nitrogen-deposition assessment, there is no evidence that the Draft Plan-related contribution to acid deposition would result in a change to the extent, distribution, structure or function of the qualifying habitats, or the supporting processes on which they rely, that would undermine the conservation objectives of the South Pennine Moors SAC.
- 4.4.39. It is therefore concluded that the Local Plan would not adversely affect the integrity of the South Pennine Moors SAC or Peak District Moors (South Pennine Moors Phase 1) SPA as a result of acid deposition.
- 4.4.40. The very limited extent of the overall area in which any assessed air-quality contribution exceeds 1%, together with the distribution of the relevant qualifying habitats and the evidence from the PfE's site-specific assessment, indicates that acid deposition would not result in an effect capable of undermining the conservation objectives of the designated sites.

Relationship with the conservation objectives

- 4.4.41. The South Pennine Moors SAC conservation objectives require the extent and distribution of qualifying habitats, their structure and function and the supporting processes on which they rely to be maintained or restored as appropriate.
- 4.4.42. The assessment has therefore considered whether the Local Plan-related atmospheric pollution could result in a change to the qualifying habitats or their supporting processes at a scale or magnitude capable of undermining those objectives.
- 4.4.43. The evidence does not indicate such an effect. The potential effect is therefore highly localised and concentrated close to the existing road network. It does not represent a widespread change in atmospheric conditions across the South Pennine Moors or a change affecting the extent and distribution of the qualifying habitats across the designated sites.
- 4.4.44. The assessment has nevertheless considered the individual receptor areas rather than relying solely on the proportion of the overall designated site affected. This is why Units 187 and 206 have been specifically considered.
- 4.4.45. In both units, the principal habitat of relevance is dwarf shrub heath. Although the affected area within Unit 187 represents a greater proportion of the unit than that within Unit 206, the area remains limited to approximately 2.66ha. Within Unit 206, only approximately 0.02ha is within the identified area.
- 4.4.46. The assessment therefore does not identify evidence of a widespread change to the extent or distribution of dwarf shrub heath within either unit.
- 4.4.47. The available evidence also does not indicate that the limited areas of dwarf shrub heath within the modelled exceedance areas would undergo a change in structure or function, or in the supporting processes on which the habitat relies, that would undermine the conservation objectives of the South Pennine Moors SAC.

Wider sources of atmospheric pollution

- 4.4.48. The South Pennine Moors are subject to atmospheric nitrogen inputs from a range of sources.

- 4.4.49. The PfE HRA considered the relative contribution of road traffic to the wider nitrogen deposition burden and identified road traffic as only a relatively small component of local nitrogen deposition, with agricultural and waste sources accounting for the majority of the contribution.
- 4.4.50. This is relevant to consideration of the conservation objectives because restoration of the South Pennine Moors will require the wider atmospheric pollution burden affecting the site to be addressed.
- 4.4.51. The Local Plan-related contribution is limited spatially to the road corridors and affects only a very small proportion of the designated sites.
- 4.4.52. The additional contribution from Plan-related traffic would therefore not prevent wider measures addressing the principal sources of atmospheric pollution from being undertaken or from contributing to the restoration of the designated sites.
- 4.4.53. This consideration is not relied upon to demonstrate that the Local Plan-related contribution is incapable of having an effect. Rather, it provides context for considering whether the limited additional contribution from Plan-related traffic could prevent achievement of the site's conservation objectives.

Overall assessment

- 4.4.54. This HRA recognises that the Local Plan-related contribution exceeds the 1% screening benchmark for NH₃ and nitrogen deposition within limited areas of the South Pennine Moors SAC and Peak District Moors (South Pennine Moors Phase 1) SPA. These pathways have therefore been considered through Appropriate Assessment.
- 4.4.55. The current modelling predicts approximately 4.5% of the relevant Critical Load for NH₃, less than 1% of the relevant Critical Level for NO_x and approximately 4.5% of the relevant Critical Load for nitrogen deposition.
- 4.4.56. The NH₃ contribution is higher than the approximately 3.5% predicted through the PfE HRA. This difference has been explicitly recognised and this HRA does not rely on the PfE HRA's result to dismiss the higher current contribution.
- 4.4.57. The nitrogen deposition contribution is broadly comparable with the approximately 4.5% predicted through PfE, while the NO_x contribution is substantially lower. Importantly, this HRA has established the spatial extent of the area in which at least one of the assessed air-quality contributions exceeds 1%. This area is approximately 2.68ha across the South Pennine Moors SAC, representing approximately 0.004% of the SAC, and approximately 0.006% of the Peak District Moors (South Pennine Moors Phase 1) SPA.
- 4.4.58. Within the relevant SSSI units, approximately 2.66ha of Unit 187, representing approximately 1.09% of the unit, and approximately 0.02ha of Unit 206, representing approximately 0.005% of the unit, fall within the identified area.
- 4.4.59. Both units contain dwarf shrub heath as the principal habitat of relevance. The assessment has therefore considered the predicted effects against the actual receptor rather than simply considering the percentage contribution to the Critical Load in isolation.
- 4.4.60. The affected area is highly localised. It does not represent a widespread change in atmospheric conditions across the South Pennine Moors and comprises only a very small proportion of the

designated sites and, except for the limited area of Unit 187, a very small proportion of the individual relevant SSSI units.

- 4.4.61. The PfE HRA provides useful supporting evidence because it considered the same designated sites as this HRA, in addition to others, as well as the same broad atmospheric pollution pathways and the same general receptor habitats through Stage 2 Appropriate Assessment, including consultation with Natural England.
- 4.4.62. However, the current conclusion has been reached independently, taking account of the Plan's modelling, the actual spatial extent of the current predicted exceedance areas and the identified receptor habitats within Units 187 and 206.
- 4.4.63. The PfE HRA is particularly relevant in demonstrating that the significance of traffic-related atmospheric pollution at the South Pennine Moors cannot be determined solely by reference to the percentage contribution relative to a Critical Load or Critical Level.
- 4.4.64. The spatial extent of the effect, the location and characteristics of the qualifying habitats within the affected areas and the relationship between those areas and the conservation objectives are also important considerations.
- 4.4.65. This HRA has applied this approach to the Draft Plan. It identifies the relevant receptor areas, quantifies the area within which a contribution above the screening benchmark is predicted and considers that area in relation to the qualifying habitats and the overall extent of the designated sites.
- 4.4.66. The wider air-quality policies contained within the Draft Plan have also been considered as part of the overall policy framework. These policies provide additional context regarding the Draft Plan's approach to improving air quality and reducing transport-related emissions but are not relied upon as the sole basis for excluding an adverse effect on site integrity.
- 4.4.67. On the basis of the current modelling, the highly limited spatial extent of the predicted air-quality effects, the distribution and characteristics of the relevant qualifying habitats, including dwarf shrub heath within SSSI Units 187 and 206, the conservation objectives of the South Pennine Moors SAC and Peak District Moors (South Pennine Moors Phase 1) SPA, the available site-specific ecological evidence and the relevant evidence arising from the previous PfE HRA, there is no evidence that the additional atmospheric pollution associated with the Plan would result in a change to the extent, distribution, structure or function of the qualifying habitats, or the supporting processes on which they rely, at a scale capable of undermining the conservation objectives of the South Pennine Moors SAC.
- 4.4.68. Similarly, there is no evidence that the predicted air-quality changes would result in deterioration of the habitats supporting the qualifying bird populations of the Peak District Moors (South Pennine Moors Phase 1) SPA or otherwise undermine the achievement of its conservation objectives.
- 4.4.69. It is therefore concluded that the Draft Plan would not adversely affect the integrity of the South Pennine Moors SAC or Peak District Moors (South Pennine Moors Phase 1) SPA, either alone or in combination with other plans and projects, through airborne NO_x, airborne NH₃, or nitrogen deposition. An adverse effect on the integrity of the South Pennine Moors SAC and Peak District Moors (South Pennine Moors Phase 1) SPA can therefore be excluded.

4.5 Background Trends

- 4.5.1. National policy initiatives are expected to contribute to improvements in air quality over the Plan period. The UK Air Quality Plan for Nitrogen Dioxide¹⁵ is anticipated to result in a substantial reduction in NO_x emissions from vehicles, supported by the Department for Transport's initiative to phase out the sale of new petrol and diesel cars by 2030 and inclusive of vans by 2035¹⁶. This transition to zero-emission transport is expected to lead to a corresponding decrease in background nitrogen deposition rates. Incorporating allowances for expected background air quality improvements into assessments is supported by the Institute of Air Quality Management (Institute of Air Quality Management, 2020).

¹⁵ Air quality plan for nitrogen dioxide (NO₂) in UK (2017): <https://www.gov.uk/government/publications/air-quality-plan-for-nitrogen-dioxide-no2-in-uk-2017>

¹⁶ Department for Transport (2024) *Phasing out the sale of new petrol and diesel cars from 2030 and Support for Zero Emission Transition*. Available at <https://www.gov.uk/government/speeches/phasing-out-the-sale-of-new-petrol-and-diesel-cars-from-2030-and-support-for-zero-emission-vehicle-zev-transition>

5 Conclusion

- 5.1.1. This information to inform HRA has considered all European sites identified within the relevant Zol, including SACs, SPAs and Ramsar sites, and all impact pathways that could reasonably arise from development provided for by the Plan.
- 5.1.2. At Stage 1 screening, the majority of potential impact pathways were screened out, as no credible LSE was identified. Potential air-quality effects were taken forward to Stage 2 (Appropriate Assessment) where LSE could not be excluded at Stage 1.
- 5.1.3. The Stage 2 assessment considered airborne NO_x, NH₃, nitrogen deposition and acid deposition, as relevant to the individual European sites and their qualifying features. The assessment considered the magnitude and spatial extent of the predicted effects, the habitats and qualifying features present, the conservation objectives of the sites and relevant site-specific evidence. It concluded that the predicted air-quality effects would not adversely affect the integrity of the European sites assessed.
- 5.1.4. For the South Pennine Moors SAC and the Peak District Moors (South Pennine Moors Phase 1) SPA, the Plan-alone modelling did not identify any air-quality contribution exceeding 1% of the relevant screening benchmark. Potential exceedances were identified under the in-combination modelling and were therefore considered through the Stage 2 of the Habitats Regulations. The assessment concluded that these effects, including those affecting limited areas of dwarf shrub heath and blanket bog, would not adversely affect the integrity of the South Pennine Moors SAC or the Peak District Moors (South Pennine Moors Phase 1) SPA.
- 5.1.5. For the Rochdale Canal SAC, the Plan-alone and in-combination modelling results were broadly similar, with only very small differences in the predicted magnitude and spatial distribution of effects. These differences were not considered material to the assessment conclusions, and a single set of modelling results was therefore used in the detailed assessment. The in-combination modelling incorporated the relevant plans and projects identified in **Appendix C**.
- 5.1.6. The assessment has also considered relevant previous HRA work and site-specific evidence, including the PfE HRA, where relevant. Such evidence has informed, but has not replaced, the assessment of the Plan.
- 5.1.7. Overall, no adverse effect on the integrity of any European site considered has been identified, either from the Plan alone or in combination with other plans and projects.
- 5.1.8. It is therefore concluded that the Local Plan will not adversely affect the integrity of any European site considered within this HRA, either alone or in combination with other plans and projects, having regard to the conservation objectives of those sites and the qualifying features for which they have been designated.
- 5.1.9. No further assessment under the Habitats Regulations is therefore required in relation to the Plan.

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Appendix A

Figures

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Figure A-1 - Study areas and Statutory designated Sites

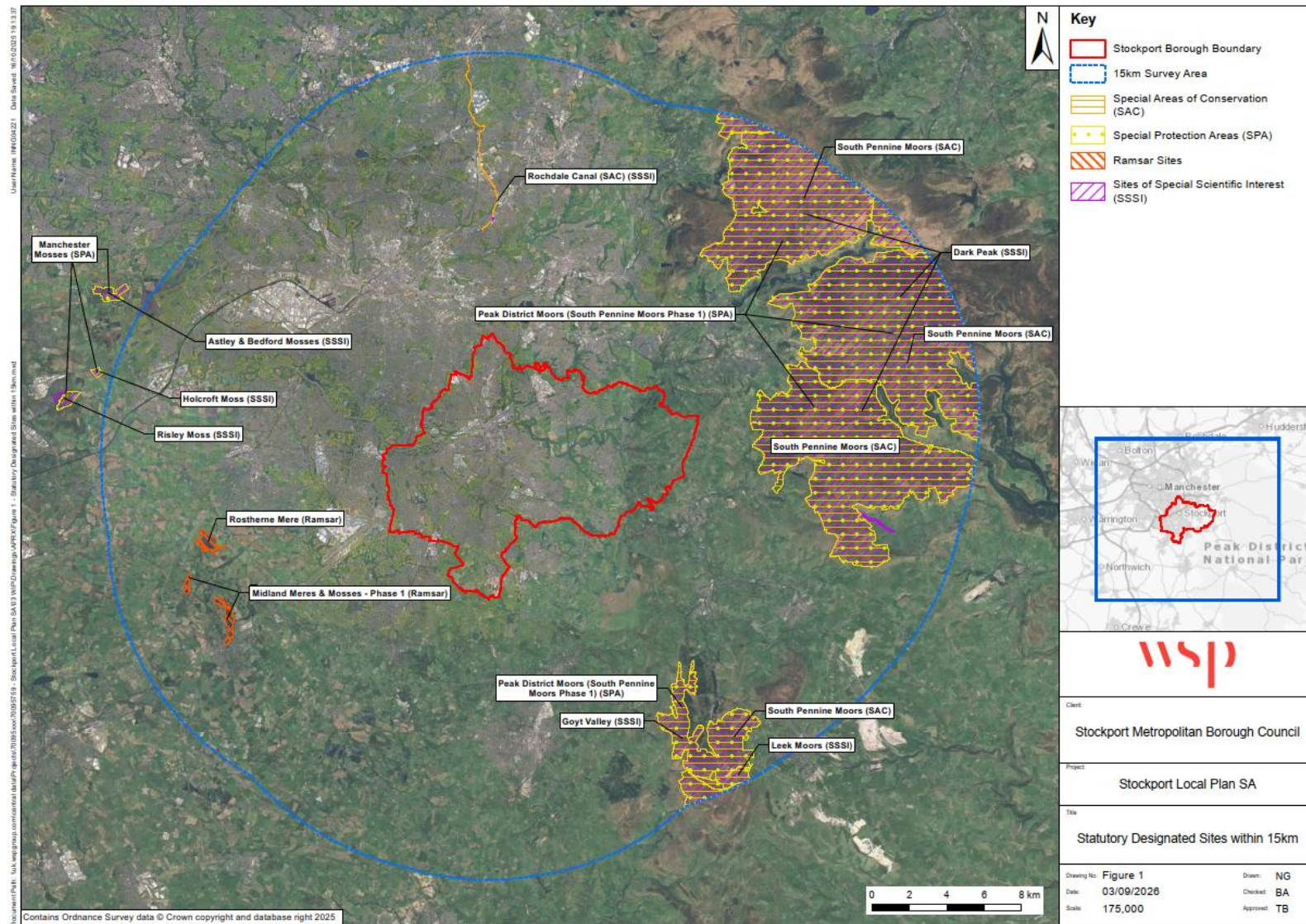
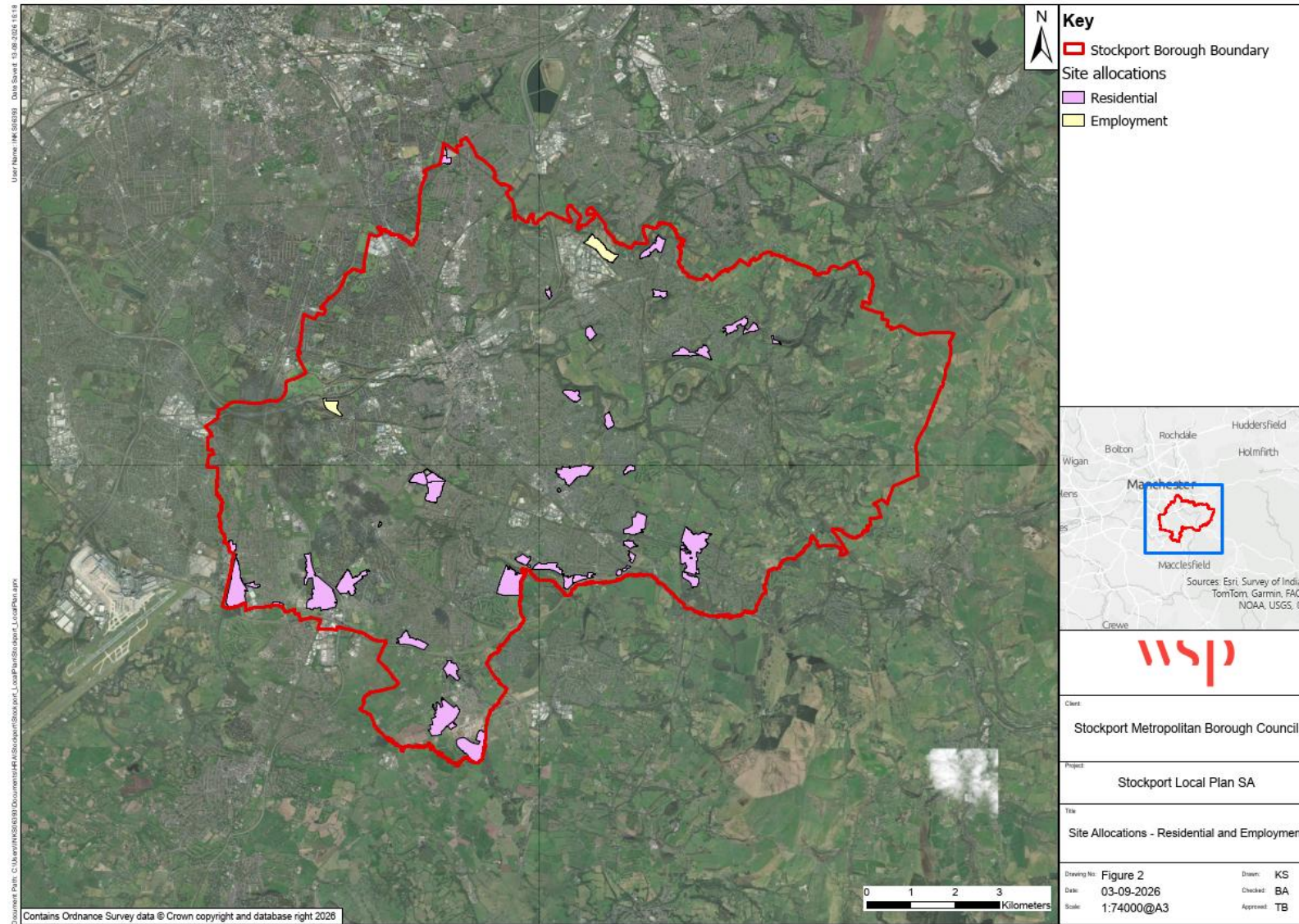
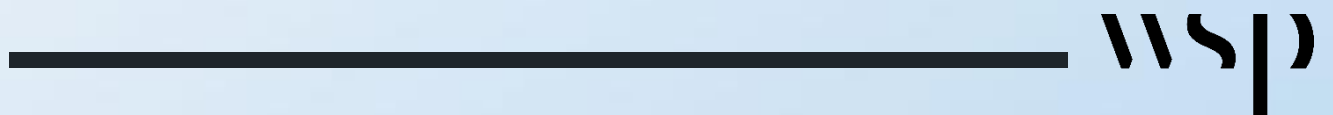


Figure A-2 - Site Allocations - Residential and Employment



Appendix B

Air Quality Modelling Results





Stockport Metropolitan Borough Council

AIR QUALITY ASSESSMENT FOR STOCKPORT METROPOLITAN BOROUGH COUNCIL' S REGULATION 19 HABITATS REGULATIONS ASSESSMENT





Stockport Metropolitan Borough Council

AIR QUALITY ASSESSMENT FOR STOCKPORT METROPOLITAN BOROUGH COUNCIL' S REGULATION 19 HABITATS REGULATIONS ASSESSMENT

TYPE OF DOCUMENT (VERSION) CONFIDENTIAL

PROJECT NO. UK70095759

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QUALITY CONTROL

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1 INTRODUCTION

- 1.1.1 WSP has been commissioned to undertake an assessment of the likely air quality impacts at ecological receptors arising from the implementation of Stockport Metropolitan Borough Council's (SMBC's) Local Plan. The plan covers the period up to 2042.
- 1.1.2 The assessment has considered roadside concentrations of nitrogen oxides (NO_x), ammonia (NH₃) and nitrogen (N) deposition (including the contribution of NH₃ to total N deposition) at European Sites (Habitats Sites comprising Special Protection Areas (SPA's) and Special Areas of Conservation (SAC's) and their component Sites of Special Scientific Interest (SSSI's)) which are designated for their nature conservation importance and protected under the Conservation of Habitats and Species Regulations 2017 (as amended).
- 1.1.3 Total concentrations/deposition have been compared to the relevant Critical Levels (CL_e) and Critical Loads (CL_o) identified for each of the designated ecological sites. Predicted changes arising from the Local Plan which have also been assessed and expressed as a percentage of the relevant CL_e or CL_o.
- 1.1.4 The assessment considered both the impacts of the Local Plan 'alone' and 'in-combination' with neighbouring plans and projects. These assessments include the contribution from committed development, development allocated through the Local Plan and background growth up to 2042. It has also considered forecast changes in the vehicle fleet and background concentrations of NO_x and NH₃, and rates of N nutrient deposition, over the Local Plan period.
- 1.1.5 The results for the Habitats Sites and component SSSIs have been provided to the WSP Project Ecologist to inform the preparation of an Information to inform an Appropriate Assessment (IIAA) for the Local Plan. The IIAA will use these results to determine the potential for Likely Significant Effects (LSE) as a result of SMBC's Local Plan.
- 1.1.6 The assessment report has been split into the following distinct sections:
- **Section 2** – Relevant legislation, planning policy and guidance
 - **Section 3** – Methodology
 - **Section 4** – Baseline Conditions
 - **Section 5** – Modelling Results
 - **Section 6** – Summary and Conclusions
- 1.1.7 The report is supported by the following appendices:
- **Appendix A** – Glossary
 - **Appendix B** – Legislation, Policy and Guidance
 - **Appendix C** – Detailed Methodology
 - **Appendix D** – Designated Site Characteristics
 - **Appendix E** – Meteorological Data
 - **Appendix F** – Traffic Data
 - **Appendix G** – Model Verification
 - **Appendix H** – Results Summary
 - **Appendix I** – Figures

2 LEGISLATION, POLICY AND GUIDANCE

2.1 AIR QUALITY LEGISLATION

2.1.1 The following legislation is relevant to the assessment presented herein:

- Air Quality Standards Regulations 2010¹;
- Conservation of Habitats and Species Regulations 2017, As Amended²;
- European Union (Withdrawal) Act 2018³;
- The Environment Act 1995⁴; and
- The Environment Act 2021⁵.

2.1.2 The primary pollutants of concern in this assessment are NO_x, NH₃ and N deposition. Road traffic is a major source of NO_x emissions, whereas agricultural activities are the predominant source of NH₃ emissions. N deposition results from the deposition of nitrogen compounds derived from both NO_x and NH₃ emissions.

2.1.3 Designated European, national and local nature sites are afforded protection from the adverse effects of air pollution. The Guide to the Assessment of Air Quality Impacts on Designated Nature Conservation Sites⁶ provides air quality standards for NO_x and NH₃. The concentrations are summarised in **Table 2-1**. It should be noted that, when considering the effect of airborne pollutant concentrations on ecological receptors, the relevant assessment benchmark is referred to as the 'critical level' (CLE). CLEs are defined by the United Nations Economic Commission⁷ for Europe as:

"concentrations of pollutants in the atmosphere above which direct adverse effects on receptors, such as human beings, plants, ecosystems or materials, may occur according to present knowledge".

