UNIVERSAL DESTINATIONS & EXPERIENCES UK PROJECT

Former Kempston Hardwick Brickworks and adjoining land, Bedford

Report to Inform Habitats Regulations Screening Assessment

Report reference: 6.13.0

Revision number: 00

Date: June 2025

UNIVERSAL DESTINATIONS & EXPERIENCES

CONTENTS

APPENDICES

1. INTRODUCTION

1.1. BACKGROUND TO THE PROPOSED DEVELOPMENT

1.1.1 This Report to Inform Habitats Regulations Assessment (HRA) Screening has been prepared on behalf of UDX which is seeking planning permission for the construction and operation of a Universal Entertainment Resort Complex (ERC), and associated development, in Bedford. The proposal is sponsored by the Department for Culture Media and Sport and the Department for Transport, and its associated arm's-length bodies have assisted in the development of the highways and rail related elements of the proposal with Bedford Borough Council. The proposal intends to provide sufficient information to enable the Ministry of Housing, Communities and Local Government (MHCLG) to consult on and consider making a planning decision.

1.1.2 The Site is located south-west of Bedford, Bedfordshire and is broadly to the east of the A421 and west of the Midland Main Line and is on the former Kempston Hardwick brickworks and agricultural land. The Site is divided into four main land areas referred to in the planning proposal as the Core Zone, Lake Zone, West Gateway Zone, and East Gateway Zone. The proposed ERC lying within these Zones would allow a theme park and associated uses including retail, dining, entertainment; visitor accommodation; sport, recreation, leisure and spa facilities; venues with conference and convention spaces; associated services and uses for any operational or administrative functions; utilities generation, storage, collection, treatment, and processing facilities associated with the ERC; vehicle and cycle parking, maintenance and servicing, and transportation hubs; access routes and circulation spaces; landscaping; utility infrastructure; and use of land necessary to support construction.

1.1.3 The planning proposal also includes a series of infrastructure improvements including:

- A new A421 junction;
- An expanded railway station on the Thameslink/Midland Main Line at Wixams;
- Improvements to Manor Road; and
- Improvements to certain other local roads.

1.1.4 It also safeguards land for a potential new railway station on the proposed East West Rail Bletchley to Bedford Line, should this come forward in the future.

1.1.5 Capitalised terms that are not defined within this document shall have the same meaning as set out in **Appendix 0.1: Glossary and Acronyms (Volume 3)** of the Environmental Statement **(Document Reference 4.0.1.0)**.

1.1.6 The Proposed Development is described in further detail in **Chapter 2: Description of the Proposed Development (Volume 1)** of the Environmental Statement **(Document Reference 2.2.0)** and **Appendix 2.1: Environmental Statement Basis of Assessment (Volume 3)** of the Environmental Statement **(Document Reference 4.2.1.0)**.

1.1.7 The Promoters intend to provide sufficient information on the proposal to enable the MHCLG to consult on and consider making the planning proposal, prior to laying it before Parliament.

1.1.8 The **Site Location Plan (Document Reference 1.6.0)** shows the Site boundary for the Proposed Development. All land within the Site boundary is hereinafter referred to as the Site. The Site extends to approximately 268 hectares and is centred on Ordnance Survey Grid Reference coordinates TL029445.

1.2. HABITATS REGULATIONS ASSESSMENT CONTEXT

1.2.1 Competent Authorities must assess plans and projects for their potential to cause likely significant effects (LSE) on the National Site Network. Should LSE be identified by the initial screening process it is necessary to further consider the effects by way of an appropriate assessment (AA). Where the plan or project may lead to LSE it must be subject to an AA to determine whether there will be adverse effects to any such sites. Any plan or project that would lead to adverse effects on the integrity of these site(s) cannot be permitted without meeting strict additional tests.

1.2.2 Overall, this process of assessment is known as a HRA. Further details of the applicable legislative context are summarised below.

1.2.3 Following the UK's exit from the European Union (EU), *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*[1] has resulted in amendments to the *Habitats Regulations*[2]. Department for Environment, Food and Rural Affairs guidance (2021)[3] states that Special Areas of Conservation (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*[1] 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; and
- New SACs and SPAs designated under these Regulations.

1.2.4 Any references to Natura 2000 in the *2017 Regulations*[2] and in guidance now refers to the new National Site Network.

1.2.5 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, Bonn and Ramsar Conventions.

---

[1] Department for Environment, Food and Rural Affairs, Natural England, Welsh Government and Natural Resources Wales (2023) *Habitats regulations assessments: protecting a European site*. Available at: https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site [Accessed: 19 May 2025].

[2] HM Government (2017) *The Conservation of Habitats and Species Regulations 2017*. Available at: https://www.legislation.gov.uk/uksi/2017/1012 [Accessed: 19 May 2025].

[3] Department for Environment, Food and Rural Affairs (2021) *Changes to the Habitats Regulations 2017*. Available at: https://www.gov.uk/government/publications/changes-to-the-habitats-regulations-2017/changes-to-the-habitats-regulations-2017 [Accessed: 19 May 2025].

1.2.6 It is also a matter of government policy that Ramsar sites and potential SACs and SPAs are given the same protection as other European Sites, as described in Paragraph 194 of the *National Planning Policy Framework*[4]. In that context, Ramsar sites have also been considered in this report. SACs, SPAs and Ramsar sites are collectively referred to as 'Habitats Sites' throughout the remainder of this report.

1.3. STAGES OF HABITATS REGULATIONS ASSESSMENT

1.3.1 Guidance on the Habitats Regulations[3] sets out the stepwise approach which should be followed to enable Competent Authorities to discharge their duties in respect of HRA. The process is usually summarised in four distinct stages of assessment:

- **Stage 1:** Screening: the process which identifies whether effects upon a Habitats Site(s) of a plan or project are objectively possible. This must consider effects either alone or in combination with other plans or projects, and considers whether these effects are likely to be significant. Following the People Over Wind ruling (People over Wind and Peter Sweetman v Coillte, 2018) mitigation designed to avoid or lessen effects on Habitats Sites should not be considered at this stage;
- **Stage 2:** Information to inform AA: the detailed consideration of the effect on the integrity of Habitats Sites of the plan or project, either alone or in combination with other plans or projects. This stage of the process must be carried out with respect to the Site's conservation objectives and its structure and function. Mitigation measures designed to avoid or lessen effects on Habitats Sites are considered at this stage. The relevant Statutory Nature Conservation Body (SNCB) must be engaged over the findings of an AA;
- **Stage 3:** Assessment of alternative solutions: the process which examines alternative ways of achieving the objectives of the plan or project that avoid adverse effects on the integrity of the Habitats Site(s); and
- **Stage 4:** Assessment where no alternative solutions exist and where adverse effects remain. This includes an assessment of whether the development is necessary for Imperative Reasons of Overriding Public Interest (IROPI). If it is determined the plan or project should proceed (i.e. IROPI exist), compensatory measures to maintain the overall coherence of the National Site Network must be identified. If a Habitats Site(s) supports Annex 1 priority habitats or Annex 2 priority species, this affects the reasons that can be used to justify IROPI. These must be either:
  - (a) reasons relating to human health, public safety or beneficial consequences of primary importance to the environment; or
  - (b) any other reasons which the plan-making authority, having due regard to the opinion of the Appropriate Authority, considers to be imperative reasons of overriding public interest.

[4] Ministry of Housing, Communities and Local Government (2024) *National Planning Policy Framework*. Available at: https://assets.publishing.service.gov.uk/media/67aafe8f3b41f783cca46251/NPPF_December_2024.pdf [Accessed: 19 May 2025].

1.4. PURPOSE OF THIS REPORT

1.4.1 The purpose of this report is to provide information to support the Competent Authority in determining whether the Proposed Development could trigger LSE on Habitats Sites. This determination is Stage 1 of the HRA process, as described in Section 1.3 above. This report also sets out advice received from Natural England as the relevant SNCB, in relation to HRA. The assessment of whether the Proposed Development could trigger LSE is also set out in this report.