Table 2-1- Relevant NO_x and NH₃ critical levels for the protection of vegetation and ecosystems

Pollutant	Objective	Averaging period
NO _x	30µg/m ³	Annual mean

¹ The National Archives (2010). *The Air Quality Standards Regulations 2010* [online]. Available at: <https://www.legislation.gov.uk/ukxi/2010/1001/contents/made> [Accessed August 2026].

² EUR-Lex (1992). *Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora* [online]. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31992L0043> [Accessed August 2026].

³ The National Archives (2018). *European Union (Withdrawal) Act 2018* [online]. Available at: <https://www.legislation.gov.uk/ukpga/2018/16/contents> [Accessed August 2026].

⁴ The National Archives (1995). *Environment Act 1995* [online]. Available at: <https://www.legislation.gov.uk/ukpga/1995/25/contents> [Accessed August 2026].

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⁶ IAQM (May 2020). *Guide to the Assessment of Air Quality Impacts on Designated Nature Conservation Sites*. Available at: <https://iaqm.co.uk/text/guidance/air-quality-impacts-on-nature-sites-2020.pdf> [Accessed August 2026].

⁷ UNECE Convention on Long-range Transboundary Air Pollution (CLRTAP) (2024) Manual on Methodologies and Criteria for Modelling and Mapping Critical Loads and Levels and Air Pollution Effects, Risks and Trends [online]. Available at: <https://www.umweltbundesamt.de/manual-on-methodologies-criteria-for-modelling-2024> [Accessed August 2026].

Pollutant	Objective		Averaging period
NH ₃	3µg/m ³ (with uncertainty of 2-4µg/m ³)	Higher Plants	Annual mean
	1µg/m ³	Lichens and Bryophytes	Annual mean

2.1.4 In addition, vegetation can be affected by the deposition of pollutants and particles on the ground and vegetative surfaces. Close to roads, the key concern for sensitive sites are typically nitrogen deposition (N deposition) and acid deposition, which can result in a variety of effects depending on the habitat present (e.g. interfering with photosynthesis, altering species composition etc). In relation to deposition, the relevant assessment benchmarks are referred to as ‘critical loads’, which are defined as:

“...a quantitative estimate of exposure to one or more pollutants below which significant harmful effects on specified sensitive elements of the environment do not occur according to present knowledge.”

2.1.5 The Air Pollution Information Services (APIS)⁸ contains information on applicable CLoS for various habitats and species.

2.1.6 N deposition and Acid deposition CLoS are given as a range and have units of kg N/ha/yr. and keq/ha/yr respectively. Generally, the lower end of the range should be used as a conservative assessment. The CLoS applied to this assessment are habitat specific and further details are provided in **Appendix D Table D-1**.

2.2 AIR QUALITY POLICY

2.2.1 The planning policy relevant to air quality and designated ecological sites is the Places For Everyone Joint Development Plan 2022 to 2039⁹.

2.3 AIR QUALITY GUIDANCE

2.3.1 The following guidance documents have been referred to in the undertaking of the air quality assessment:

- Local Air Quality Management Review and Assessment Technical Guidance¹⁰;
- Natural England’s Air Pollution and Development: Advice for Local Authorities¹¹;
- Natural England’s Approach to Advising Competent Authorities on the Assessment of Road Traffic Emissions under the Habitats Regulations¹²;

⁸ Air Pollution Information System (APIS) (2026). APIS – Air Pollution Information System [online]. Available at: <https://www.apis.ac.uk/> [Accessed August 2026].

⁹ Greater Manchester Combined Authority (2024) Places for Everyone Joint Development Plan 2022 to 2039 (2024). Available at: <https://www.greatermanchester-ca.gov.uk/media/9578/places-for-everyone-joint-development-plan-document.pdf> [Accessed August 2026]

¹⁰ Defra (2022). *Local Air Quality Management Technical Guidance LAQM.TG (22)*. Available at: <https://laqm.defra.gov.uk/wp-content/uploads/2022/08/LAQM-TG22-August-22-v1.0.pdf>. [Accessed August 2026].

¹¹ Natural England (2025). *Air Pollution and Development: Advice for Local Authorities*. Available at: <https://www.gov.uk/guidance/air-pollution-and-development-advice-for-local-authorities> [Accessed August 2026].

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- Guide to the Assessment of Air Quality Impacts on Designated Nature Conservation Sites⁶;
- AQTAG(06)¹³ Technical Guidance on Detailed Modelling Approach for an Appropriate Assessment for Emissions to Air;
- CIEEM Advisory Note: Ecological Assessment of Air Quality Impacts¹⁴;
- Holcroft Moss Planning Obligations Supplementary Planning Document¹⁵; and
- Joint Nature Conservation Committee Report No.665 Nitrogen Futures¹⁶.

2.3.2 More detail on the relevant legislation, policy and guidance documents referred to in this assessment are provided in **Appendix B**.

[ance%20Note%20describes%20how%20Natural.Natural%20England%E2%80%99s%20own%20approach%20when%20applying%20the%20](#) [Accessed August 2026].

¹³ AQTAG (2014). *Technical Guidance on Assessment of Emissions to Air* (AQTAG06). Available at: [http://bailey.personapi.com/Public-Inquiries/A465-English/8%20Air%20Quality/8.2.2%20-%20AQTAG06 Technical%20Guidance%20Assessment%20emissions%20to%20air%20Mar2014.pdf](http://bailey.personapi.com/Public-Inquiries/A465-English/8%20Air%20Quality/8.2.2%20-%20AQTAG06%20Technical%20Guidance%20Assessment%20emissions%20to%20air%20Mar2014.pdf) [Accessed August 2026].

¹⁴ CIEEM (January 2021). *Advisory Note: Ecological Assessment of Air Quality Impacts*. Available at: <https://cieem.net/resource/advisory-note-ecological-assessment-of-air-quality-impacts/#:~:text=Advisory%20Note%3A%20Ecological%20Assessment%20of%20Air%20Quality%20Impacts.,of%20changes%20in%20pollution%20concentrations%20and%20deposition%20rates> [Accessed August 2026].

¹⁵ Greater Manchester Combined Authority (2025) Holcroft Moss Planning Obligations Joint Supplementary Planning Document. Available at: https://www.manchester.gov.uk/data/assets/file/0021/160068/holcroft_moss_spd_adopted_8_may.pdf (Accessed: 20 August 2026).

¹⁶ Joint Nature Conservation Committee (2020). *Report No. 665 Nitrogen Futures*. Available at: <https://hub.jncc.gov.uk/assets/04f4896c-7391-47c3-ba02-8278925a99c5> [Accessed August 2026].

3 METHODOLOGY

3.1 INITIAL SCREENING EXERCISE

3.1.1 The initial screening assessment was completed through:

- Review of the SMBC Regulation 18 HRA¹⁷ Screening Report and in consultation with the Project Ecologist and Natural England, to identify those European Sites (Habitat Sites and SSSIs) that are sensitive to changes in NO_x and NH₃ concentrations and N deposition rates; and
- Review of all Habitat Sites and SSSIs identified as potentially sensitive to changes in air quality and situated proximate to roads that were likely to experience a change in Annual Average Daily Traffic (AADT).

3.1.2 The SMBC's Regulation 18 HRA Screening Assessment identified all Habitat Sites and their component SSSI's within a 10.7km¹⁸ Zone of Influence (ZOI) from SMBC's administrative boundary and included the additional sites recommended by Natural England. The anticipated changes in traffic flows within the ZOI, derived from traffic data provided, were used to identify those European Sites requiring detailed air quality assessment. The results of this assessment, including sites scoped into and out of the detailed assessment, are discussed further below.

3.1.3 The screening approach acknowledged that there are several pathways by which airborne pollutants generated by road transport may result in potential effects on sensitive ecological receptors:

- Changes in NO_x and NH₃ concentrations in relation to the relevant CLes; and
- Changes in N deposition and acid deposition in relation to the site and habitat-specific CLOs.

HABITAT SITES SCOPED OUT

3.1.4 The following Habitats Sites were screened in the Regulation 18 HRA Screening Report; however, they were screened out and were therefore not taken forward for further assessment:

- Manchester Mosses SAC;
- Rostherne Mere Ramsar; and
- Midland Meres and Mosses Phase 1 Ramsar.

3.1.5 Manchester Mosses SAC was screened out from further air quality assessment as the predicted increases in traffic flows on the M62 adjacent to the SAC are below the screening thresholds set out in the Holcroft Moss Planning Obligations Supplementary Planning Document¹⁵, namely an increase of more than 100 AADT vehicles or 20 heavy duty vehicles (HDVs) per day.

3.1.6 Rostherne Mere Ramsar and Midland Meres and Mosses Phase 1 Ramsar were screened out as the traffic changes identified on road links associated with these sites are highly likely to be artefacts of the strategic traffic model. These links are located outside of the validated Stockport traffic model

¹⁷ WSP (2025) *Stockport Metropolitan Borough Council Local Plan Review Focused Consultation (Regulation 18) Habitats Regulations (Screening) Assessment*.

¹⁸ The ZOI has been calculated using weighted average travel-to-work data for the Stockport area derived from Office for National Statistics (2021) data, which has resulted in the application of a 10.7km ZOI for the air quality assessment as agreed by Natural England.

area and therefore the predicted changes may not be representative of changes in traffic flow on specific roads. Consequently, the sites have been screened out from further assessment.

HABITATS SITES AND SSSI SCOPED IN

- 3.1.7 In their response to Regulation 18 Consultation, Natural England agreed with the screening assessment and the approach applied within the screening methodology. As such, the above screening approach is considered appropriate.
- 3.1.8 The final Habitat Sites and component SSSIs scoped in for the Regulation 19 quantitative air quality assessment are Peak District Moors (South Pennine Moors Phase 1) SPA, South Pennine Moors SAC and Dark Peak SSSI, Rochdale Canal SAC and Rochdale Canal SSSI. Hereafter, these are referred to as the 'Identified Ecological Receptors'. Details of the sites scoped into the assessment are provided below.

HABITATS SITES

- 3.1.9 The following Habitats Sites have been screened in for further assessment:
- Peak District Moors SPA;
 - South Pennine Moors SAC; and
 - Rochdale Canal SAC.
- 3.1.10 These sites were screened in at Regulation 18 and remain screened in for the Regulation 19 air quality assessment, given the presence of major roads within 200 m of sensitive qualifying features and their potential sensitivity to changes in nitrogen oxides (NO_x), ammonia (NH₃) concentrations and nitrogen deposition arising from changes in traffic associated with the SMBC Local Plan.

SITES OF SPECIFIC SCIENTIFIC INTEREST

- 3.1.11 With reference to the SMBC Regulation 18 HRA Screening Report, a list of component SSSIs within a 10.7km ZOI of SMBC's administrative boundary was given for consideration within the SMBC Local Plan Air Quality Assessment. For each Habitat Site screened out at Regulation 18, their component SSSI's were also scoped out. Therefore, the following SSSI's were screened out of further assessment:
- Rostherne Mere SSSI; and
 - Holcroft Moss SSSI.
- 3.1.12 The following SSSIs were screened in as they overlap with the relevant Habitat Sites and are subject to the same potential air quality impact pathways:
- Dark Peak SSSI; and
 - Rochdale Canal SSSI.
- 3.1.13 Dark Peak SSSI, which overlaps South Pennine Moors SAC and Peak District Moors (South Pennine Moors Phase 1) SPA, and Rochdale Canal SSSI, which overlaps Rochdale Canal SAC, were screened in at Regulation 18 and remain screened in for the Regulation 19 assessment, as they are subject to the same potential air quality impact pathways as the associated Habitat Sites.

3.2 DISPERSION MODELLING

- 3.2.1 An air quality impact assessment was completed through dispersion modelling of traffic emissions using the ADMS-Roads (version 5.1.0.2) atmospheric dispersion model. ADMS-Roads uses detailed

information regarding traffic flows on the local road network, surface roughness, and local meteorological conditions, taking into account road geometry and width to predict pollutant concentrations at specific receptor locations. For this assessment, the model has been used to predict annual mean ambient concentrations of NO_x and NH₃ (for comparison with the relevant CLe of 30µg/m³ and 1µg/m³ or 3µg/m³, respectively) together with N deposition and acid deposition (for comparison with the relevant CLos).

- 3.2.2 Traffic data were provided by the WSP Transport Consultant. These data include AADT, percentage HDVs and vehicle speed (km/h) which were processed for input into the dispersion model. Defra's emission factor toolkit (EFT) and Air Quality Consultants Calculator for Road Emissions of Ammonia (CREAM) were used to calculate NO_x and NH₃ emissions, respectively.
- 3.2.3 The centrelines of all modelled roads were aligned using online satellite imagery, and road widths were measured from the same source. This ensures consistency with real world conditions and provides an accurate representation of the distances between modelled roads and Identified Ecological Receptors.
- 3.2.4 The following traffic scenarios have been modelled:
- 2024 Baseline (as 2024 was the most recent year that traffic data were available for use in model verification);
 - 2042 Do Nothing (DN) - Forecast growth on the local road network from 2022 to 2042, accounting for background traffic growth using National Trip End Model (NTEM), excluding committed developments within SMBC, neighbouring plans and projects, and site allocations identified under the SMBC Local Plan;
 - 2042 Do Minimum (DM) – Traffic modelling for 2042, including committed developments within SMBC, and other neighbouring plans and projects; and
 - 2042 Do Something (DS) – The traffic modelling for 2042 takes account of all development allocated through the SMBC Local Plan, other local plans, projects and committed developments. Furthermore, the DS scenario assumes that no transport interventions have been implemented and no uptake of modal shift in transport. As such, this is considered to be a precautionary scenario.
- 3.2.5 In order to assess the impact of the SMBC Local Plan 'alone', the following scenarios have been compared:
- 2042 DM versus 2042 DS.
- 3.2.6 Similarly, in order to assess the impact of the SMBC Local Plan 'in-combination' with neighbouring Plans and Projects, the following scenarios have been compared:
- 2042 DN versus 2042 DS.
- 3.2.7 The 'in-combination' scenario assesses the impact of traffic for the 2042 forecast year, plus committed developments, neighbouring projects and plans, and the SMBC Local Plan against the 2042 baseline.
- 3.2.8 Modelling was verified against local monitoring of Nitrogen dioxide (NO₂) concentrations that are collected by SMBC, Oldham Council (OC) and Tameside Metropolitan Borough Council (TMBC) as part of its obligation under Part IV of the Environment Act 1995. Further details of the methodology and model verification are provided in **Appendix C and Appendix G**.

LIMITATIONS AND ASSUMPTIONS

Traffic data

- 3.2.9 The traffic model used for this assessment is based on a 2024 baseline.
- 3.2.10 The future-year traffic scenarios include growth associated with committed developments within the SMBC area. However, traffic growth outside of the SMBC boundary is represented using predicted NTEM growth factors; and
- 3.2.11 The Local Plan traffic scenario “DS” conservatively assumes full build out of the Local Plan without any traffic mitigation measures in place and assumes no modal shift in travel as a result of transport interventions. As these measures are expected to reduce vehicle trips and associated emissions, the scenario is considered conservative (an overestimate) of future traffic-related emissions and their potential impacts.

Emissions and background concentrations

- 3.2.12 The detailed assessment considered the effect of direct gaseous emissions of NO_x and NH₃ as these are the pollutants most commonly associated with potential adverse effects at the Identified Ecological Receptors due to road traffic emissions;
- 3.2.13 The NO_x and NH₃ emissions assumptions remain conservative for 2042, taking into account expected emission reductions from Government policies and the transition to zero-emission vehicles; and
- 3.2.14 Background concentrations of NH₃ and N deposition obtained from APIS have been factored forward to 2030 based on the Business as Usual (BAU) scenario presented within Nitrogen Futures (October 2020). This assumes the implementation of UK wide measures but no spatial targeting and also assumes that the National Emissions Ceilings Regulation (NECR) targets will not be met. This is considered to be a conservative assessment of likely background concentrations of NH₃ and N deposition. In addition, it does not allow for any degree of reduction that may occur between 2030 and 2042 as there are no forecasts available. Background acid N deposition rates were obtained directly from APIS for 2023. No factoring applied.

Dispersion modelling

- 3.2.15 The predicted annual mean pollutant concentrations from the dispersion model were compared against the relevant CLes and CLoS for the ecological receptors;
- 3.2.16 To ensure consistency with the 2024 traffic model, 2024 air quality monitoring data was used for model verification;
- 3.2.17 For the purposes of the modelling, all roads were assumed to be at grade. The potential influence of elevated or depressed road sections on pollutant dispersion has not been separately assessed.
- 3.2.18 The Identified Ecological Receptors were represented within the dispersion model using a series of receptor transects running perpendicular to the roads where AADT change criteria is met running through/within 200m of the Habitats Sites and SSSIs. Each transect comprised receptor points spaced at 10m intervals, extending from the closest point of the designated site to the road up to a maximum distance of 200m from the road edge. Further details provided in the **Appendix C**; and
- 3.2.19 For the purposes of the modelling, each ecological site was assigned a unique site identifier (e.g. E1, E2, etc.). Receptor transects were established at locations representative of the ecological sites

and assigned a unique transect identifier (T1, T2, etc.). Individual receptor points were identified using the ecological site identifier, transect identifier and distance from the road edge (e.g. E1_T1_20, representing a receptor located 20m from the road edge along Transect 1 within Ecological Site E1). This naming convention was applied consistently across all ecological sites assessed. Receptor transects were positioned perpendicular to the relevant roads within each receptor network. For the Rochdale Canal receptor network, these comprised Broadgate, Broadway, Semple Way, the A6104 and Oldham Road. For the South Pennine Moors receptor network, these comprised Woodhead Road (A628/B6105), Snake Pass (A57) and Chunal Lane (A624).

4 BASELINE CONDITIONS

4.1 BASELINE CONDITIONS

LOCAL EMISSION SOURCES

- 4.1.1 The baseline air quality assessment focuses on the area within 2km of ecological sites located adjacent to roads where the Local Plan is predicted to result in an increase in AADT. This study area was defined to capture locations where changes in road traffic associated with the Local Plan may influence pollutant concentrations and potentially contribute to air quality effects at nearby ecological receptors.
- 4.1.2 Local emissions within SMBC's administrative area are mainly influenced by emissions from road transport and agricultural activities. A number of strategic routes pass through the council's administrative area, notably the A62, A664, A663, A626, A627, A6, M67 and M60. These main roads are likely to feed into various other road links which fall in proximity to Identified Ecological Receptors.
- 4.1.3 According to the Environment Agency's public register for permitted installations¹⁹, twelve Part A1²⁰ installations were identified within 2km of the Identified Ecological Receptor where traffic increases are predicted. The closest installation to Rochdale Canal SAC and SSSI is Urban Reserve (Assetco 2) Limited (EPR/MP3047QL), located approximately 20m to the east. The closest installations to Dark Peak SSSI, the Peak District Moors SPA and South Pennine Moors SAC are Ilkeston Power Limited (EPR/BP3625SP) and Westfield SM Limited (EPR/BP3125SN), both located approximately 1.2km to the southwest. For local authorities with administrative areas located within 2km of the Habitat Sites, data on licensed Part A2 and B²¹ processes were not publicly available.
- 4.1.4 Emissions from existing permitted installations are not expected to change as a result of the Local Plan. These sources have not been explicitly modelled within the dispersion modelling undertaken for this assessment. Air pollutant contributions associated with the above-mentioned processes are inherently accounted for within the APIS NO_x and NH₃ background concentrations and N deposition levels and are therefore included within the total concentrations and deposition included within this assessment.
- 4.1.5 In addition to the Environment Agency's public register for permitted installations, a review of proposed infrastructure and development within the study area was undertaken to identify developments which could be considered within the assessment. It is noted that a number of committed developments are located within the study area; however, the traffic associated with these developments is reflected within the forecast traffic data used to inform the air quality assessment. As such, their contribution to future traffic-related emissions has already been taken into account within the assessment of Local Plan effects. No additional infrastructure or agricultural

¹⁹ Environment Agency (2022) Environmental Permitting Regulations – Installations [online]. Available at: <https://environment.data.gov.uk/public-register/view/search-industrial-installations> [Accessed August 2026].

²⁰ Large industrial processes regulated by the Environment Agency for emissions to air, water and land.

²¹ Smaller industrial processes regulated by local authorities; Part A2 controls emissions to air, water and land, while Part B controls emissions to air only.

operations were identified that would be expected to result in significant air quality effects on the identified ecological receptors.

SITE CONCENTRATIONS AND DEPOSITION RATES

- 4.1.6 To define baseline conditions across the study area, NH₃ concentrations in relation to CLe and N Deposition in relation to the relevant CLo were sourced from APIS. APIS CLo and CLe for each qualifying feature are shown in **Appendix D Table D-1**.
- 4.1.7 Background NO_x concentrations were obtained from the Defra background maps²², while background NH₃ concentrations and nitrogen deposition rates were obtained from APIS as a three-year average (2022-2024), based on model predictions. These background concentrations and deposition rates are presented in **Appendix D Table D-2** for the Identified Ecological Receptors.
- 4.1.8 Identified Ecological Receptors are represented by areas of short vegetation only. No long vegetation habitats were identified within the study area.

NO_x concentrations in relation to the Critical Level

- 4.1.9 Predicted background concentrations are below the CLe of 30µg/m³ for annual mean NO_x at all Identified Ecological Receptors when considering the maximum predicted concentration within each of the Habitats Sites and SSSIs. The maximum background NO_x concentrations within the identified Ecological Receptors are predicted to be 25.32µg/m³ at Rochdale Canal SAC and SSSI and 9.35µg/m³ at South Pennine Moors SAC, Peak District Moors SPA and Dark Peak SSSI. Furthermore, Defra modelled background NO_x concentrations improve each year with the uptake of a cleaner road vehicle fleet.

NH₃ concentrations in relation to the Critical Level

- 4.1.10 Typically, the lower NH₃ CLe is applied where lichens and bryophytes are present due to their particular sensitivity to changes in NH₃ concentrations. Predicted background annual mean NH₃ concentrations are below the relevant CLe of 3µg/m³ at all receptors within Rochdale Canal SAC and SSSI. Within South Pennine Moors SAC, Peak District Moors SPA and Dark Peak SSSI, where a CLe of 1µg/m³ applies, predicted background concentrations are below CLe at some receptors and marginally exceed it at others. The maximum background NH₃ concentrations within the Identified Ecological Receptors are predicted to be 1.33µg/m³ at Rochdale Canal SAC and SSSI and 1.01µg/m³ at South Pennine Moors SAC, Peak District Moors SPA and Dark Peak SSSI.

N Deposition and relevant Critical Loads

- 4.1.11 There are widespread baseline exceedances of the relevant CLo across all Identified Ecological Receptors when considering the deposition rates from APIS (2022-2024). However, it is noted that N deposition rates are expected to improve year on year due to the uptake of a cleaner road vehicle fleet. As such, future deposition rates may fall below the current levels even with the Local Plan in place.

²² Department for Environmental, Food and Rural Affairs (2026) Background Mapping data for local authorities [online] Available at: <https://uk-air.defra.gov.uk/data/laqm-background-maps?year=2021> [Accessed August 2026]

Acid Deposition and relevant Critical Loads

- 4.1.12 There are widespread baseline exceedances of the relevant CLOs across all Identified Ecological Receptors when considering the deposition rates from APIS (2022-2024). However, it is noted that acid deposition rates are expected to improve year on year due to the uptake of a cleaner road vehicle fleet. As such, future deposition rates may fall below the current levels even with the Local Plan in place. It should be noted, however, that APIS does not provide a site-specific acid deposition critical load for floating water-plantain (*Luronium natans*), which is a qualifying feature of the Rochdale Canal SAC/SSSI.