2. HRA SCREENING METHODOLOGY

2.1.1 A desk-based exercise to review whether the Proposed Development could trigger LSE to Habitats Sites, either alone or in-combination with other plans and projects, has been undertaken. This included the following steps:

- Establishing an initial Zone of Influence (ZoI) of the Proposed Development. This involved establishing a cautious worst case[5] (maximum) distance over which the Proposed Development could generate impacts capable of triggering significant effects on Habitats Sites and their qualifying features;
- Identifying Habitats Sites and their qualifying interests within the ZoI of the Proposed Development;
- Identifying Habitats Sites with mobile qualifying interest features (e.g. bats and birds) located up to 30km from the Proposed Development, to enable assessment of whether these could be at risk of LSE;
- Identification of the impact pathways generated by the Proposed Development that could trigger effects on Habitats Sites, including confirmation of their ZoI;
- Using the information gathered in steps 1 to 4 above, assessing whether the Proposed Development could trigger LSE to any Habitats Sites, either alone or in-combination with other plans and projects;
- Engagement with Natural England to seek their advice on the findings of steps 1 to 5 above; and
- Production of this report to capture the outcomes of steps 1 to 6 above.

[5] A cautious worst case that provides a robust assessment of likely significant effects.

3. HABITATS REGULATIONS ASSESSMENT SCREENING FINDINGS

3.1.1 The ZoI of the Proposed Development was initially set at as a 10km radius from the Site. This was based on the professional judgement on the authors with consideration of the nature of the Proposed Development and their past experience of HRAs on a wide range of large infrastructure projects.

3.1.2 The ZoI was extended to 30km to check for Habitats Sites supporting mobile qualifying interests, primarily bats, but also birds which may use habitats outside the boundary of a Habitats Site, with that land being of importance to them.

3.1.3 There are no Habitats Sites within 10km of the Site. The closest Habitats Site is Upper Nene Valley Gravel Pits SPA and Ramsar Site. This is located approximately 22km northwest of the Site. The SPA and Ramsar site are designated for supporting important populations of overwintering birds.

3.1.4 MHCLG requested that information was provided with the application to confirm the absence of LSE from traffic-related air quality impacts. Dispersion modelling has therefore been completed for the Upper Nene Valley Gravel Pits SPA/Ramsar to address this request, although was not considered necessary to rule out LSE given the distance between the Proposed Development and the SPA/Ramsar Site, and the nature of the SPA/Ramsar Site.

3.1.5 Air quality impacts on ecological sites are typically assessed against numerical screening criteria, to determine if the predicted impacts of a plan or project will exceed set thresholds. Where an impact exceeds one or more of these numerical thresholds it cannot be excluded from further assessment on numerical grounds alone. Where an impact does not exceed these numerical thresholds (either alone or in-combination with other plans and projects) it can be discounted. In the case of vehicle emissions, the relevant pollutants for assessment are different forms of nitrogen emitted from vehicle tailpipes. The numerical thresholds relate to the concentration of ammonia and oxides of nitrogen in the air, and to the rate of nitrogen deposition to a given habitat.

3.1.6 The numerical thresholds used relate to the ‘critical loads’ and ‘critical levels’ that have been assigned to habitats:

- A critical load is the rate of deposition of a pollutant, typically expressed as kg/ha/yr, impacts below which current scientific understanding suggests leads to no negative effects. Critical loads are habitat-specific;
- Critical levels are based on the concentration in air of a gaseous pollutant, below which harmful effects are not thought to occur based on current scientific understanding. These are not habitat-specific; and
- The critical loads and levels used for the dispersion modelling are described in **Appendix A** to this report.

3.1.7 The numerical screening criterion typically used is 1% of the relevant critical load or level. For example, if a habitat had a critical load for nitrogen deposition of 10kgN/ha/yr the screening criterion would be 0.1kgN/ha/yr; because this is 1% of 10. Impacts under 0.1kgN/ha/yr would be considered insignificant on numerical grounds. The risk of significant effects from impacts above 0.1kgN/ha/yr could not be screened out purely on numerical grounds, as such an impact would exceed 1% of critical load. This approach is aligned with Natural England guidance on assessing air quality impacts on National Network Sites[6].

3.1.8 The dispersion modelling completed demonstrates that there will be no exceedances of numerical screening thresholds for air quality impacts on ecological sites. All predicted impacts, either alone or in-combination with other plans and projects, are below the 1% screening criteria for critical levels and critical loads. As such air quality impacts from traffic accessing the Proposed Development are not predicted to trigger LSE. The results of the dispersion modelling relevant to Habitats Sites are provided in **Appendix A.**

3.1.9 The Proposed Development is not predicted to have any effect at all on land within the Upper Nene Valley Gravel Pits SPA or Ramsar Site. This is because no conceivable impact pathways have been identified by which the Proposed Development could lead to biophysical changes within these designated sites.

3.1.10 The ZoI of the Proposed Development (for impacts other than air quality) is not considered to extend further than 10km from the Site. Advice from Natural England into the Examination of the Local Plan 2040 for Bedford Borough Council[7] identifies that land beyond 10km of the Nene Valley Gravel Pits SPA/Ramsar Site is unlikely to be 'functionally-linked land'. Functionally-linked land is land outside the boundary of a designated site, but which supports or is used by the habitats and/or species that are the reason for designating the site. Land within the ZoI of the Proposed Development is therefore not considered to be functionally-linked land for the Upper Nene Valley Gravel Pits SPA/Ramsar site. This is because land within the ZoI of the Proposed Development (i.e. within 10km of the Proposed Development) is all located more than 12km from the SPA/Ramsar Site; in accordance with the Natural England advice, it is therefore unlikely to be used by SPA/Ramsar Site bird species.

[6] Natural England (2018) *Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations*. Available at: https://publications.naturalengland.org.uk/file/5431868963160064 [Accessed: 19 May 2025].

[7] Bedford Borough Council (2022) *Habitat Regulations Assessment of Local Plan 2040*. Available at: https://bedford.oc2.uk/document/reps/1353 [Accessed: 19 May 2025].

3.1.11 There is one SAC located within 30km of the Site for which bats are the primary designation feature. This is Eversden and Wimpole Woods SAC which is located approximately 29.4km northeast of the Site. The SAC comprises woodlands which support a nationally important summer maternity roost for barbastelle bats (*Barbastella barbastellus*). The maximum foraging range of barbastelle bats is considerably less than 29.4km[8] (the referenced research indicates an average foraging home range of 7km from a maternity roost), with this also reflected in radio-tracking studies of barbastelle bats completed at Eversden and Wimpole Woods[9]. Given the distance between the Proposed Development and the SAC, there are not expected to be material functional links between the SAC population and any barbastelle bats that may use the Site of the Proposed Development. As such, no effects on the Eversden and Wimpole Woods SAC and the associated barbastelle population are predicted to occur.

3.1.12 No other Habitats Sites have been identified within 30km of the Proposed Development that support mobile qualifying interests likely to make material use of habitats within the ZoI of the Proposed Development.

3.1.13 In light of the above, the Proposed Development is not predicted to trigger LSE (or have any perceptible effects at all) on Habitats Sites. As the Proposed Development is not predicted to have any perceptible effects alone, it also could not contribute to LSE in-combination with other plans and projects. As such, further consideration of in-combination effects is not required.