5 MODELLING RESULTS

5.1 RESULTS FOR HABITATS SITES

- 5.1.1 The results of the HRA Stage 1 (Screening) are given in this section. Two levels of analysis are provided:
- The initial screening based on predicted changes which exceed 1% of the relevant CLe (for NO_x and NH₃ concentrations) and/or CLo for N deposition; and
 - A further level of analysis was undertaken which considered:
 - The distance at which the total NO_x concentrations decrease to within the CLe of 30µg/m³;
 - The distance at which NH₃ concentrations decrease to within the lower value of the CLe (1 µg/m³ or 3µg/m³) for all relevant vegetation types;
 - The distance at which CLoS of N deposition fall to the lower value of the CLo range for any relevant vegetation types; and
 - The distance to which exceedances of the CLe and/or CLo occur in conjunction with a change greater than 1% of the relevant CLe/CLo.
- 5.1.2 The modelling is based on potential exceedances within the Habitats Site boundary, and hence the presence of extensive road verges has been discounted unless part of the Habitats Site itself. For ease of reference, both the distance between the receptor and the closest part of the site boundary to the roadside (referred to as distance 'into the site') and the distance between the receptor and the modelled road edge (referred to herein as distance 'to road') have been included in the results table.
- 5.1.3 Figures showing exceedances of the 1% threshold (where applicable) along modelled transects for each pollutant and ecological site are provided in the relevant sections. Tables of results are provided to show the modelled predictions and locations where exceedances occur and to what extent for all Habitats Sites. These are presented in **Appendix H Table H-1** (ambient NO_x), **Table H-2**, (ambient NH₃) and **Table H-3** (N deposition).
- 5.1.4 All results presented below should be considered together with the limitations and assumptions of the assessment provided in **Section 3.2**.

AMBIENT NO_x

- 5.1.5 **Appendix H** shows the model predicted changes in NO_x concentrations at Identified Ecological Receptors as a result of the Local Plan both 'alone' and 'in-combination'. The results are summarised as follows:

Rochdale Canal SAC/ Rochdale Canal SSSI

- 5.1.6 Total predicted NO_x concentrations at the Rochdale Canal SAC and Rochdale Canal SSSI show an improvement across the Sites from the 2024 Baseline to the 2042 DS scenario. This improvement reflects a combination of factors, including forecast reductions in background NO_x concentrations, as derived from Defra background concentration maps, together with changes in road traffic emissions resulting from the updated vehicle fleet composition. Consequently, both background and traffic-related sources contribute to the reduction in total NO_x concentrations across the Sites. There were no exceedances of the CLe (30µg/m³) predicted at any location within these Sites.
- 5.1.7 The maximum predicted annual mean NO_x concentration in the 2042 DN, DM and DS scenario is 21.50µg/m³, 21.52µg/m³, and 21.60µg/m³ respectively, at receptor E2_T4. The associated change in NO_x concentration for the 2042 'alone' scenario and the 2042 'in-combination' scenarios are 0.08µg/m³ (0.3% of the CLe) and 0.10µg/m³ (0.3% of the CLe), respectively, at the site boundary (located 9m to road).
- 5.1.8 As total predicted concentrations fall below the CLe for NO_x across all locations within the Sites, and the predicted changes in annual mean NO_x concentrations remain below 1% of the CLe in both the 'alone' (see **Figure 5-1**) and 'in-combination' (see **Figure 5-2**) scenarios, no LSEs have been identified and no detailed review from the Project Ecologist is considered necessary with regard to changes in ambient NO_x concentrations.

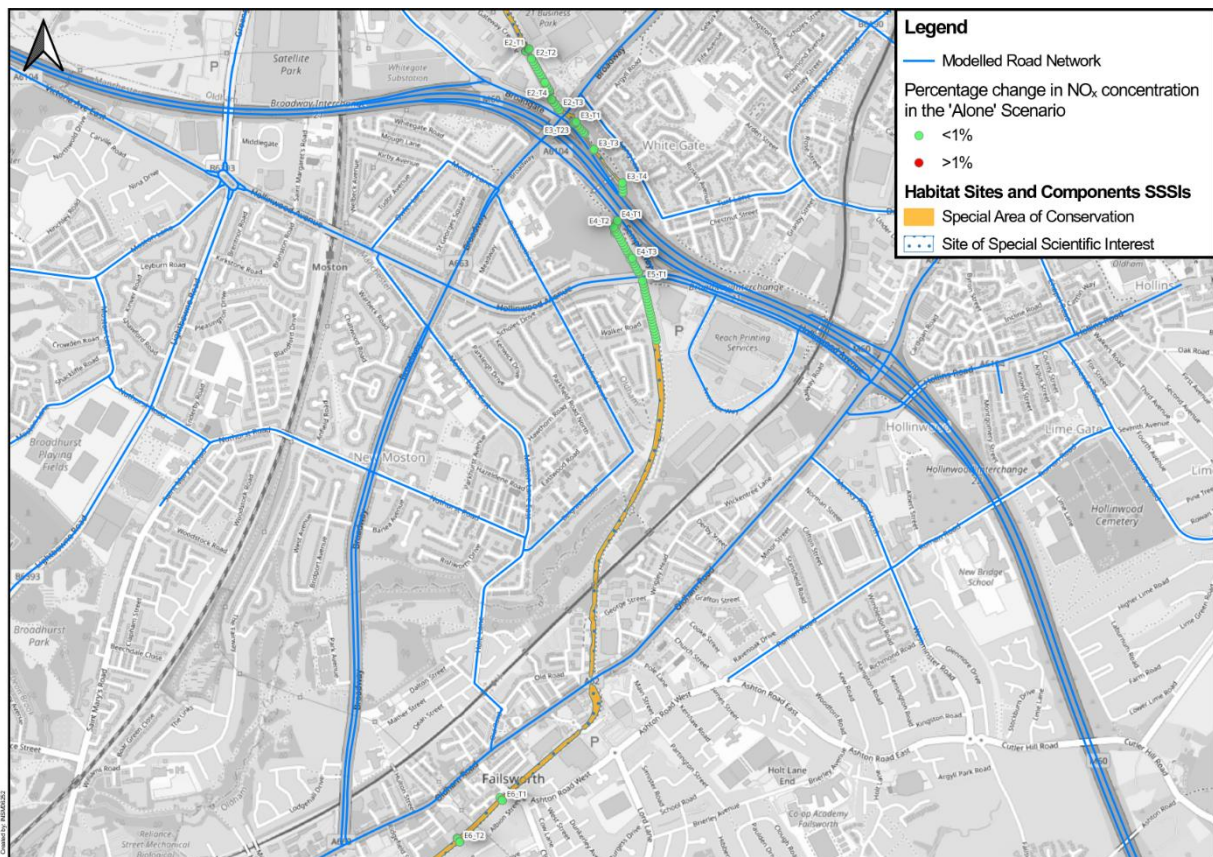


Figure 5-1 - Percentage Change in NO_x Concentration at Rochdale Canal under the Local Plan 'Alone' Scenario

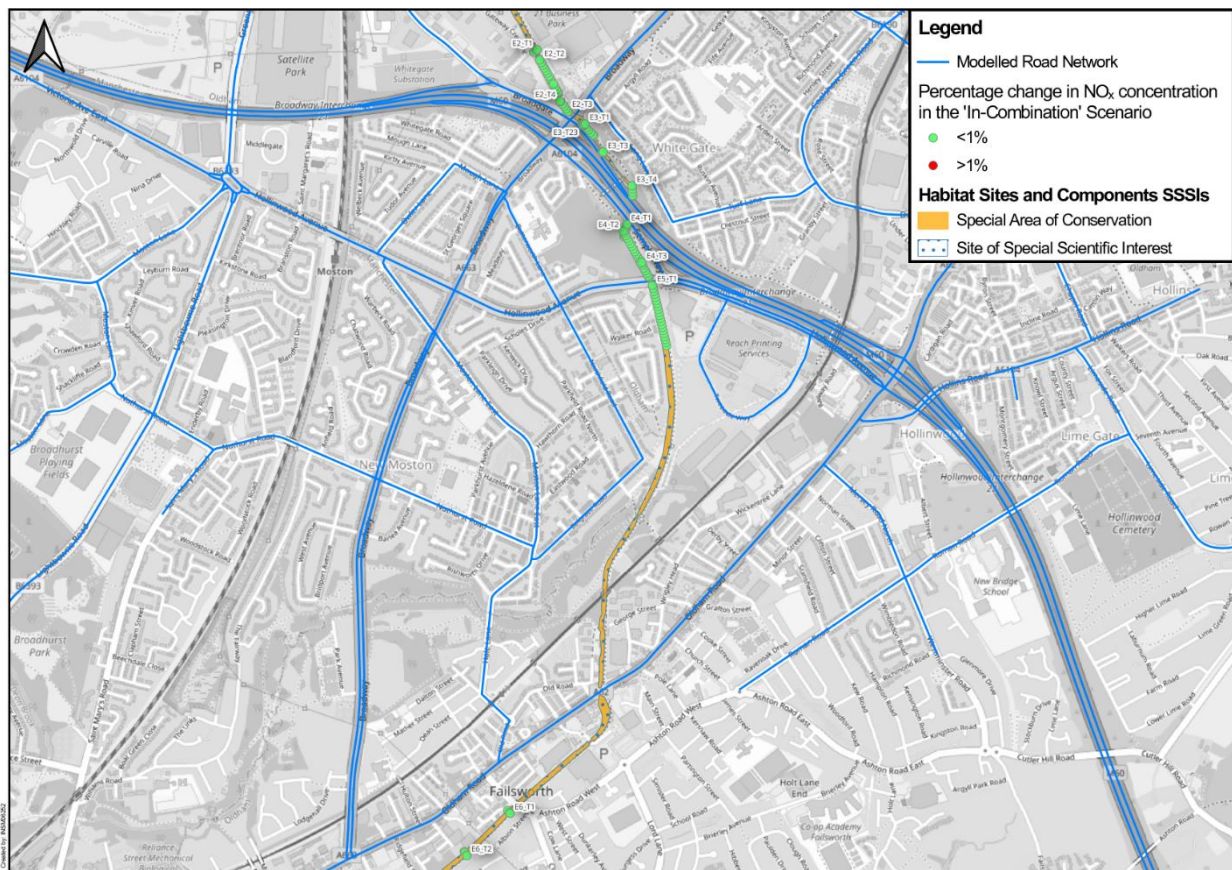


Figure 5-2 - Percentage Change in NO_x Concentration at Rochdale Canal under the Local Plan 'In-Combination' scenario

South Pennine Moors SAC/Peak District Moors (South Pennine Moors Phase 1) SPA/Dark Peak SSSI

- 5.1.9 Total predicted NO_x concentrations at South Pennine Moors SAC/Peak District Moors (South Pennine Moors Phase 1) SPA/Dark Peak SSSI are predicted to improve across the sites from the 2024 Baseline to the 2042 DS both 'alone' and 'in-combination' and background NO_x concentrations are predicted to improve over time. No exceedances of the CLe (30µg/m³) are predicted at any location within these Sites.
- 5.1.10 The maximum predicted annual mean NO_x concentration in the 2042 DN, DM and DS scenario is 7.56µg/m³, 7.61µg/m³, and 7.64µg/m³ respectively, at receptor E12_T12. The associated change in NO_x concentration for the 2042 'alone' scenario and the 2042 'in combination' scenarios are 0.03µg/m³ (0.1% of the CLe) and 0.08µg/m³ (0.3% of the CLe), respectively, at the site boundary (located 9m to road).
- 5.1.11 As total predicted concentrations fall below the CLe for NO_x across all locations within the Sites, and the predicted changes in annual mean NO_x concentrations remain below 1% of the CLe in both the 'alone' (see **Figure 5-3 and Figure 5-4**) and 'in-combination' (see **Figure 5-5 and Figure 5-6**) scenarios, no LSEs have been identified. No detailed review from the Project Ecologist is considered necessary with regard to changes in ambient NO_x concentrations.

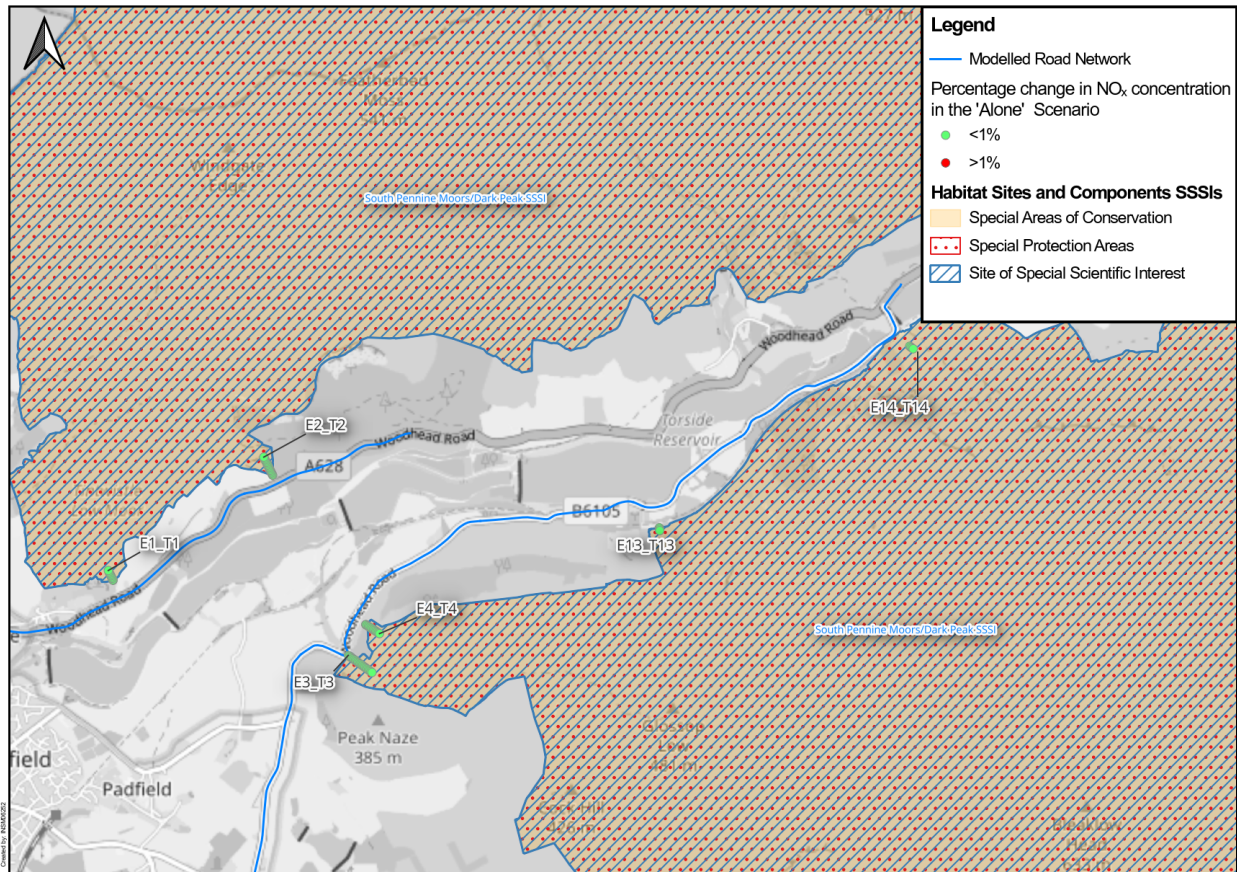


Figure 5-3- Percentage Change in NO_x Concentration at South Pennine Moors under the Local Plan 'Alone' Scenario

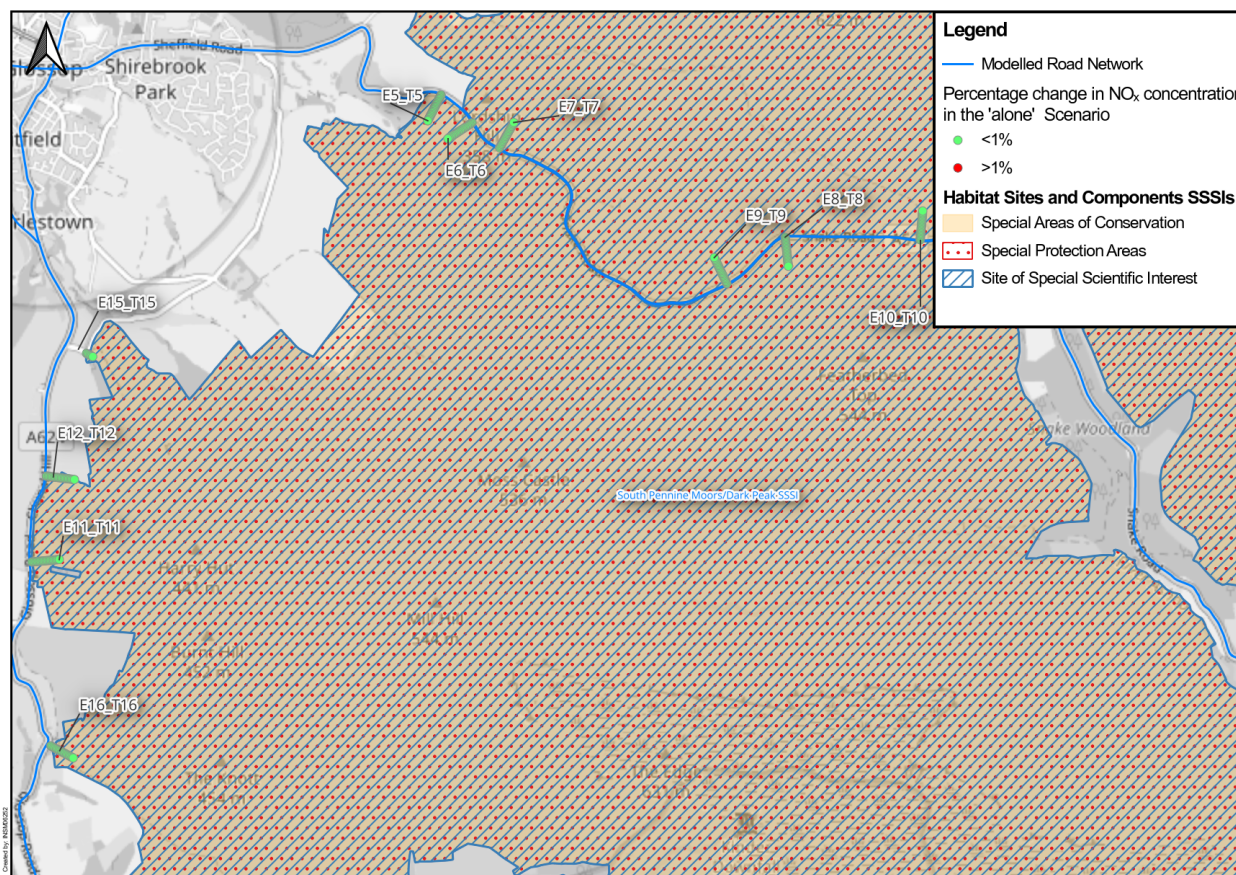


Figure 5-4 - Percentage Change in NO_x Concentration at South Pennine Moors under the Local Plan 'Alone' Scenario

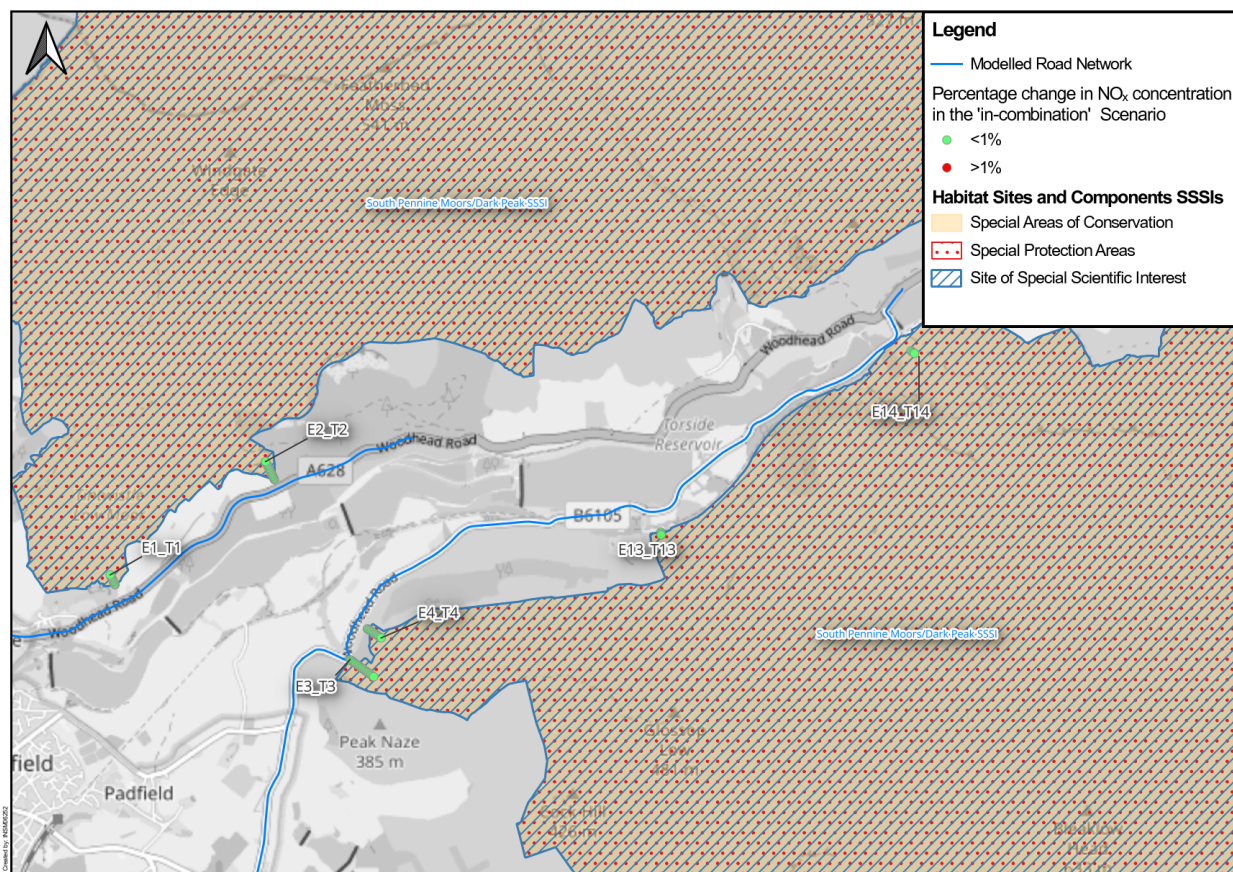


Figure 5-5- Percentage Change in NO_x Concentration at South Pennine Moors under the Local Plan 'In-Combination' Scenario