3.1.14 The findings of this assessment have been communicated to Natural England. Natural England have confirmed that they are satisfied that LSE, either individually or in-combination with other plans and projects, would not occur. Discussions and agreements with Natural England are captured in the Summaries of Agreed Position (**Appendix 4** of the **Planning Statement (Document Reference 6.1.0).**

[8] Zeale, M.R.K., Davidson-Watts, I. and Jones, G. (2012) 'Home range use and habitat selection by barbastelle bats (Barbastella barbastellus): implications for conservation', *Journal of Mammalogy*, 93(4), pp. 1110-1118. Available at: https://academic.oup.com/jmammal/article-abstract/93/4/1110/959700?redirectedFrom=fulltext [Accessed: 19 May 2025].

[9] Natural England (2018) *European Site Conservation Objectives for Eversden and Wimpole Woods SAC (UK0030331)*. Available at: https://publications.naturalengland.org.uk/publication/6736081810620416 [Accessed: 19 October 2025].

Appendix A

AIR QUALITY TECHNICAL NOTE

Public

TECHNICAL NOTE

DATE:	22 May 2025	**CONFIDENTIALITY:**	Public
SUBJECT:	Air Quality Impacts at Upper Nene Valley Gravel Pits SPA and Ramsar		
PROJECT:	Universal Destinations & Experiences UK Project	**AUTHOR:**	Hongbin Wang
CHECKED:	Andy Talbot	**APPROVED:**	Andy Talbot

INTRODUCTION

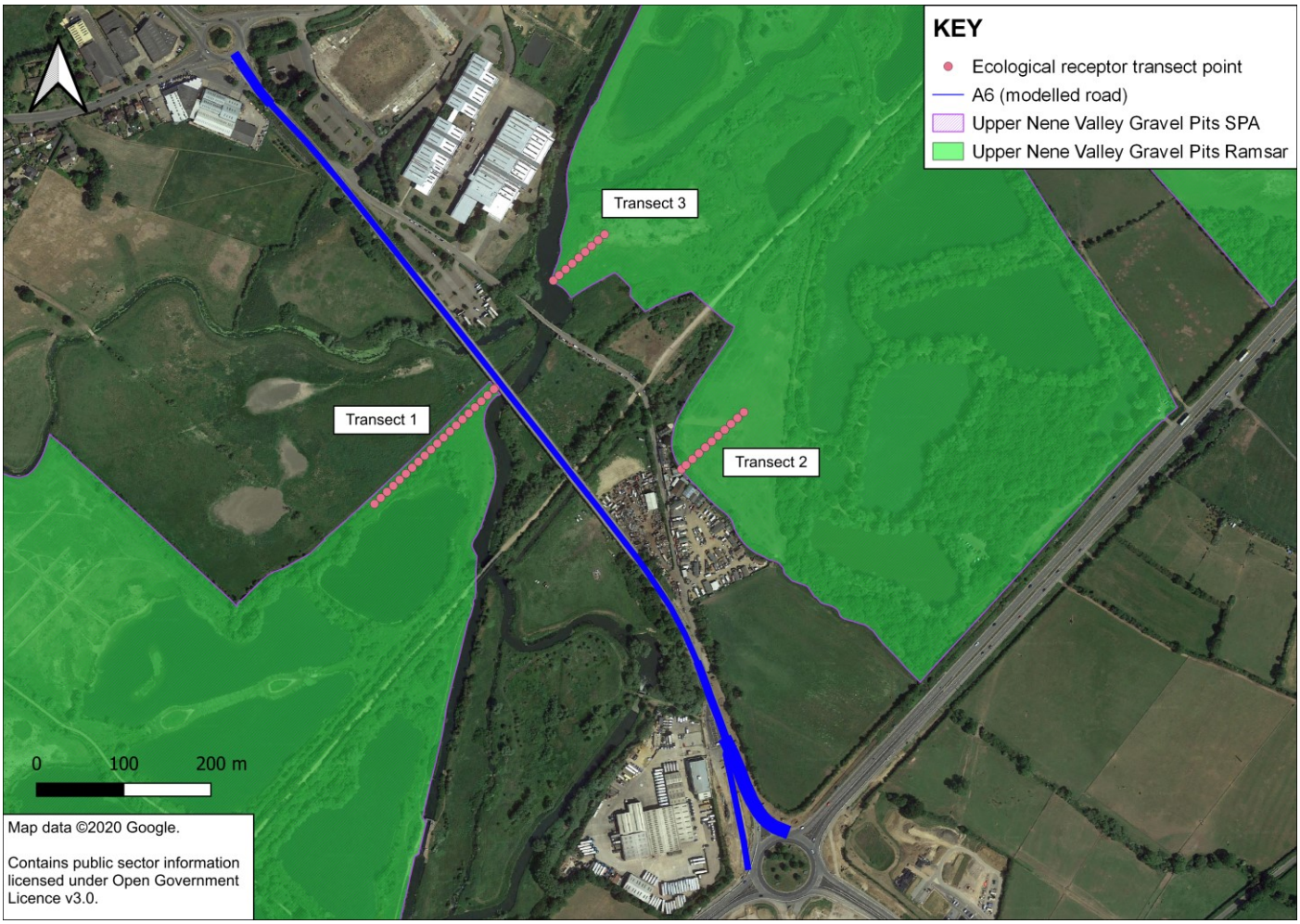
This technical note sets out the methodology and results of air quality dispersion modelling to predict the changes in annual mean levels of nitrogen oxides (NOx), ammonia (NH_3) and nitrogen deposition (N-dep) at the Upper Nene Valley Gravel Pits Special Protection Area (SPA) and Ramsar site (hereafter the 'ecological receptor') due to NOx and NH_3 emissions from road traffic generated by the Proposed Development.