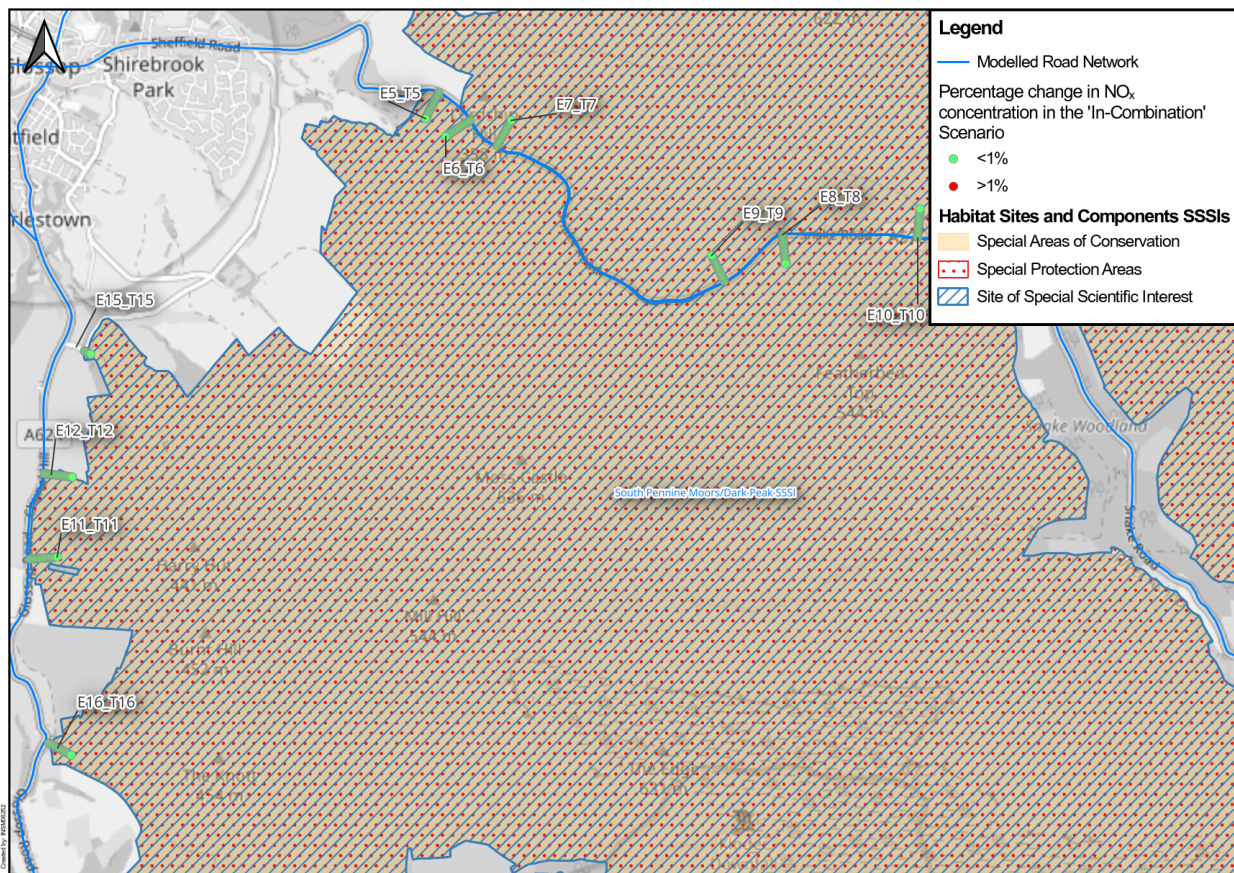


Figure 5-6 - Percentage Change in NO_x Concentration at South Pennine Moors under the Local Plan 'In-Combination' Scenario

AMBIENT NH₃

- 5.1.12 **Appendix H Table H-2** shows the model predicted changes in NH₃ concentrations at Identified Ecological Receptors as a result of the Local Plan both 'alone' and 'in-combination'. The results are summarised as follows:

Rochdale Canal SAC/ Rochdale Canal SSSI

- 5.1.13 Total NH₃ concentrations predicted at Rochdale Canal SAC/ Rochdale Canal SSSI show a mix of improvement and deterioration across the sites from the 2024 Baseline to the 2042 DS both 'alone' and 'in-combination'. There were exceedances of the lower CLe (3µg/m³) predicted at a few locations within these Sites.
- 5.1.14 In the 2042 'alone' and 'in-combination' scenario, the impact on NH₃ concentration is greater than 1% of the CLe within two transects, namely, E2_T4 and E2_T3. The variation in predicted changes in NH₃ concentration with increasing distance to road is shown in **Figure 5-7** for the 'alone' scenario and **Figure 5-8** for the 'in-combination' scenario.
- 5.1.15 The key results of the 2042 'alone' scenario are summarised below:
- The two transect identified above are located to the southern extent of Rochdale Canal SAC/SSSI and run westwards from Broadway Road into the site;

- For both transects, the NH₃ concentrations decrease exponentially with distance from the modelled road edge. The impact of the Local Plan is highly localised with changes above the 1% CLe screening threshold restricted to areas in the immediate vicinity of the road;
- For Transect E2_T4:
 - The maximum predicted total annual mean NH₃ concentration for the 2042 DS scenario is 6.04µg/m³;
 - The maximum impact is 0.05µg/m³ (1.8% of the lower CLe) at the site boundary (located 9m to road); and
 - The impact falls below the 1% threshold at 21m into the site.
- For Transect E2_T3:
 - The maximum predicted annual mean NH₃ concentrations for 2042 DS scenario is 5.98µg/m³;
 - The maximum impact is 0.05µg/m³ (1.8% of the lower CLe) at the site boundary (located 4.4m to road);
 - The impact remains above the 1% screening threshold across the entire transect, persisting to the other end of the site boundary (4.7m into the site).

5.1.16 The above exceedances are confined to a small area, occurring between 4.4m and 9.1m from Broadgate Road and between 9m and 20m from Broadway Road, measured to road.

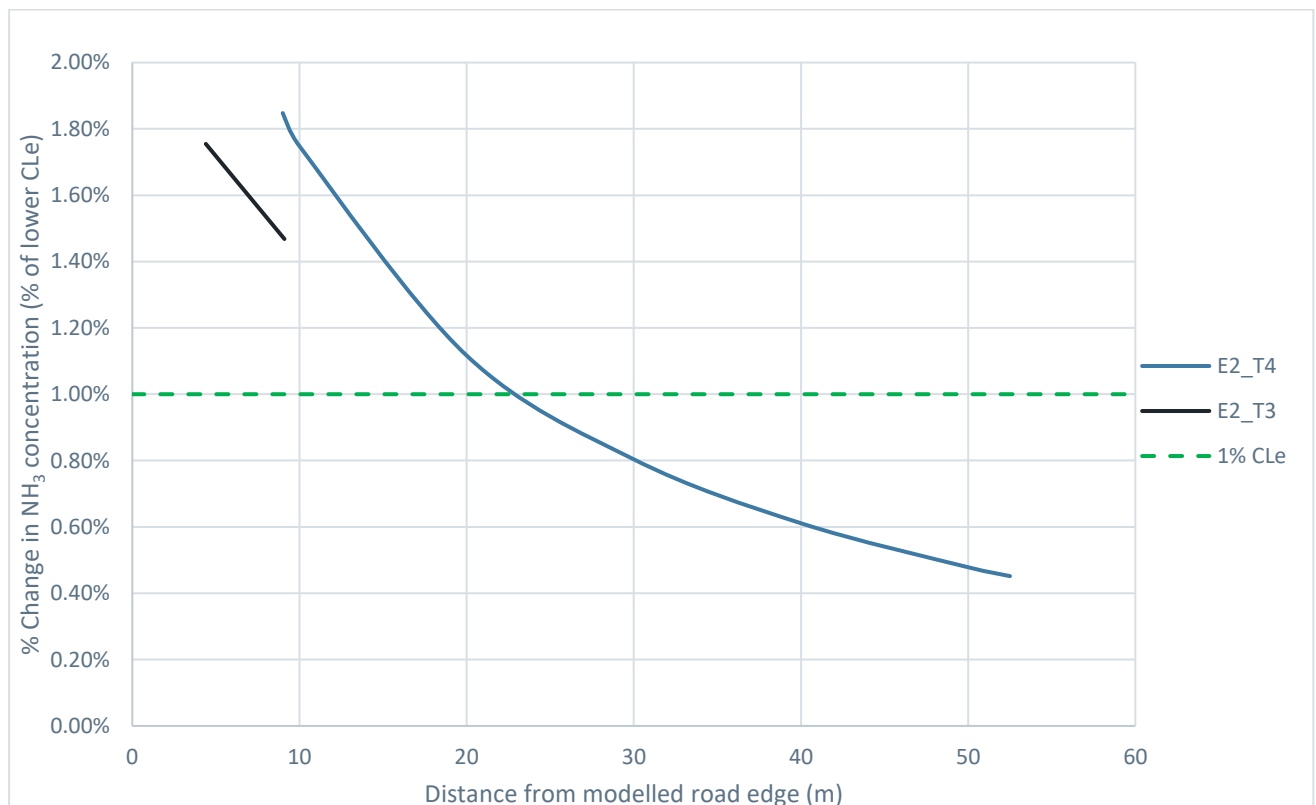


Figure 5-7 - Predicted Local Plan ‘alone’ scenario NH₃ concentrations, expressed as a % of the lower CLe, at receptors E2_T4 and E2_T3. The dashed green line indicates the 1% CLe screening threshold.

- 5.1.17 As shown in **Figure 5-7**, predicted Local Plan ‘alone’ scenario NH₃ concentrations exceed the 1% CLe screening threshold at receptors E2_T4 and E2_T3 closest to the road edge. Changes decrease with increasing distance and fall below the threshold at approximately 22m at receptor E2_T4.
- 5.1.18 The key results of the 2042 ‘in combination’ scenario are summarised below:
- The two transect identified above are located to the southern extent of Rochdale Canal SAC/SSSI and run westwards from Broadway Road into the site;
 - For both transects, the NH₃ concentrations decrease exponentially with distance from the modelled road edge. The impact of the Local Plan is highly localised with changes above the 1% CLe screening threshold restricted to areas in the immediate vicinity of the road;
 - For Transect E2_T4:
 - The maximum predicted total annual mean NH₃ concentration for the 2042 DS scenario is 6.04µg/m³;
 - The maximum impact is 0.06µg/m³ (1.9% of the lower CLe) at the site boundary (located 9m to road); and
 - The impact falls below the 1% threshold at 21m into the site.
 - For Transect E2_T3:
 - The maximum predicted annual mean NH₃ concentrations for 2042 DS scenario is 5.98µg/m³;
 - The maximum impact is 0.05µg/m³ (1.8% of the lower CLe) at the site boundary (located 4.4m to road);
 - The impact remains above the 1% screening threshold across the entire transect, persisting to the other end of the site boundary (4.7m into the site).

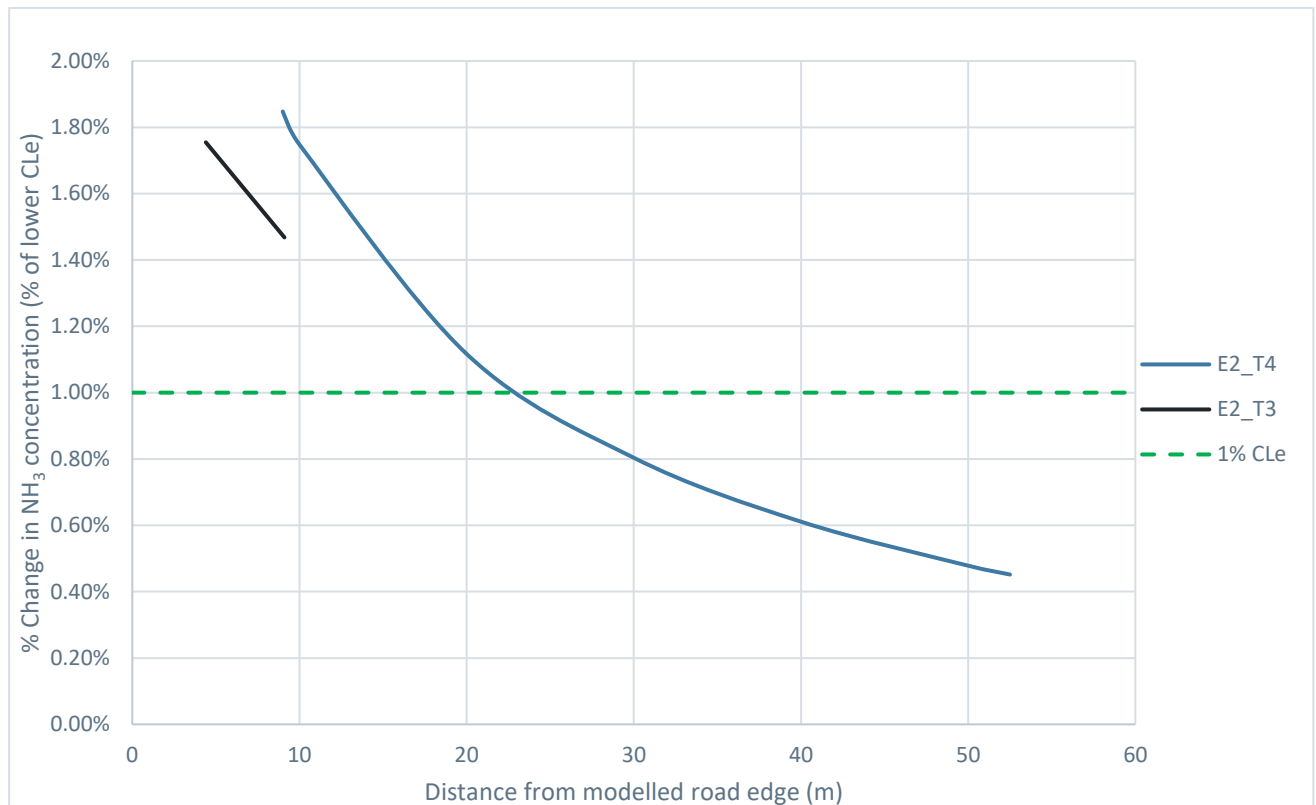


Figure 5-8 - Predicted Local Plan 'in-combination' scenario NH₃ concentrations, expressed as a % of the lower CLe, at receptors E2_T4 and E2_T3. The dashed green line indicates the 1% CLe screening threshold.

- 5.1.19 As shown in **Figure 5-8**, predicted Local Plan 'in-combination' scenario NH₃ concentrations exceed the 1% CLe screening threshold at receptors E2_T4 and E2_T3 closest to the road edge. Changes decrease with increasing distance and fall below the threshold at approximately 22m at receptor E2_T4.
- 5.1.20 The 'alone' and 'in-combination' scenarios both demonstrate improvements at a number of Identified Ecological Receptors, with slight beneficial to beneficial impacts observed across the study area. The greatest improvement at E4_T2 was -0.3% of the lower CLe in the 'alone' scenario and -1.2% of the lower CLe in the 'in-combination' scenario, respectively.
- 5.1.21 In addition, the Stockport Local Plan contains policies that seek to improve air quality, minimise pollution emissions and promote sustainable transport choices
- 5.1.22 Overall, since the impact on NH₃ concentration exceeds 1% lower CLe threshold for the both 'alone' (see **Figure 5-9**) and 'in-combination' (see **Figure 5-10**) scenario, the results have been provided to the Project Ecologist for the judgement of overall significance.

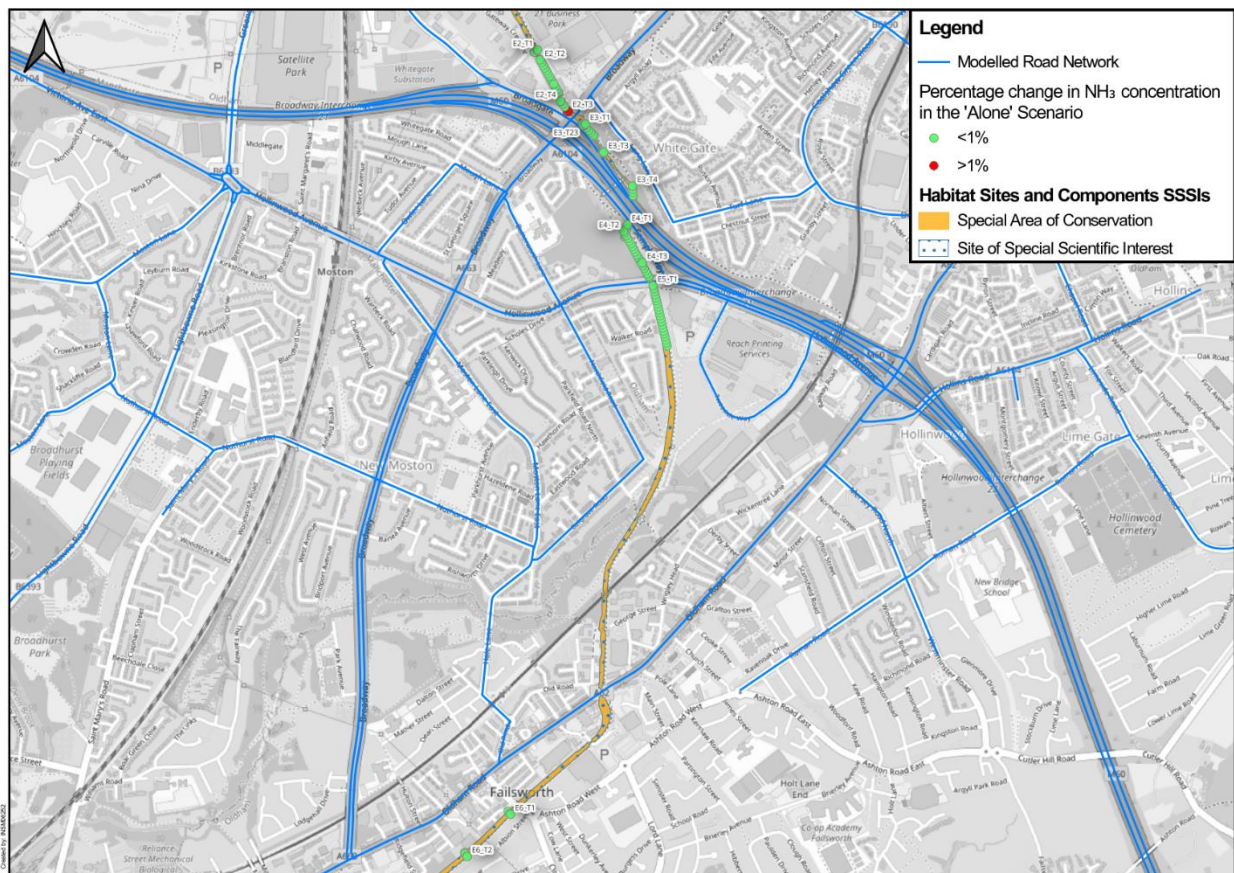


Figure 5-9- Local Plan 'alone' NH_3 above 1% of CLe at Rochdale Canal

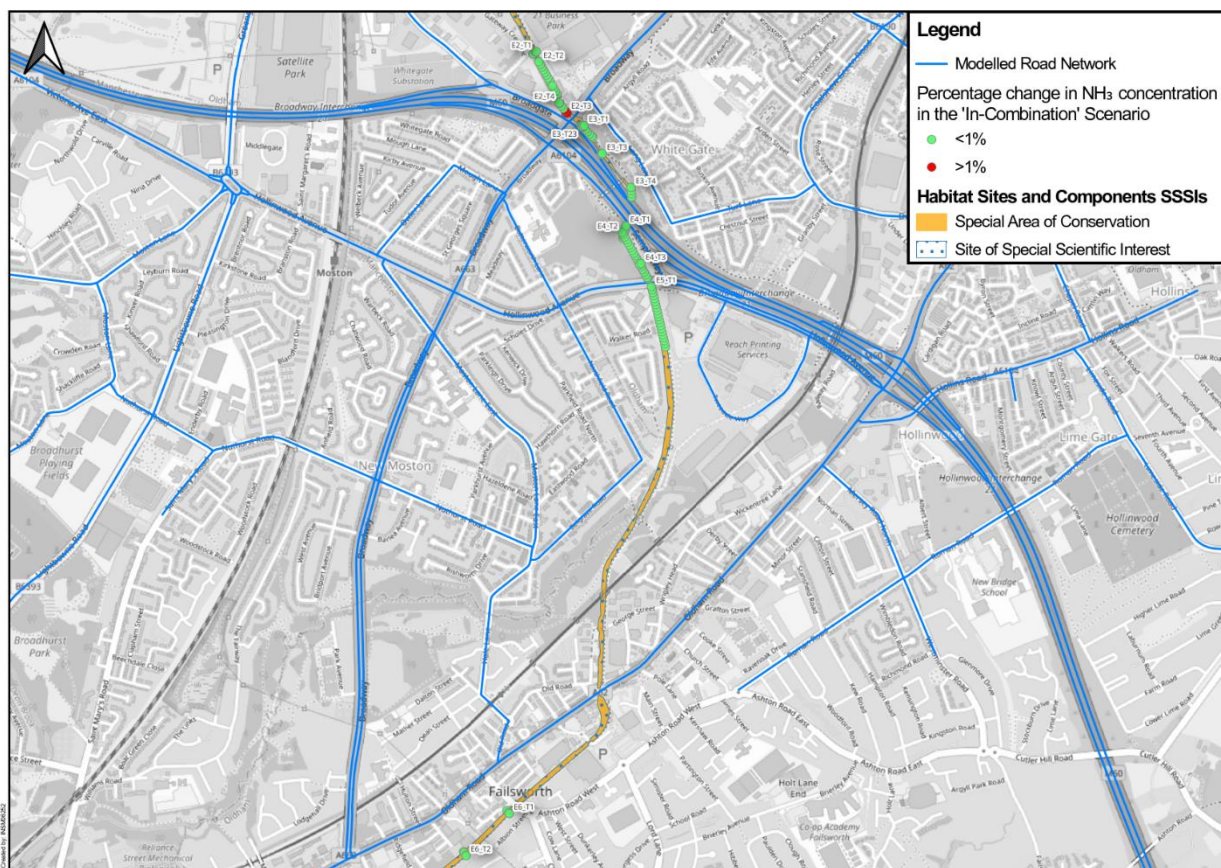


Figure 5-10 - Local Plan 'in-combination' NH₃ above 1% of CLe at Rochdale Canal South Pennine Moors SAC/Peak District Moors (South Pennine Moors Phase 1) SPA/Dark Peak SSSI

- 5.1.23 Total NH₃ concentrations predicted at South Pennine Moors SAC/Peak District Moors (South Pennine Moors Phase 1) SPA/Dark Peak SSSI shows a mix of improvement and deterioration across the sites from the 2024 Baseline to the 2042 DS both 'alone' and 'in-combination'.
- 5.1.24 In the 2042 DS 'alone' scenario, the maximum predicted change of NH₃ concentration is 0.01µg/m³ (0.6% of the lower CLe) at receptor E12_T12, at the site boundary (located 5.7m to road). The corresponding total annual mean NH₃ concentrations are 1.50µg/m³ and 1.51µg/m³ for the 2042 DM and DS scenarios, respectively. The predicted concentrations at ecological receptors exceed the annual mean Critical Level of 1µg/m³ but there are no increases above 1% of lower CLe.
- 5.1.25 In the 2042 'in-combination' scenario, impact on NH₃ concentration exceeds 1% lower CLe threshold are predicted at three receptor locations E12_T12, E11_T11 and E16_T16. The variation in predicted changes in NH₃ contributions with distance to road is shown in **Figure 5-11**. The key results are summarised below:
- The CLo of 1kg N/ha/yr for South Pennine Moors SAC/Peak District Moors (South Pennine Moors Phase 1) SPA/Dark Peak SSSI is exceeded at background level in some parts of the site;
 - The three transect identified above are located to the western extent of South Pennine Moors SAC/Peak District Moors (South Pennine Moors Phase 1) SPA/Dark Peak SSSI. Each transect

runs eastwards from the A624 (Glossop Road) into the site. For all three transects, the NH_3 concentrations decrease exponentially with distance from the modelled road edge. The impact of the Local Plan is highly localised with changes above the 1% CLe screening threshold restricted to areas in the immediate vicinity of the road;

- For transect E12_T12:
 - The maximum predicted total NH_3 concentration for 2042 DS scenario is $1.5\mu\text{g}/\text{m}^3$;
 - The maximum impact is $0.04\mu\text{g}/\text{m}^3$ (4.3% of the lower CLe) at the site boundary (located 5.7m to road); and
 - The impact falls below the 1% threshold at 44.3m into the site.
- For Transect E11_T11:
 - The maximum predicted total NH_3 concentration for 2042 DS scenario is $1.4\mu\text{g}/\text{m}^3$;
 - The maximum impact is $0.03\mu\text{g}/\text{m}^3$ (3.0% of the lower CLe) at the site boundary (located 12m to road); and
 - The impact falls below the 1% threshold at 48.1m into the site.
- For Transect E16_T16:
 - The maximum predicted total NH_3 concentration for 2042 scenario is $1.2\mu\text{g}/\text{m}^3$;
 - The maximum impact is $0.01\mu\text{g}/\text{m}^3$ (1.3% of the lower CLe) at the site boundary (located 25.3m to road); and
 - The impact falls below 1% threshold 14.7m into the site.

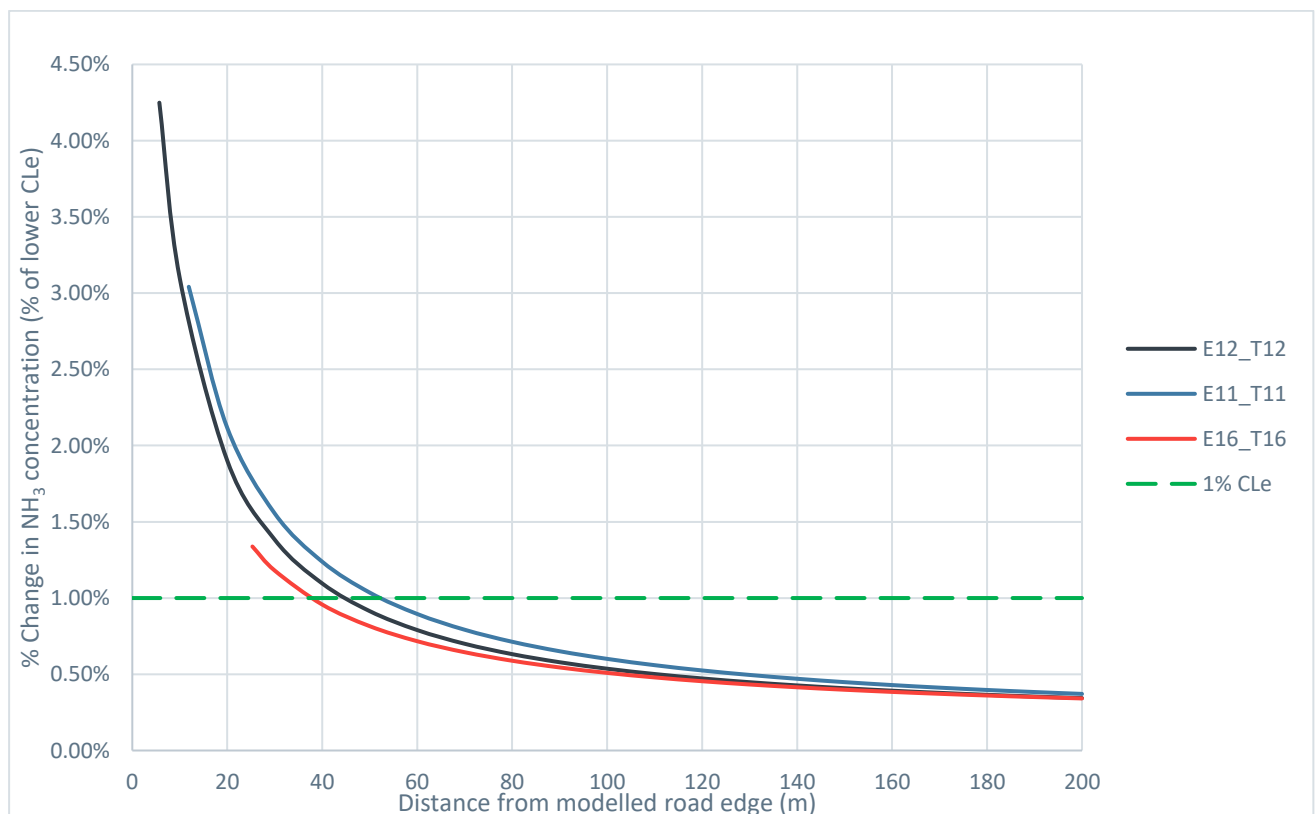


Figure 5-11 - Predicted Local Plan ‘in-combination’ scenario NH₃ concentration, expressed as a % of the lower CLe, at receptors E12_T12, E11_T11 and E16_T16. The dashed green line indicates the 1% CLe screening threshold.

- 5.1.26 As shown in **Figure 5-11**, predicted Local Plan ‘in-combination’ scenario NH₃ concentration decreases rapidly with increasing distance to road and fall below the 1% CLe screening threshold at approximately 50m for receptors E12_T12 and E11_T11 and 40m for receptor E16_T16.
- 5.1.27 For all modelled receptors in the ‘alone’ scenario, changes are below 1% of the respective critical load (see **Figure 5-12** and **Figure 5-13**). The NH₃ concentration impacts for the ‘in-combination’ scenario (see **Figure 5-14** and **Figure 5-15**) are greater than 1% of the lower CLo for three transects. These results have been provided to the Project Ecologist to determine the overall ecological significance.

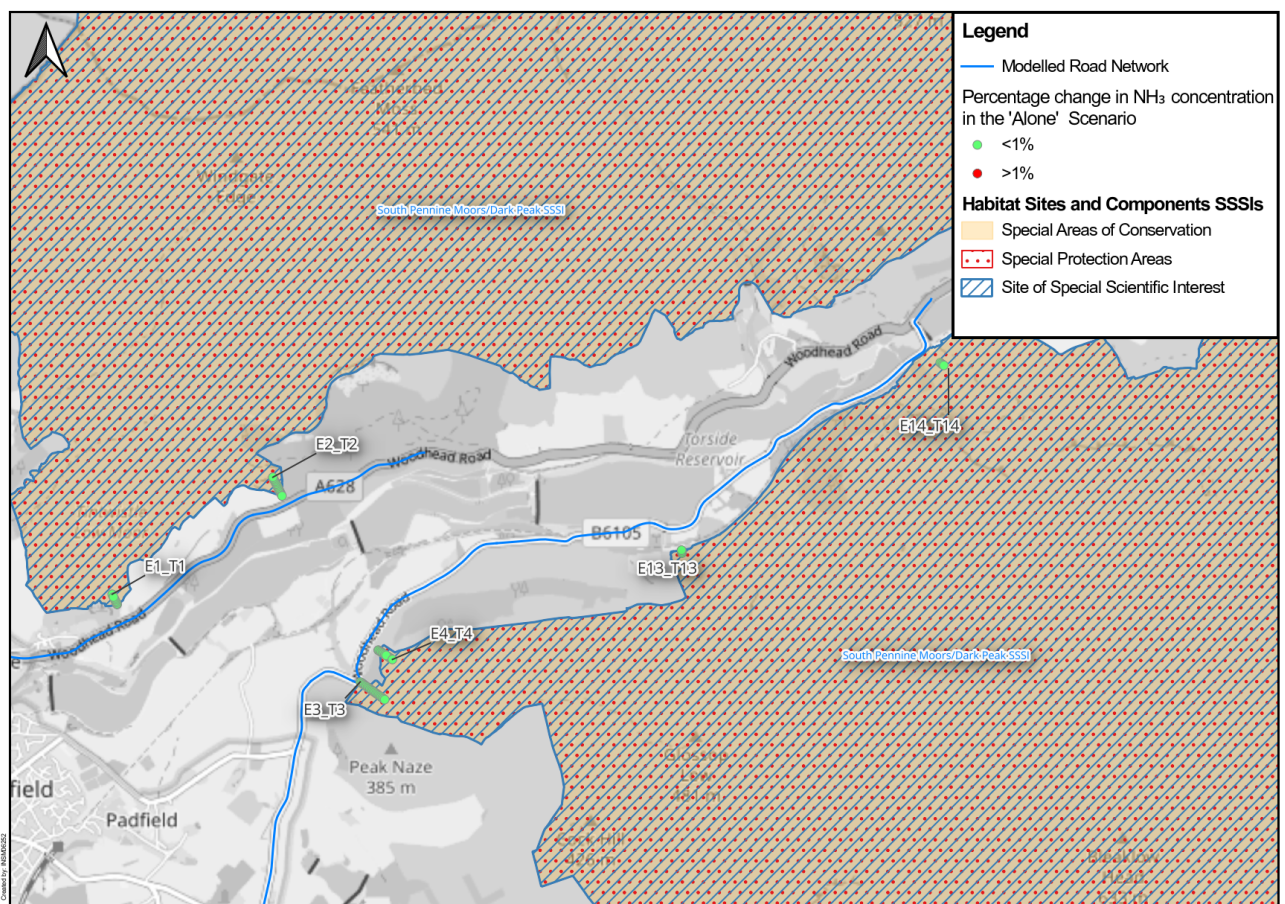


Figure 5-12- Local Plan ‘alone’ NH₃ above 1% of CLe at South Pennine Moors

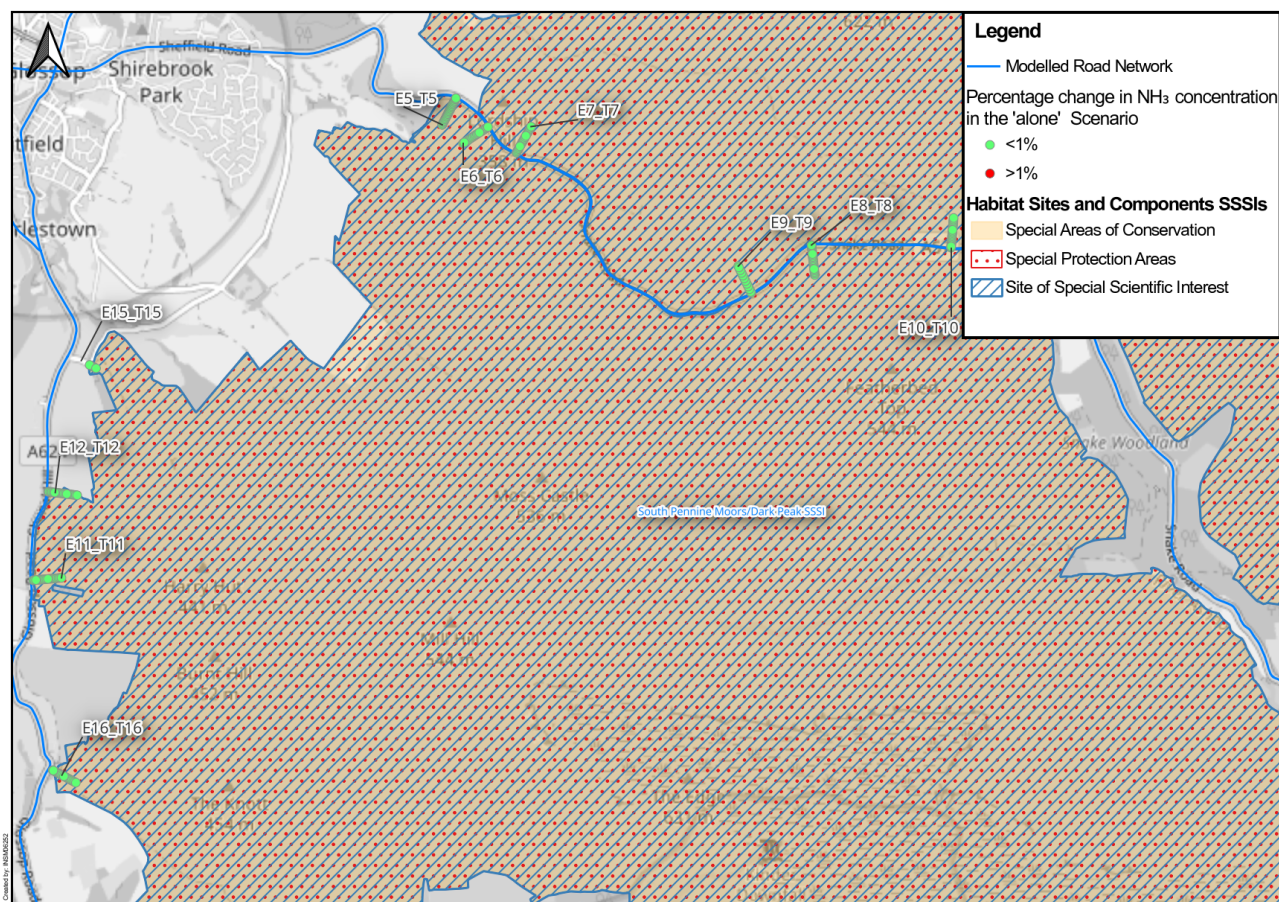


Figure 5-13 - Local Plan 'alone' NH_3 above 1% of CLe at South Pennine Moors

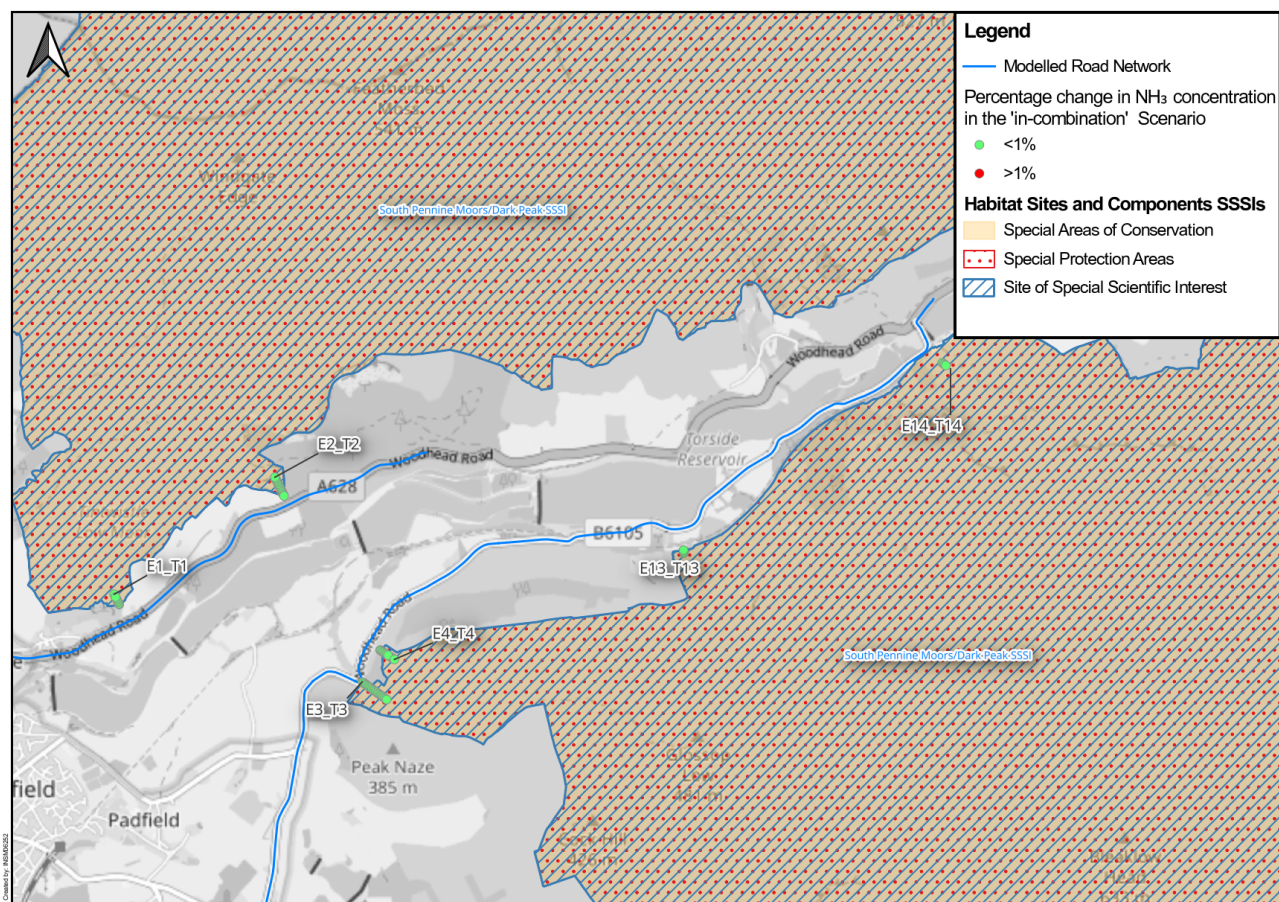


Figure 5-14 - Local Plan 'in-combination' NH_3 above 1% of CLe at South Pennine Moors

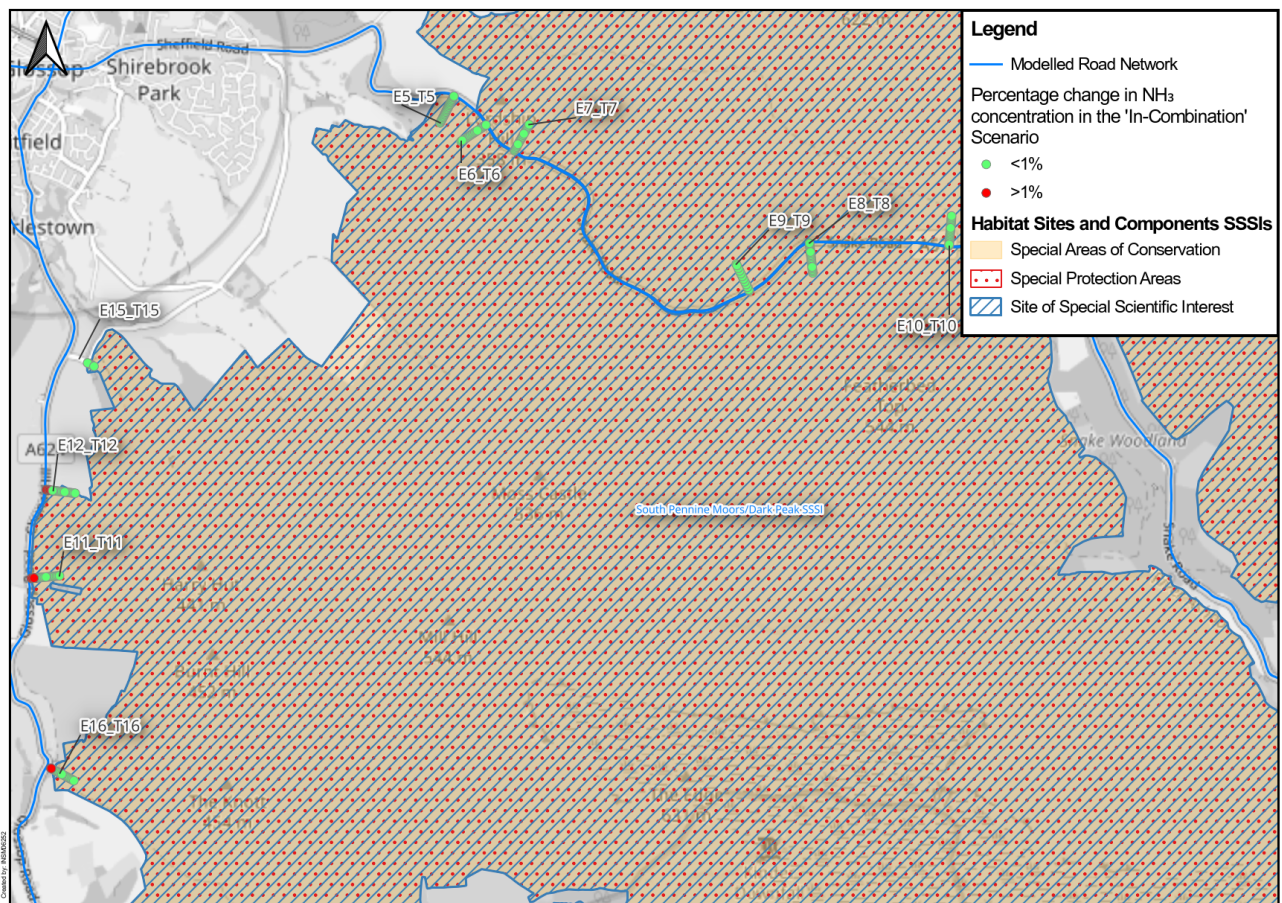


Figure 5-15- Local Plan ‘in-combination’ NH₃ above 1% of CLe at South Pennine Moors

NITROGEN DEPOSITION

5.1.28 **Appendix H Table H-3** shows the results of the predictions of changes in the rate of N deposition at European Sites as a result of the Local Plan. The results are summarised as follows:

Rochdale Canal SAC/ Rochdale Canal SSSI

5.1.29 Total N deposition predicted at the Rochdale Canal SAC/ Rochdale Canal SSSI shows an improvement across the sites from the 2024 Baseline to the 2042 DS, both ‘alone’ and ‘in-combination’. However, as background N deposition rates already exceeded the applicable lower CLo in the 2024 Baseline and 2042 DS, total predicted N deposition rates associated with the Local Plan, under the both ‘alone’ and ‘in-combination’ scenarios, also exceed the lower CLo.

5.1.30 In the 2042 ‘alone’ scenario, the impact on N deposition is greater than 1% of the lower CLo within three modelled transect, namely, E2_T4, E2_T3 and E2_T2, as shown in **Figure 5-16**. The variation in predicted changes in N deposition with distance to road is shown in **Figure 5-17**. The key results are summarised below:

- The CLo of 2kg N/ha/yr for Rochdale Canal SAC/SSSI is exceeded at background level. That is to say that all modelled transects exceed the CLo in all modelled scenarios (with and without Local Plan);

- The three transect identified above are located to the southern extent of Rochdale Canal SAC/SSSI. E2_T4 and E2_T2 transects run westwards from Broadway Road into the site. E2_T3 transect runs eastwards from Broadgate into the site.
- For all three transects, the nitrogen deposition rates decrease exponentially with distance from the modelled road edge. The impact of the Local Plan is highly localised with changes above the 1% CLo screening threshold restricted to areas in the immediate vicinity of the road;
- For transect E2_T4:
 - The maximum predicted annual mean N deposition for the 2042 DS scenario is 38.06kg N/ha/yr;
 - The maximum impact is 0.26kg N/ha/yr (13.0% of the lower CLo) at the site boundary (located 9m to road); and
 - The impact remains above the 1% screening threshold for the entire transect, terminating at 43.5m into the site (52.5m from the road edge). Beyond this point, the site boundary restarts following a gap in site is present. The rest of the site is covered by transect E2_T2.
- For transect E2_T2:
 - The maximum predicted annual mean N deposition for the 2042 DS scenario is 22.09kg N/ha/yr;
 - The maximum impact is 0.04kg N/ha/yr (2.2% of the lower CLo) at the site boundary (located 78m to road); and
 - The impact falls below the 1% threshold at 62m into the site.
- For transect E2_T3:
 - The maximum predicted annual mean N deposition for 2042 DS scenario is 37.74kg N/ha/yr;
 - The maximum impact is 0.25kg N/ha/yr (12.5% of the lower CLo) at the site boundary (located 4.4m to road); and
 - The impact remains above the 1% screening threshold across the entire transect, persisting to the other end of the site boundary (4.7m into the site).