The location represented by the modelling is between the towns of Higham Ferrers and Irthlingborough, where the A6 crosses over the River Nene on a viaduct of up to 8m above the level of the adjacent ecological receptor. The location is illustrated in **Figure 1**. The surrounding area which includes the ecological receptor comprises waterbodies (channels and lakes associated with the River Nene), areas of grassland and trees.

The purpose of the technical note is to provide supporting evidence for the Habitats Regulations Assessment (HRA). In accordance with HRA requirements, the modelling predicts the changes in air pollutant levels with the Proposed Development alone and in-combination with other plans and projects. The HRA screening threshold for change in air pollutant level of 1% of the relevant critical level/load has been applied. The results are provided for interpretation in the HRA report; interpretation is not included in this technical note.

Headline finding: The HRA 1% screening threshold is not exceeded under any scenario.

Figure 1 – Location



METHODOLOGY

The modelling was undertaken assuming that some road traffic associated with the Proposed Development travels past the ecological receptor along the A6 between the Chowns Mill Roundabout, which extends between to the A45 and the A5026 to the south and the B5348 to the north. Traffic data for the A6 were provided by the Transport Consultant (SLR). The data, in the form of annual average traffic (AADT) flow and percentage of heavy-duty vehicles (HDV), are included in **Table 1**.

Table 1 – Traffic data used in modelling

2023 base AADT	2031 & 2051 forecast base AADT	2031 with Proposed Development AADT	2051 with Proposed Development AADT
18,379 (4.39% HDV)	20,086 (4.02% HDV)	20,276 (3.98% HDV)	20,328 (3.97% HDV)

Notes:

- The base AADT flows were derived from the Department for Transport's (DfT) annual traffic count data for the A6 at census count point 56172 [1]. The data were available for 2000 to 2023 inclusive. For modelling, a 2023 base year was used to align model predictions with ratified air quality monitoring data for 2023.
- A TEMPro[2] growth factor of 1.0971 was applied to the 2023 base traffic AADT (18,379) to give forecast base AADT data.
- All vehicles associated with the Proposed Development using the A6 are cars only.
- An average free flow speed of 64.3kph (40mph) was assumed except at junctions where a lower speed of 20kph (12mph) was assumed.