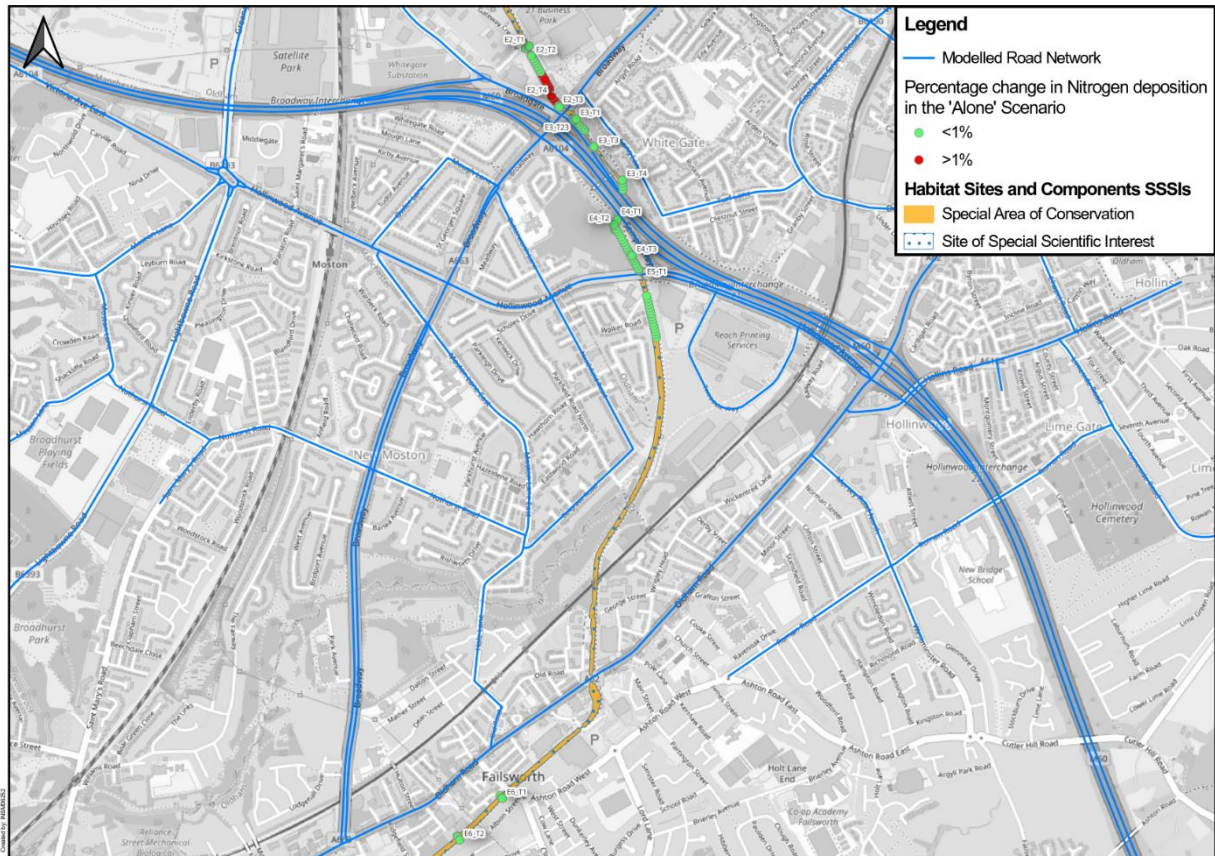


Figure 5-16- Local Plan 'alone' N deposition above 1% of CLo at Rochdale Canal

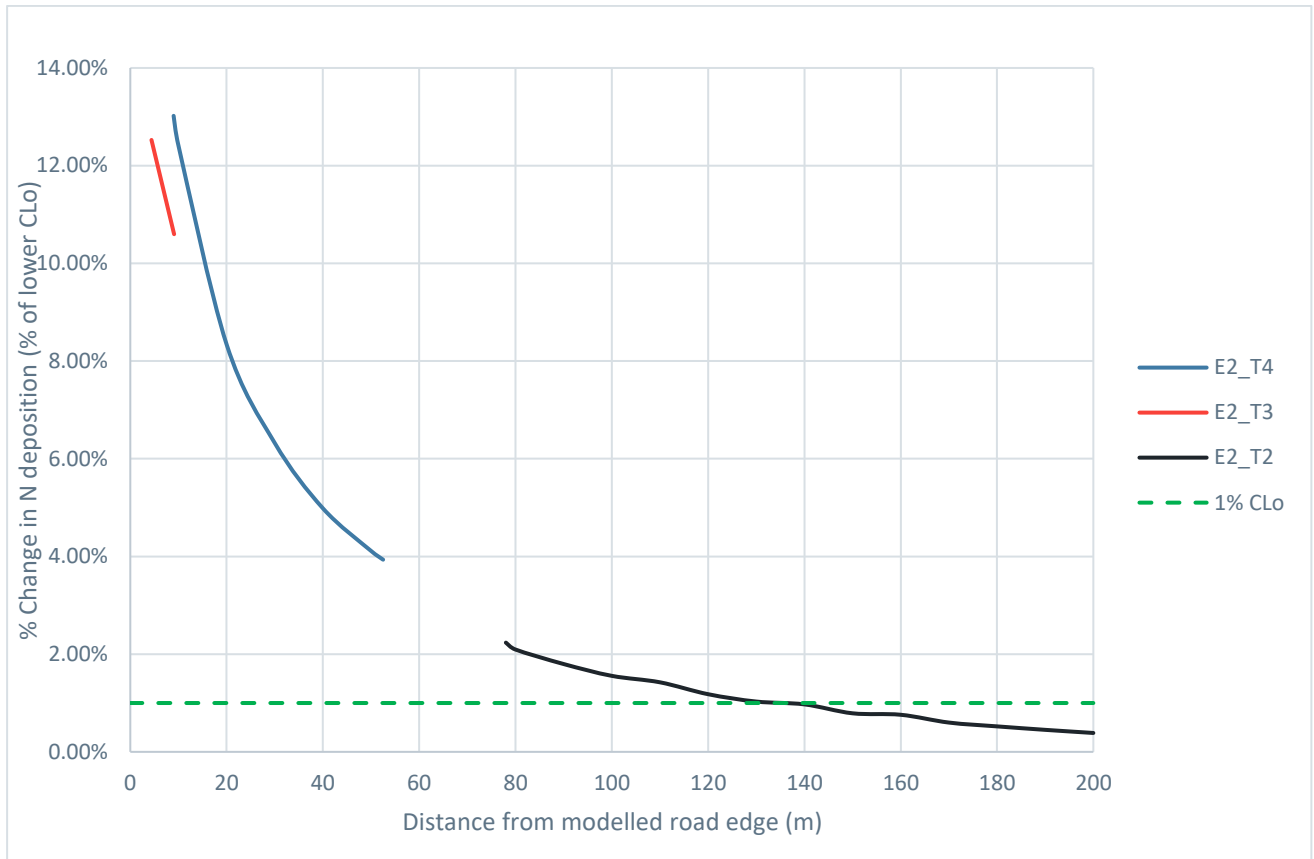


Figure 5-17 - Predicted Local Plan ‘alone’ scenario N deposition, expressed as a % of the lower CLo, at receptors E2_T4, E2_T3 and E2_T2. The dashed green line indicates the 1% CLo screening threshold.

- 5.1.31 As shown in **Figure 5-17**, the impacts above 1% screening threshold are confined to a small area, occurring between 4.4m and 9.1m from Broadgate Road and between 9m and 160m from Broadway Road, measured to road.
- 5.1.32 In the 2042 ‘in combination’ scenario, the impact on N deposition is greater than 1% of the lower CLo within five modelled transect, namely, E2_T4, E2_T3, E3_T4, E3_T3 and E2_T2, as shown in **Figure 5-18**. The variation in predicted changes in N deposition with distance to road is shown in **Figure 5-19**. The key results are summarised below:
- The CLo of 2kg N/ha/yr for Rochdale Canal SAC/SSSI is exceeded at background level. That is to say that all modelled transects exceed the CLo in all modelled scenarios (with and without Local Plan);
 - The five transect identified above are located to the southern extent of Rochdale Canal SAC/SSSI. E2_T4 and E2_T2 transects run westwards from Broadway Road into the site. E2_T3 transect runs eastwards from Broadgate into the site. E3_T3 transect runs eastwards from the slip road connecting to the M60 (Manchester Outer Ring Road), while E3_T4 transect runs eastwards from the M60 (Manchester Outer Ring Road);
 - For all five transects, the nitrogen deposition rates decrease exponentially with distance from the modelled road edge. The impact of the Local Plan is highly localised with changes above the 1% CLo screening threshold restricted to areas in the immediate vicinity of the road;

- For transect E2_T4:
 - The maximum predicted annual mean N deposition for the 2042 DS scenario is 38.06kg N/ha/yr;
 - The maximum impact is 0.27kg N/ha/yr (13.4% of the lower CLo) at the site boundary (located 9m to road); and
 - The impact remains above the 1% screening threshold for the entire transect, terminating at 43.5m into the site (52.5m from the road edge). Beyond this point, the site boundary restarts following a gap in site is present. The rest of the site is covered by transect E2_T2.
- For transect E2_T2:
 - The maximum predicted annual mean N deposition for the 2042 DS scenario is 22.09kg N/ha/yr;
 - The maximum impact is 0.02kg N/ha/yr (1.0% of the lower CLo) at the site boundary (located 78m to road); and
 - The impact falls below the 1% threshold at 2m into the site.
- For transect E2_T3:
 - The maximum predicted annual mean N deposition for 2042 DS scenario is 37.74kg N/ha/yr;
 - The maximum impact is 0.25kg N/ha/yr (12.7% of the lower CLo) at the site boundary (located 4.4m to road); and
 - The impact remains above the 1% screening threshold across the entire transect, persisting to the other end of the site boundary (4.7m into the site).
- For transect E3_T4:
 - The maximum predicted annual mean N deposition for 2042 DS scenario is 33.01kg N/ha/yr;
 - The maximum impact is 0.04kg N/ha/yr (2.2% of the lower CLo) at the site boundary (located 17m to road); and
 - The impact falls below the 1% threshold at 17m into the site
- For transect E3_T3:
 - the maximum predicted annual mean N deposition for 2042 DS scenario is 29.46kg N/ha/yr;
 - The maximum impact is 0.02kg N/ha/yr (1.2% of the lower CLo) at the site boundary (located 6.7m to road); and
 - The impact remains above the 1% screening threshold which continue for up to 3.3m into the site (located 10m to road).

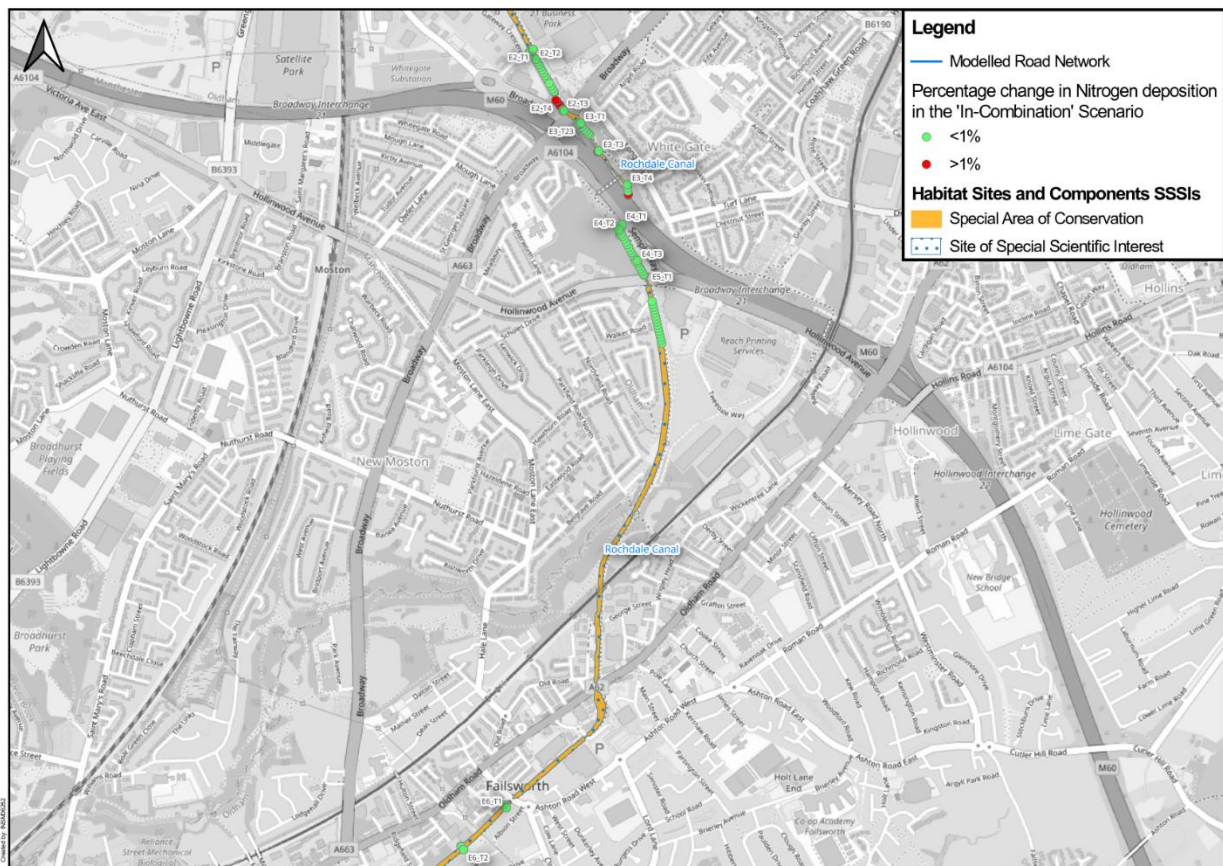


Figure 5-18 - Local Plan 'in-combination' N deposition above 1% of CLo at Rochdale Canal

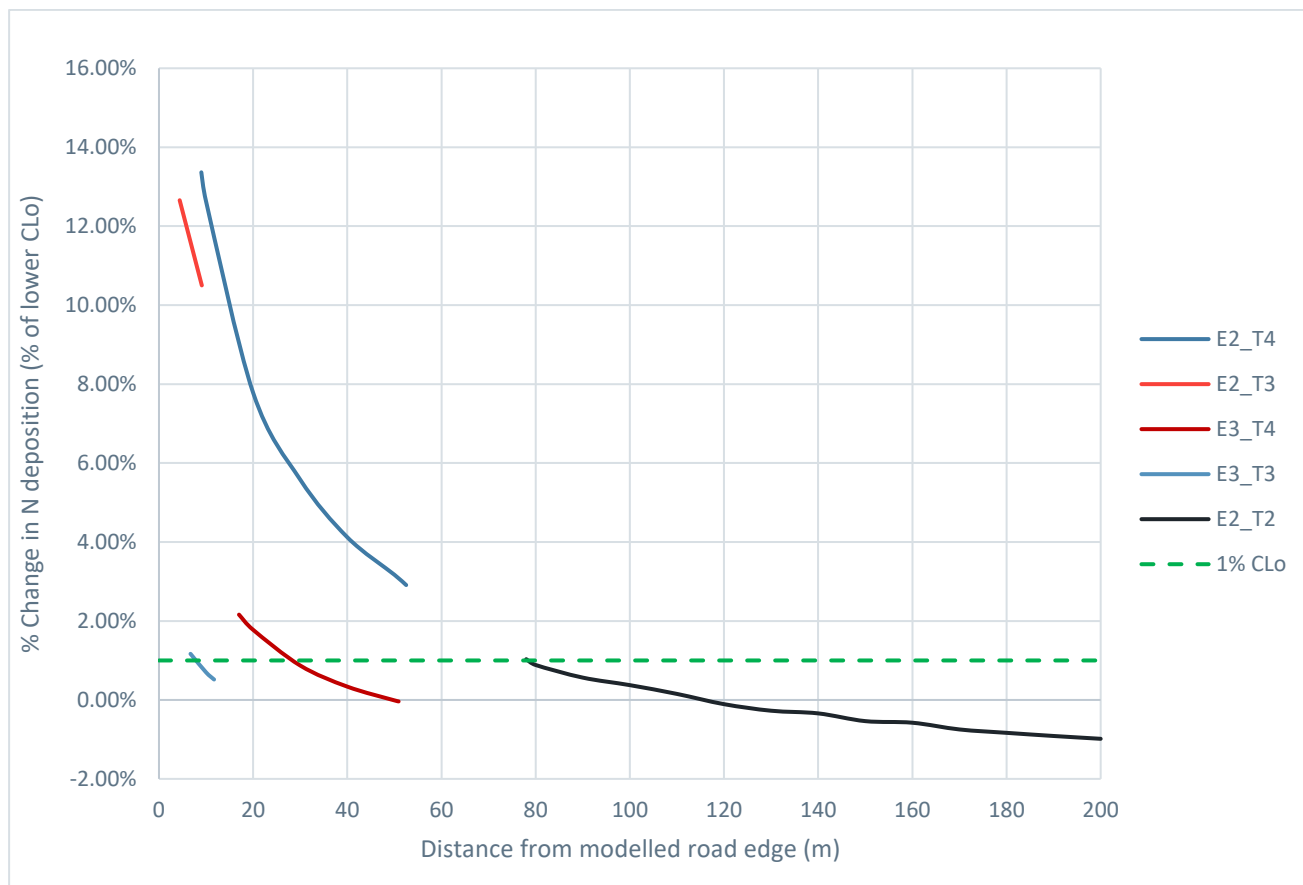


Figure 5-19 - Predicted Local Plan 'in-combination' scenario N deposition, expressed as a % of the lower CLo, at receptors E2_T4, E2_T3, E3_T4, E3_T3 and E2_T2. The dashed green line indicates the 1% CLo screening threshold.

- 5.1.33 The varying lengths of the lines presented in **Figure 5-19**, reflect the differing extents of the modelled receptor transects. Each transect extends only across the available area of designated habitat and, therefore, results are presented only for the distances represented by the defined receptor points, as shown in **Figure 5-18**.
- 5.1.34 The 'alone' and 'in-combination' scenarios both demonstrate improvements at a number of Identified Ecological Receptors, with slight beneficial to beneficial impacts observed across the study area. The greatest improvement at E4_T2 was -15.2% of the lower CLe in the 'alone' scenario and -3.5% of the lower CLe in the 'in-combination' scenario, respectively.
- 5.1.35 Total predicted deposition impacts for both the 'alone' and 'in-combination' scenarios are greater than 1% of the lower CLo at three and five transects, respectively. These results have been provided to the Project Ecologist to determine the overall ecological significance.

South Pennine Moors SAC/Peak District Moors (South Pennine Moors Phase 1) SPA/Dark Peak SSSI

- 5.1.36 Total N deposition predicted at the South Pennine Moors SAC/Peak District Moors (South Pennine Moors Phase 1) SPA/Dark Peak SSSI shows an improvement across the sites from the 2024 Baseline to the 2042 DS both 'alone' and 'in-combination'. Since background N deposition rates are

already exceeding the applicable lower CLo in the 2024 Baseline and 2042 DS, total predicted N deposition rates assessed for the Local Plan both 'alone' and 'in-combination' exceed the lower CLo.

- 5.1.37 The principal habitat is shrub vegetation, where exceedances have been identified and, therefore, the results for short vegetation are presented and discussed below.
- 5.1.38 In the 2042 'alone' scenario, the maximum change in the predicted annual mean N deposition at receptor E12_T12 is 0.03kg N/ha/yr (0.6% of the lower CLo) observed at the site boundary (located 6m to road) and all modelled receptors are below 1% of the respective critical load (**Figure 5-20**). The corresponding total annual mean N deposition are 16.89kg N/ha/yr and 16.92kg N/ha/yr for the 2042 DM and DS scenarios, respectively.

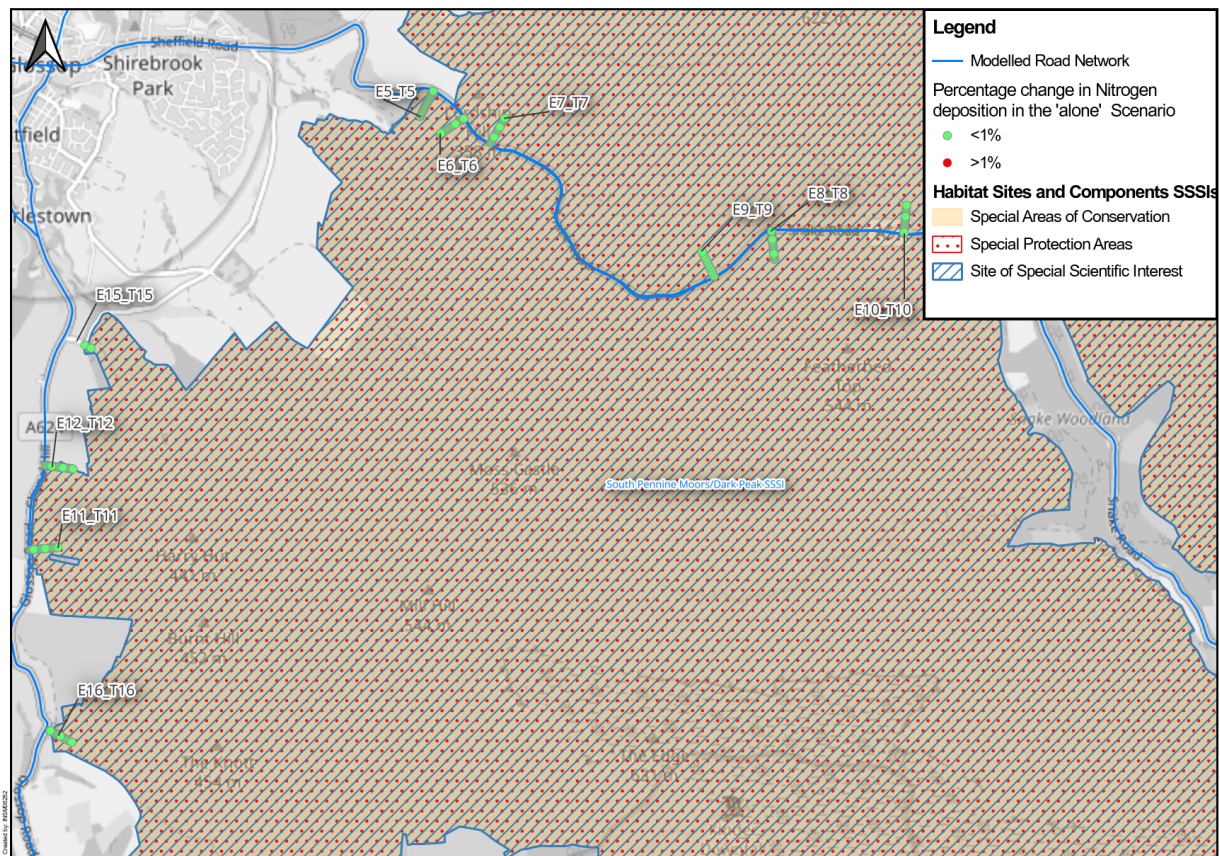


Figure 5-20- Percentage Change in N deposition at South Pennine Moors under the Local Plan 'Alone' Scenario

- 5.1.39 In the 2042 'in-combination' scenario, the impact on N deposition is greater than 1% of the lower CLo within three modelled transect, namely, E12_T12, E11_T11 and E16_T16 (**Figure 5-21** and **Figure 5-22**). The variation in predicted contributions with distance to road is shown in **Figure 5-23**. The key results are summarised below:
- The CLo of 5kg N/ha/yr for South Pennine Moors SAC/Peak District Moors (South Pennine Moors Phase 1) SPA/Dark Peak SSSI is exceeded at background level. That is to say that all modelled transects exceed the CLo in all modelled scenarios (with and without Local Plan);
 - The three transect identified above are located to the western extent of South Pennie Moors SAC. Each transect runs eastwards from the A624 (Glossop Road) into the site. For all three

transects, the nitrogen deposition rates decrease exponentially with distance from the modelled road edge. The impact of the Local Plan is highly localised with changes above the 1% CLo screening threshold restricted to areas in the immediate vicinity of the road;

- For transect E12_T12:
 - The maximum predicted annual mean N deposition for the 2042 DS scenario is 16.9kg N/ha/yr;
 - The maximum impact is 0.22kg N/ha/yr (4.5% of the lower CLo) at the site boundary (located 5.7m to road);
 - The impact falls below the 1% threshold at 44.3m into the site.
- For transect E11_T11:
 - The maximum predicted annual mean N deposition for the 2042 DS scenario is 16.1kg N/ha/yr;
 - The maximum impact is 0.16kg N/ha/yr (3.2% of the lower CLo) at the site boundary (located 12m to road);
 - The impact falls below the 1% threshold at 48.0m into the site.
- For Transect E16_T16:
 - The maximum predicted annual mean N deposition for the 2042 DS scenario is 14.9kg N/ha/yr;
 - The maximum impact is 0.07kg N/ha/yr (1.4% of the lower CLo) at the site boundary (located 25.3m to road);
 - The impact falls below the 1% threshold at 24.7m into the site.

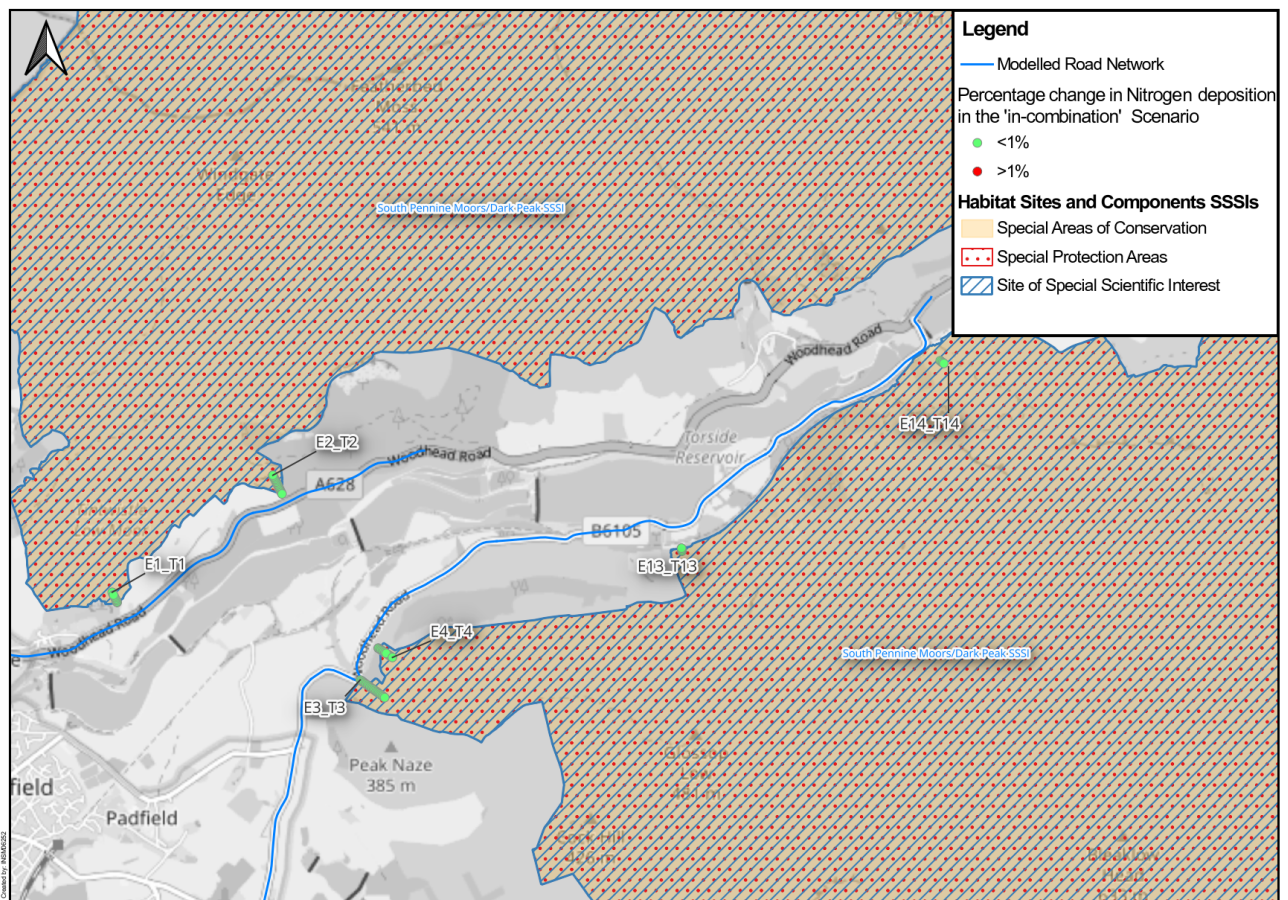


Figure 5-21- Percentage Change in N deposition at South Pennine Moors under the Local Plan 'In-combination' Scenario

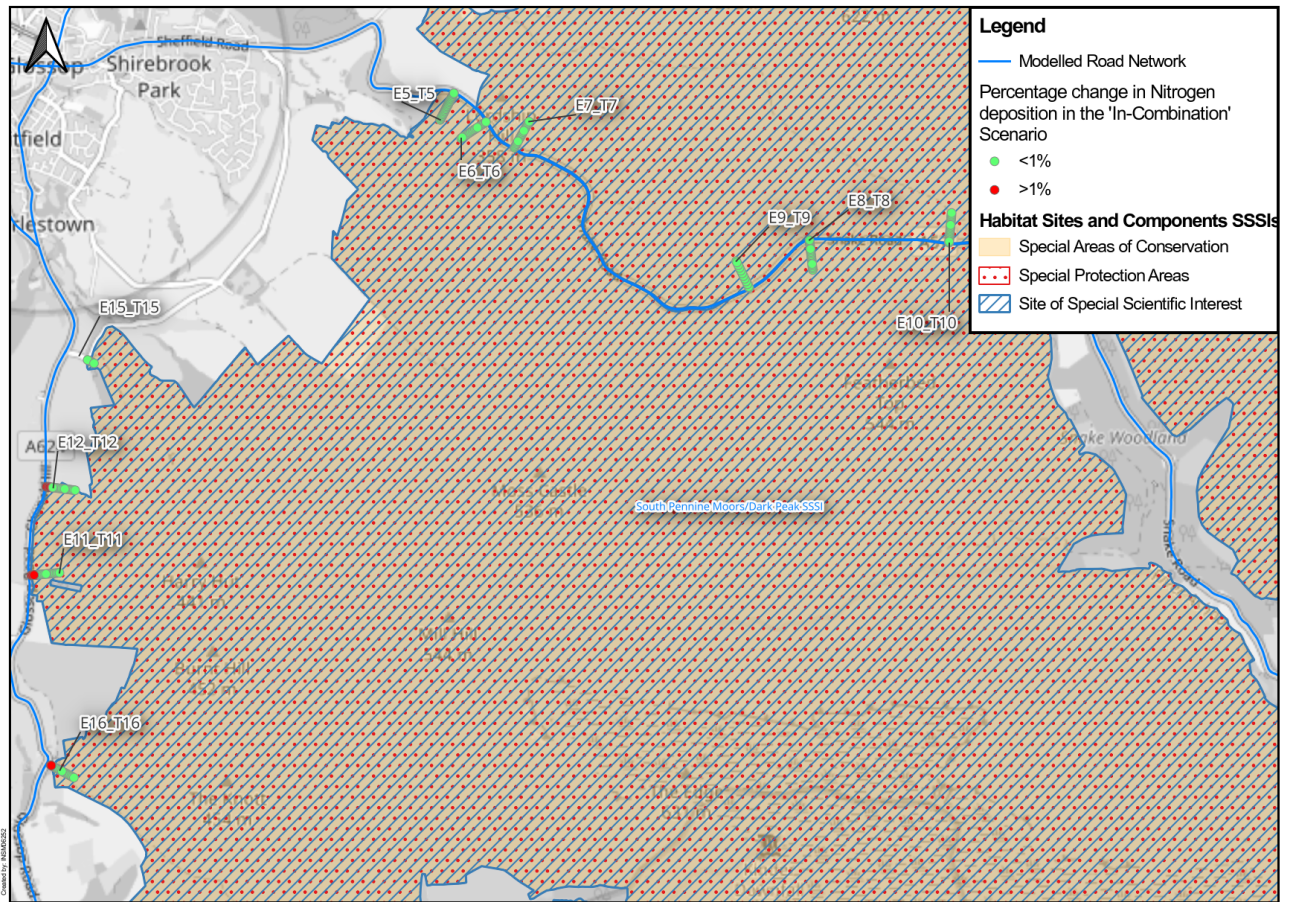


Figure 5-22- Percentage Change in N deposition at South Pennine Moors under the Local Plan 'in-combination' Scenario

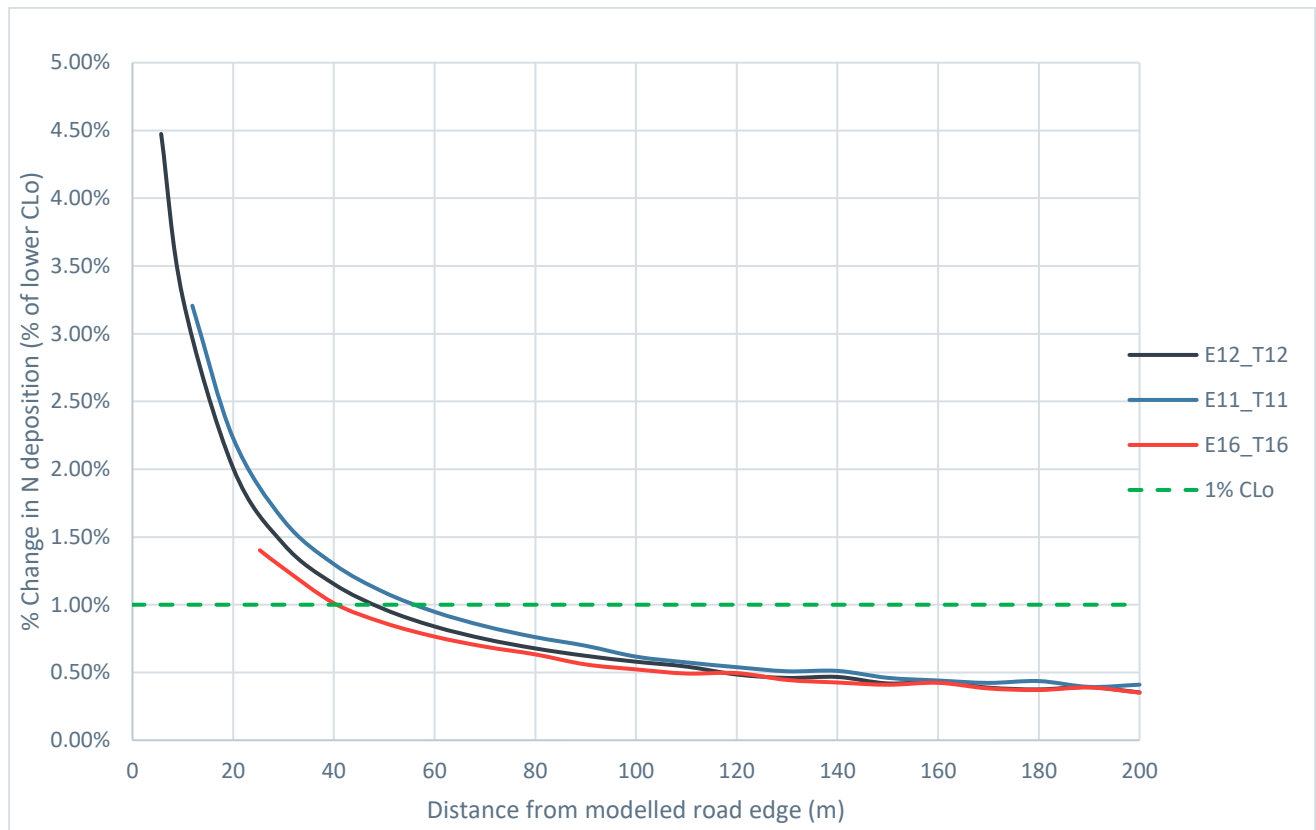


Figure 5-23 - Predicted Local Plan ‘in-combination’ N deposition, expressed as a % of the lower CLo, at receptors E12_T12, E11_T11 and E16_T16. The dashed green line indicates the 1% CLo screening threshold.

- 5.1.40 For all modelled receptors in the ‘alone’ scenario, changes are below 1% of the respective critical load (**Figure 5-20**). The N deposition impacts for the ‘in-combination’ scenario (see **Figure 5-21** and **Figure 5-22**) are greater than 1% of the lower CLo for three transects. These results have been provided to the Project Ecologist to determine the overall ecological significance.
- 5.1.41 The Stockport Local Plan contains policies that seek to improve air quality, minimise pollution emissions and promote sustainable transport choices. This contributes to the wider ongoing reductions in UK road vehicle fleet emissions. Overall, background N deposition levels are expected to improve over time.

ACID DEPOSITION

- 5.1.42 **Appendix H Table H-3** shows the results of the predictions of changes in the rate of Acid deposition at Habitat Sites as a result of the Local Plan. The results are summarised as follows:

Rochdale Canal SAC/ Rochdale Canal SSSI

- 5.1.43 Total acid N deposition predicted across the Rochdale Canal SAC/ Rochdale Canal SSSI demonstrates an improvement from the 2024 Baseline to the 2042 DS scenario.
- 5.1.44 The maximum predicted acid N deposition rates in the 2042DN, DM and DS scenarios are 3.11keq/ha/yr, 3.11keq/ha/yr and 3.13keq/ha/yr respectively, each occurring at receptor E2_T4. The maximum predicted change at receptor E2_T4 are 0.021keq/ha/yr for both the ‘alone’ and ‘in-

combination' scenarios. These maximum changes are predicted at the site boundary (located 9m to road).

- 5.1.45 However, no site-relevant acid deposition CLo is available on APIS for the qualifying feature, floating water-plantain (*Luronium natans*). In the absence of an appropriate site-specific CLo, the percentage of change in acid deposition under either the 'alone' or 'in-combination' scenario cannot be assessed relative to the CLo for this feature.

South Pennine Moors SAC/Peak District Moors (South Pennine Moors Phase 1) SPA/Dark Peak SSSI

- 5.1.46 The principal habitat is shrub vegetation, where exceedances have been identified and, therefore, the results for short vegetation are presented and discussed below.
- 5.1.47 Total acid deposition predicted across the South Pennine Moors SAC / Peak District Moors (South Pennine Moors Phase 1) SPA / Dark Peak SSSI demonstrates an improvement from the 2024 Baseline to the 2042 DS scenario. As background acid N deposition rates already exceed the applicable lower CLo, the total predicted acid deposition rates assessed for the Local Plan exceed the lower CLo in all modelled scenarios.
- 5.1.48 The maximum predicted annual mean acid deposition in the 2042 DS scenario is 1.70keq/ha/yr at receptor E10_T10. The maximum change in the predicted annual mean N deposition in the 2042 DS 'alone' scenario at E12_T12 is 0.0024keq/ha/yr (0.3% of the lower CLo) observed at the site boundary (located 5.7m to road).
- 5.1.49 In the 2042 'in-combination' scenario, impact on acid N deposition is greater than 1% lower CLo within two modelled transects, namely, E12_T12 and E11_T11, as shown in **Figure 5-24** and **Figure 5-25**. The variation in acid deposition contributions with distance to road is illustrated in **Figure 5-26**. The key results are summarised below:
- The CLo of 0.569keq/ha/yr and 0.689keq/ha/yr for South Pennine Moors SAC/Peak District Moors (South Pennine Moors Phase 1) SPA/Dark Peak SSSI is exceeded at background level. That is to say that all modelled transects exceed the CLo in all modelled scenarios (with and without Local Plan);
 - The two transect identified above are located to the western extent of South Pennine Moors SAC/Peak District Moors (South Pennine Moors Phase 1) SPA/Dark Peak SSSI. Each transect runs eastwards from the A624 (Glossop Road) into the site. For both transects, the acid N deposition rates decrease exponentially with distance from the modelled road edge. The impact of the Local Plan is highly localised with changes above the 1% CLo screening threshold restricted to areas in the immediate vicinity of the road;
 - For transect E12_T12:
 - The maximum predicted annual mean acid N deposition for the 2042 DS scenario is 1.54keq/ha/yr;
 - The maximum impact 0.016keq/ha/yr (2.3% of the lower CLo) at the site boundary (located 5.7m to road); and
 - The impact falls below the 1% threshold at 24.3m into the site.
 - For transect E11_T11:
 - The maximum predicted annual mean acid N deposition for the 2042 DS scenario is 1.48keq/ha/yr;

- The maximum impact 0.012keq/ha/yr (1.7% of the lower CLo) at the site boundary (located 11.9m to road); and
- The impact falls below the 1% threshold at 18.1m into the site.

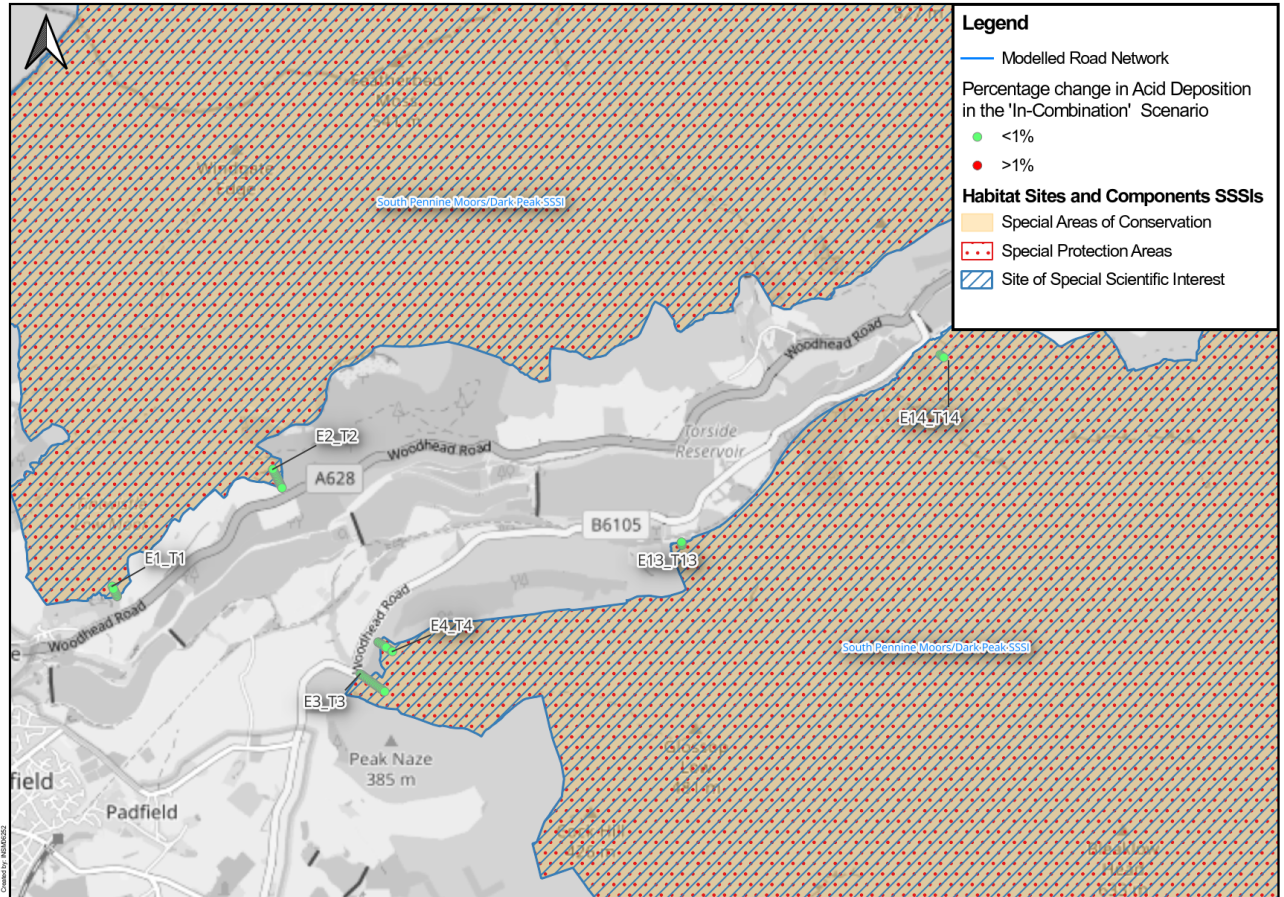


Figure 5-24 - Local Plan 'in-combination' acid N deposition above 1% of CLo at South Pennine Moors

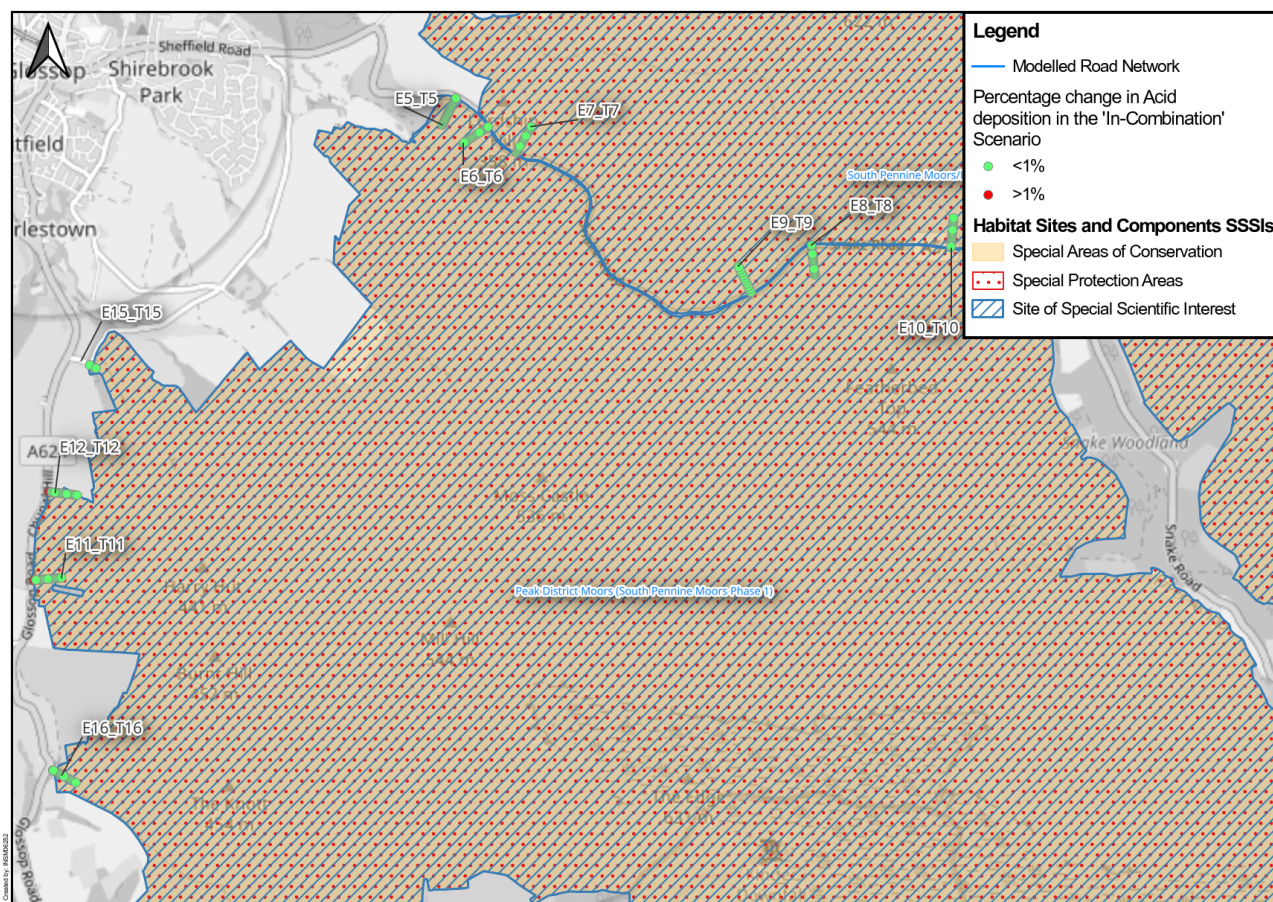


Figure 5-25 - Local Plan 'in-combination' acid N deposition above 1% of CLo at South Pennine Moors

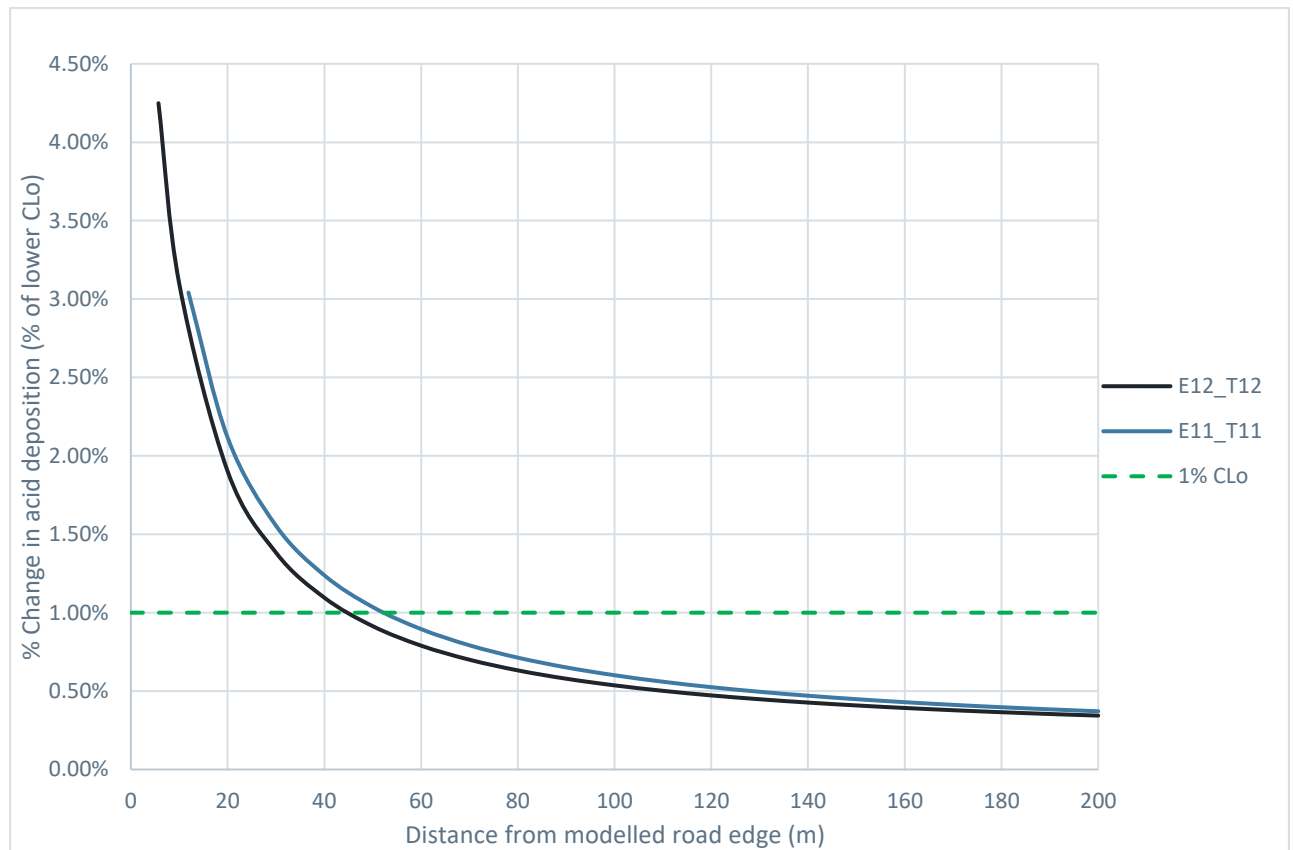


Figure 5-26 - Predicted Local Plan 'in-combination' acid N deposition, expressed as a % of the CLe, at receptors E12_T12 and E11_T11. The dashed green line indicates the 1% CLo screening threshold.