The following scenarios were modelled:

- 2023 Base, to represent existing conditions;
- 2031 do-nothing (DN), to represent the future without the Proposed Development and no base traffic growth after 2023 so as to enable the changes with the Proposed Development to be determined in-combination with other plans and project;
- 2031 do-minimum (DM), to represent the future without the Proposed Development but accounting for base traffic growth due to other plans and projects so as to enable the enable the changes with the Proposed Development to be determined alone;
- 2031 do-something (DS), to represent the future with the Proposed Development and base traffic growth due to other plans and projects;
- 2051 DN;
- 2051 DM; and
- 2051 DS.

Table 2 provides air quality model details including setup and input assumptions, and handling of outputs.

[1] Department for Transport (2024) *Traffic Statistics Manual Count Points*. https://roadtraffic.dft.gov.uk/manualcountpoints/56172.
[2] Department for Transport (2024) *Trip End Model Presentation Program (TEMPro) version 8.1*. https://www.gov.uk/government/publications/tempro-downloads

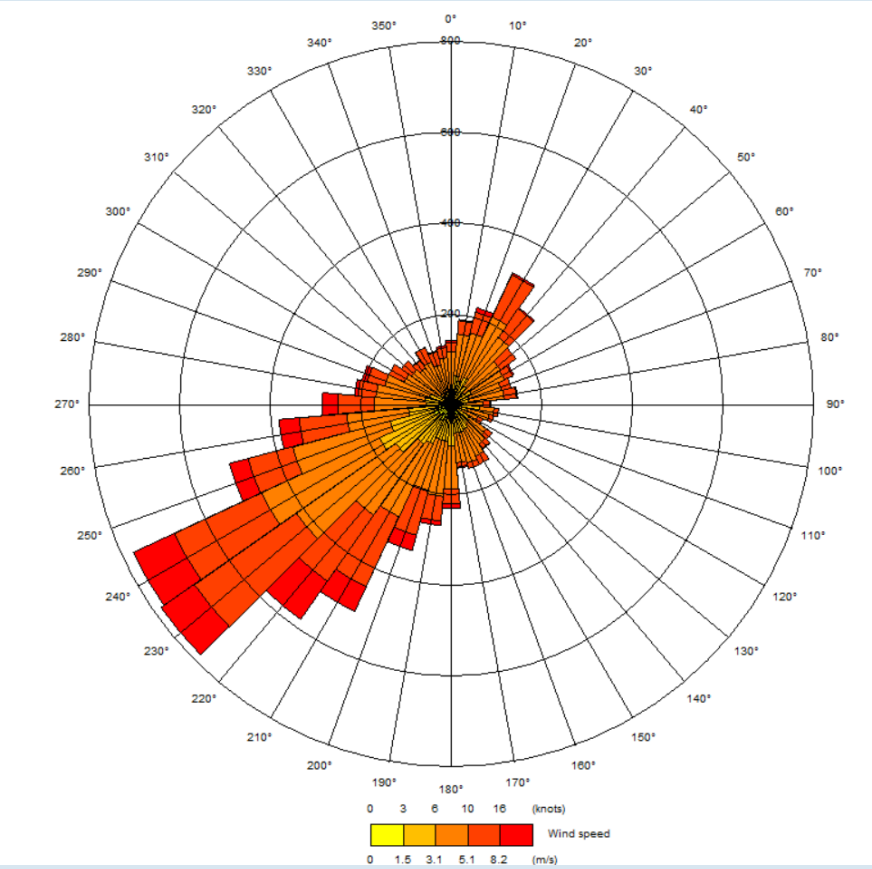
Table 2 - Air quality model details

Item	Notes
Dispersion model software	ADMS-Roads[3] version 5.0.1.3
Setup	Coordinate system: OSGB 1936 British National Grid (epsq:27700) Dry deposition option used for NH_3 (including plume depletion) Additional input file (.uai) for viaduct road source
Road Sources	**NOx emissions** ▪ Calculated using the Department for Environment, Food and Rural Affairs (Defra) Emissions Factors Toolkit (EFT)[4] version 13.1. ▪ Area: England (Not London) ▪ Year: 2023, 2031 and 2050 (latest setting allowed by EFT, for use with 2051 scenarios). ▪ Traffic Format: Basic Split ▪ Road Type: Rural (Not London). ▪ Output: Air Quality Modelling (g/km/s). **NH_3 emissions** ▪ Calculated using Air Quality Consultants Ltd Calculator for Road Emissions of Ammonia (CREAM)[5] version V2A. ▪ Area: England (Not London) ▪ Year: 2023, 2031 and 2050 (latest setting allowed by CREAM, for use with 2051 scenarios). ▪ Traffic Format: Basic Split. ▪ Road Type: Rural (Not London). ▪ Output: Air Quality Modelling (g/km/s) ▪ 'NH3GRASSLAND' added to ADMS Roads pollutant palette with a deposition velocity of 0.02m/s to represent the deposition velocity for low/short vegetation.
Meteorology	▪ Cranfield 2023 (missing data infilled from Bedford) ▪ Site latitude: 52.3 degrees ▪ Dispersion site surface roughness: 0.5m ▪ Dispersion site minimum Monin-Obukhov length: 30m ▪ Meteorological measurement site surface roughness: 0.2m ▪ Meteorological measurement site minimum Monin-Obukhov length: 10m ▪ Surface albedo: 0.23 ▪ Priestley Taylor parameter: 1

[3] Cambridge Environmental Research Consultants (2024) *ADMS-Roads.* https://www.cerc.co.uk/environmental-software/ADMS-Roads-model.html.