- 5.1.50 As shown in **Figure 5-26**, predicted Local Plan 'in-combination' scenario acid deposition decrease rapidly with increasing distance to road and fall below the 1% CLo screening threshold at approximately 30m to road for both receptors E12_T12 and E11_T11. This demonstrates that the impact is highly localised, with changes above the 1% CLo screening threshold restricted to areas in the immediate vicinity of the A624 Glossop Road as shown in **Figure 5-24**.
- 5.1.51 Overall, for all modelled receptors in the 'alone' scenario, changes are below 1% of the respective critical load. Furthermore, given the ongoing reductions in UK road vehicle fleet emissions, the background acid deposition levels are expected to improve over time. In addition, the Stockport Local Plan contains policies that seek to improve air quality, minimise pollution emissions and promote sustainable transport choices. However, as the impact on Acid deposition is greater than 1% lower CLo threshold for the 'in-combination' scenario, the results have been provided to the Project Ecologist for the judgement of overall significance.

Table 5-1 – Summary of potential for LSE (prior to ecological analysis)

Designated Site	Potential for LSE		N deposition	Acid deposition	Comments where potential for LSE identified	Further assessment
	NO _x	NH ₃				
Rochdale Canal SAC Rochdale Canal SSSI	N	Y	Y	Y	NO_x – Total predicted concentrations fall below the CLe at all receptor locations for the assessment of the Local Plan, both ‘alone’ and ‘in-combination’. The change in predicted annual mean concentration does not exceed 1% of the lower CLe in either the ‘alone’ and ‘in-combination’ scenarios anywhere in the study area. Therefore, no likely significant effects from NO_x concentrations have been identified for this Site. NH₃ – Total predicted concentrations exceed the lower CLe at a few receptor locations in the assessment of the Local Plan both ‘alone’ and ‘in-combination’. The change in predicted annual mean concentrations exceed 1% of the lower CLe in both ‘alone’ and ‘in-combination’ scenarios. The results have been provided to the Project Ecologist for a judgement on overall significance. N deposition – The predicted background N deposition already exceeds the lower CLo of 2kgN/ha/year in the 2024 Baseline and 2042 Do Nothing scenarios (without the Local Plan), and therefore also exceeds the predicted total N deposition in the 2042 Do Something scenario with the Local Plan both ‘alone’ and ‘in-combination’. The changes in predicted total N deposition do exceed 1% of the lower CLo in either the ‘alone’ and ‘in-combination’ scenarios. Furthermore, given the ongoing reductions in UK road vehicle fleet emissions, and other regulated emission sources across the UK the background N deposition levels are expected to improve over time. However, given exceedances of the CLo, the results have been provided to the Project Ecologist for an overall judgement on significance.	Y
South Pennine Moors SAC Peak District Moors (South Pennine Moors Phase 1) SPA Dark Peak SSSI	N	Y	Y	Y	NO_x – Total predicted concentrations fall below the CLe at all receptor locations for the assessment of the Local Plan both ‘alone’ and ‘in-combination’. The change in predicted annual mean concentrations does not exceed 1% of the lower CLe in both ‘alone’ and ‘in-combination’ scenarios anywhere in the study area. Therefore, no likely significant effects of NO_x concentrations have been identified for this Site. NH₃ – Total predicted concentrations fall below the lower CLe at most receptor locations for the assessment of the Local Plan both ‘alone’ and ‘in-combination’. The change in predicted annual mean concentrations does not exceed 1% of the lower CLe in the ‘alone’ scenario. In the ‘in-combination’ scenario, the impact remain above the 1% screening threshold approximately up to 50m to road, beyond which it falls below the 1% screening threshold. The contribution from the Local Plan ‘alone’ is below 0.02µg/m³. However, given the impact on NH₃ exceeds the 1% of the CLe threshold in the ‘in-combination’ scenario, the results have been provided to the Project Ecologist for a judgement on overall significance. N deposition – The predicted background N deposition already exceeds the lower CLo of 5kgN/ha/year in the 2024 Baseline and 2042 Do Minimum scenarios (without the Local Plan), and therefore also exceeds the predicted total N deposition in the 2042 Do Something scenario with the Local Plan both ‘alone’ and ‘in-combination’. Although, the change in predicted total N deposition does not exceed 1% of the lower CLo in the ‘alone’ scenario, the change in predicted total N deposition exceeds 1% of the lower CLo in the ‘in-combination’ scenario. The N deposition contribution from the Local Plan ‘alone’ is below 0.04µg/m³. Furthermore, given the ongoing reductions in UK road vehicle fleet emissions, the background N deposition levels are expected to improve over time. However, given the impact on N deposition exceeds 1% lower CLe threshold for the ‘in-combination’ scenario, the results have been provided to the Project Ecologist for the judgement of overall significance. Acid deposition – The predicted background acid deposition already exceeds the lower CLo in the 2024 Baseline and 2042 Do Minimum scenarios (without the Local Plan), and therefore also exceeds the predicted total acid deposition in the 2042 Do Something scenario with the Local Plan. Although, the change in predicted total acid deposition does not exceed 1% of the lower CLo in the ‘alone’ scenario, the change in predicted total acid deposition exceeds 1% of the lower CLo in the ‘in-combination’ scenario. Furthermore, given the ongoing reductions in UK road vehicle fleet emissions, the background N deposition levels are expected to improve over time. However, given the impact on Acid deposition exceeds 1% the lower CLo for the ‘in-combination’ scenario, the results have been provided to the Project Ecologist for the judgement of overall significance.	Y

6 SUMMARY

- 6.1.1 Based on the screening exercise summarised in **Section 5**, the key observations of the air quality assessment are summarised in this section. The decision as to whether further consideration by the ecology is recommended is based on:
- Change in background concentrations and rates of deposition;
 - Compliance with the CLe or CLo;
 - The change in ambient NO_x and/or NH₃ and N deposition in relation to the 1% threshold alone
 - The change in ambient NO_x and/or NH₃ and N deposition in relation to the 1% threshold in-combination; and
 - The applicability or otherwise of the applied CLe and/or CLo.
- 6.1.2 Where the predicted change due to the Local Plan 'alone' exceeds 1% (or more) of the relevant CLe / CLo, providing the 'in-combination change', is below 1%, no further assessment is considered necessary. It is therefore recommended that results for the following sites are considered by the Project ecologist in any judgement of significance as summarised in **Table 6-1**.

Table 6-1 – Results Summary (Amber colouring denotes consideration required by ecologist)

Designated Site	Ambient NO _x	Ambient NH ₃	N Deposition	Acid Deposition
Rochdale Canal SAC Rochdale Canal SSSI	Background below Cle Improvement between 2024-2042 Full compliance No 'alone' increases >1% No in-combination changes >1%	Background below Cle Mix of deterioration and improvement 2024-2042 Non-compliance at Receptors E2_T3 and E2_T4 Some alone increases >1% Some in-combination changes >1%	Background above Clo Improvement between 2024-2042 Under the alone scenario, non-compliance at Receptors E2_T4, E2_T3 and E2_T2 (alone scenario only). Under the in-combination scenario, non-compliance at Receptors E2_T4, E2_T3, E3_T4, E3_T3 and E3_T2 Some alone increases >1% Some in-combination changes >1%	Background above Clo Improvement between 2024-2042
South Pennine Moors SAC Peak District Moors (South Pennine Moors Phase 1) SPA Dark Peak SSSI	Background below Cle Improvement between 2024-2042 Full compliance No alone increases >1%	Background above Cle Mix of deterioration and improvement 2024-2042 Non-compliance at Receptors E11_T11,	Background above Clo Improvement between 2024-2042 Non-compliance at Receptors E11_T11,	Background above Clo Improvement between 2024-2042 Non-compliance at Receptors E11_T11 and

	No in-combination changes >1%	E12_T12 and E16_T16 (in-combination scenario only) No alone increases >1% Some in-combination changes >1%	E12_T12 and E16_T16 (in-combination scenario only) No alone increases >1% Some in-combination changes >1%	E12_T12 (in-combination scenario only) No alone increases >1% Some in-combination changes >1%
	No likely significant effects. No further consideration required.	Further consideration required by ecologist.	Further consideration required by ecologist.	Further consideration required by ecologist



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Appendix C

Plans and projects assessed for in-combination assessment

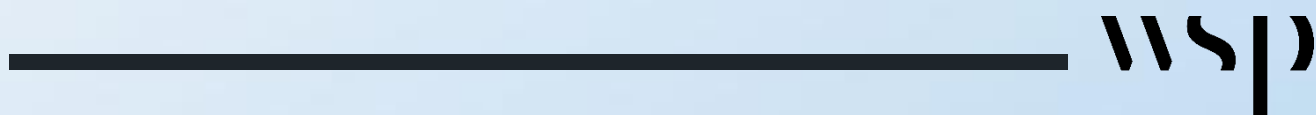


Table C-1 - Housing within Stockport

Location	Houses	Apartments
Adswood	37	37
Bramhall	140	188
Bredbury	115	87
Brinnington	39	15
Cheadle	38	206
Cheadle Hulme	33	316
Davenport, Stepping Hill & Great Moor	75	141
Edgeley & Cheadle Heath	68	349
Gatley	19	25
Hazel Grove	294	470
Heald Green	404	159
High Lane	23	6
Manor and Portwood	210	55
Marple	152	155
Mellor, Marple Bridge & Compstall	60	138
Offerton	46	30
Reddish	334	881
Romiley	78	66
Stockport Town Centre	174	148
The Heatons	355	102
Woodford	50	53
Woodley	380	8,039
Total	3124	11667

Table C-2 – Relevant Other Plans and Projects outside Stockport

Development Type	District	Site Name	Total Dwellings (Housing)/Gross Floor Area (sq.m) (Employment)
Housing	Cheshire East	Little Stanneylands, Wilmslow	200
	Manchester	Oakwood Lodge Day Centre	20
	Manchester	MEA School Fields	147
	Manchester	Greenbrow Rd sites Wastdale Road,	91
	Cheshire East	North Cheshire Growth Village, Handforth	1500
	Cheshire East	Land between Clay Lane and Sagars Rd, Handforth	250
	High Peak	Adderley Place	130
	High Peak	Birch Vale IE	100
	High Peak	Tongue Lane	139
	High Peak	Harpur Hill Campus	153
	High Peak	Land off Glossop Road, Gamesley (Samas Roneo)	156
	High Peak	Bridge Mills	119
	High Peak	Charlestown Works	1257
	High Peak	Shaw Lane	113
	High Peak	Granby Road	73
	High Peak	Waterswallows	330
	High Peak	Hogshaw	105
	High Peak	Forge Works	182

	High Peak	Hallsteads	102
	High Peak	Burlow Road	275
	High Peak	Foxlow Farm	395
	High Peak	Macclesfield Road /Ling Longs	107
	High Peak	Roughfields	102
	High Peak	Derby Road	107
	High Peak	Ollersett Road	239
	High Peak	Dukes Drive	338
	Manchester	Chorlton District Centre	350
	Manchester	Siemens/Elizabeth Slinger Road site	95
	Manchester	Former Laundry, Burnage Lane	56
	Manchester	Sites at and adjacent to former Withington Hospital,	287
	Trafford	Land at Lock Lane	550
	Trafford	Wharfside Strategic Location	1680
	Trafford	L & M Site, Norman Road	162
	Trafford	Land bound by Bridgewater Way	363
	Trafford	Trafford Wharf Road	354
	Trafford	Land adjacent to Manchester Ship Canal	550
	Trafford	Pomona Docks	526
	Trafford	Trafford Waters	3000
	Trafford	The Square	202

	Trafford	Former Itron Site	282
	Trafford	Trafford Plaza, Seymour Grove	174
	Trafford	Sale West Estate	263
	Cheshire East	Parkgate Extension, Knutsford	200
	Cheshire East	Royal London, Wilmslow	175
	Cheshire East	South Macc Dev Area, Macclesfield	1050
	Cheshire East	Land East of Manchester Rd, Knutsford	250
	Cheshire East	Land South of Longridge, Knutsford	225
	Cheshire East	Land West of Manchester Rd, Knutsford	75
	Cheshire East	Land at Congleton Road, Macclesfield	300
	Cheshire East	Land at Sprink Farm, Poynton	150
	Cheshire East	Land adjacent to Hazelbadge Rd, Poynton	150
	Cheshire East	Land South of Chester Rd, Poynton	150
	Cheshire East	Land North of Northwich Rd, Knutsford	175
	Cheshire East	Heathfield Farm, Wilmslow	150
	Cheshire East	Land between Chelford Rd and Whirley Rd, Macclesfield	150

	Cheshire East	Alderley Park, Congleton Road, Nether Alderley, Macclesfield	275
	Cheshire East	Land East of Fence Avenue, Macclesfield	250
	Cheshire East	Central Macclesfield	500
	Cheshire East	Gaw End Lane, Macclesfield	300
	Cheshire East	Land South Of Chelford Road, Macclesfield	200
	Tameside	Former Robertson's Jam Factory	330
	Tameside	Former Hartshead High School	195
	Tameside	Remainder of land between Hey Farm & Micklehurst Estate, UDP Allocation H1(12)	177
	Manchester	391 Palatine Road, Northenden	234
	Tameside	Godley Green, Land Off Mottram Old Road, Hyde, SK14 3BE	2150
	High Peak	Hallsteads, Dove Holes (west)	83
	High Peak	Market Street Depot, Buxton (B7)	24
	High Peak	Tongue Lane, Buxton (B8)	139
	High Peak	Paradise Street, Glossop (G2)	28
	High Peak	Bute Street, Glossop (G12)	56
	High Peak	Land East of Woolley Bridge, Glossop	18

	High Peak	Shire Hill Hospital, Glossop	41
	High Peak	Eastern Mill, Glossop	98
	High Peak	Land N of Dinting Road, Seddon Homes, Glossop	115
	High Peak	Dinting Road/North of the Railway, Glossop (G19)	65
	High Peak	Dinting Lane, Glossop (G20)	50
	High Peak	Former Railway Museum, Glossop (G23)	89
	High Peak	Alders Meadow, Buxton Road, Chinley	25
	High Peak	Britannia Mill (C15)	50
	High Peak	Marsh Lane, New Mills	29
	High Peak	Haulage Yard, Furness Vale	37
	High Peak	Land south of Hollin Cross Lane, Glossop	24
	Cheshire East	Albion Mill, London Road, Macclesfield	30
	Cheshire East	Alam Mill, Crompton Road, Macclesfield, Cheshire, SK11 8DS	24
	Cheshire East	Land south of Coppice Way, Handforth	127
	Cheshire East	Land opposite, Lowerhouse Mill, Albert Road, Bollington	34
	Cheshire East	Kings School, Cumberland Street, Macclesfield.	69

	Cheshire East	Land Near Former Old Kings Head Public House, Chestergate, Macclesfield	45
	Cheshire East	Silk House, Park Green, Macclesfield, Cheshire	26
	Cheshire East	Ivy House, Ivy Road, Macclesfield	29
	Cheshire East	Sovereign Court, King Edward Street, Macclesfield, Cheshire, SK10 1AF	20
	Cheshire East	Poynton Sports Club, Poynton	80
	Cheshire East	Land at Poynton High School, Poynton	20
	Cheshire East	Former Vernon Infants School, Poynton	50
	Manchester	Mount Road / Former Mellands Playing Fields	303
	Manchester	B&M superstore site, Kingsway	115
	Manchester	Gorton District Centre Framework: Gymnastics Centre, Garratt Way	102
	Manchester	Wythenshawe Civic Centre: Forum Car Park site	275
	Manchester	Wythenshawe Civic Centre: Shell site	500
	Manchester	Wythenshawe Civic Centre: (formerly Townhouses)	150
	Manchester	Wythenshawe Civic Centre: Centron House	150

	Manchester	Wythenshawe Civic Centre: The Restaurants Site	250
	Manchester	Wythenshawe Civic Centre: Old Bus Station site	225
	Manchester	Victoria Works, Sunny Brow Road, Gorton	101
	Manchester	Wythenshawe Civic Centre: Old Barclays Data Centre site	229
	Manchester	Wythenshawe Civic Centre: Alpha House	120
	Manchester	Wythenshawe Civic Centre: BP Petrol Station site	115
	Manchester	Wythenshawe Civic Centre: Gala Bingo	120
Employment	Manchester	Airport City North	1,13,443
	Manchester	Manchester Campus	12,500
	Manchester	69 Shentonfield Road, Sharston Industrial Area, Manchester M22 4RW	1,350
	Cheshire East	North Cheshire Growth Village, Handforth	42,000
	High Peak	Staden Lane	858
	High Peak	Rossington Park	4,960
	High Peak	Nestle, Station Road	65
	High Peak	Hogs Yard	2,323
	High Peak	Morrisons extension	1,253
	High Peak	Nestle Waters Uk Ltd Waterswallows Lane Fairfield	14,000

	Manchester	Airport City South, Global Logistics Hub - A538 Sunbank Lane	1,56,500
	Manchester	Wythenshawe Hospital	58,500
	Trafford	Land South Off Barton Bridge, Trafford Way, Trafford Park	17,000
	Trafford	Sawfield Nurseries, Fairy Lane, Sale, M33 2ju, West Didsbury Storage Limited.	11,813
	Trafford	F And G Commercials (Manchester) Limited, Trafford Park Road, Trafford Park, Manchester, M17 1hg. F & G Holding Ltd.	2,338
	Trafford	Evans Halshaw Commercials, Mosley Road, Trafford Park, Manchester, M17 1pd. Industrial Property Investment Fund.	20,898
	Trafford	Land At Oakfield Road/Moss Lane, Altrincham, Wa15 8ep	3,833
	Trafford	Land Between Manchester Ship Canal and Trafford Boulevard/Old Barton Road, Urmston	80,000
	Cheshire East	Adlington Business Park Extension, Poynton	12,542
	Cheshire East	Parkgate Extension, Knutsford	21,000
	Cheshire East	Royal London, Wilmslow	13,700
	Cheshire East	Wilmslow Business Park, Wilmslow	25,000

	Cheshire East	South Macc Dev Area, Macclesfield	19,500
	Tameside	Plot B Hattersley Industrial Estate, Stockport Road, Longdendale	2,746
	Tameside	Shepley Industrial Estate Extension, Shepley Road, Audenshaw	7,410
	Tameside	Oxford Street Mills, Oxford Street East, Ashton-Under-Lyne	5,011
	High Peak	Thornsett Industrial Estate	1,13,443
	High Peak	St Georges Mill New Mills	12,500
	High Peak	Newtown (Grove Mill) New Mills	1,350
	High Peak	Newtown Industrial Area New Mills	1,56,500
	High Peak	Ensor Way New Mills	58,500
	High Peak	Torr Vale Mill	2,746
	High Peak	New Mills Newtown	7,410
	High Peak	Watford Bridge Industrial Estate , Watford Bridge Road , New Mills , Derbyshire , SK22 4HJ	5,011
	High Peak	Land at Thornsett Trading Estate , Birch Vale , High Peak	17,000
	High Peak	Redmoor Lane New Mills SK22 3JL	11,813
	Manchester	Airport City North (Land To The North-east And South-west Of Enterprise Way)	66476

	Land Off Ambrose Street M Manchester	Airport City North (Land Bounded By Enterprise Way To The North And West And The M56 To The South Manchester)	17148
	Manchester	Site South Of Hathersage Road, Manchester M13 0JE	13762
	Manchester	Didsbury Technology Park, Princess Road Manchester M20 2UR	10409
	Manchester	Former Walkers Of Manchester Printing Site Crabtree Lane Manchester M11 4GU	1708
	Manchester	Medi Park (University Hospital South Manchester)	45000
	Manchester	SportCity (Etihad Stadium)	20000
	Manchester	Land To The North Of Lawton Street	1433
	Manchester	Hangar 4 Pinfold Lane Manchester Airport Manchester M90 5PQ	1568
	Manchester	Argosy Drive Manchester Airport Manchester M90 5PL	13560
	Manchester	Land Off Ambrose Street Manchester M12 5DD	11600
	Manchester	Building 402 Avro Way Manchester M90 5AF	4131
	Manchester	16-18 Hyde Road Manchester M12 6BW	7428
	Manchester	Simon House Brownley Road Manchester M22 5RA	4153

	Manchester	Former Walkers Of Manchester Printing Site Crabtree Lane Manchester M11 4GU	3416
	Manchester	Land At Welcomb Street Manchester	3703
	Cheshire East	LPS 15 Land at Congleton Road	35000



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