[4] Department for Environment, Food and Rural Affairs (2024) *Local Air Quality Management Support Website: Emissions Factors Toolkit (EFT), version 13.1.* https://laqm.defra.gov.uk/air-quality/air-quality-assessment/emissions-factors-toolkit/.

[5] Air Quality Consultants (2025) *Calculator for Road Emissions of Ammonia CREAM V2A.* https://www.aqconsultants.co.uk/resources/calculator-for-road-emissions-of-ammonia.

Item	Notes
	▪ Height of wind measurement: 10m ▪ Wind data in sectors of 10 degrees ▪ Meteorological data are hourly sequential
Wind rose as generated from met data using ADMS wind rose viewer	
Background pollutant data	Not input to model directly but incorporated in the post-processing of model outputs to give predictions of total pollutant concentrations. Defra 1 x 1 km background data (2021 reference year)[6] for annual mean concentrations of NOx and NO_2, for 2023, 2031 and 2040 were used. The future year background predictions assume that emissions reduce over time in line with Government forecasts. Given that the Defra background maps are provided up to and including 2040, there is no data for dates beyond that. As such, the 2040 background pollutant concentrations used for 2051 scenarios are likely to be conservative given Government policy, particularly reductions in $PM_{2.5}$. 'Sector removal' was not undertaken as not all roads within each background grid square were provided within the traffic data. Background data for NH_3 and N-dep for the 2020 mid-year were taken from the Air Pollution Information System (APIS)[7]. Unlike the Defra background data, the data from APIS require manipulation to predict background concentrations in future years;

[6] Department for Environment, Food and Rural Affairs (2024) *Local Air Quality Management Support Website: Background Maps 2021 Reference Year Background Maps*. https://laqm.defra.gov.uk/air-quality/air-quality-assessment/background-maps/.

[7] UK Centre for Ecology & Hydrology (2024) *Air Pollution Information System (APIS)*. https://www.apis.ac.uk/introduction.html.

Item	Notes
	this was done with reference to the JNCC's Nitrogen Futures publication[8]. For the assessment, the Nitrogen Futures 'business as usual' scenario was adopted whereby NH_3 background concentrations increase by approximately 0.08% year on year (up to 2030), and N-dep (which depends on NOx and NH_3 levels) decreases by approximately -1.04% year on year (up to 2030). There are no projections for NH_3 and N-dep widely available past 2030, so in the absence of suitable data, the data for 2030 were assumed to be representative of 2031 and 2051.
Grids	Specified points – transect receptor points from the ecological receptor boundary to 200m
Time varying emissions	Time varying emissions (.fac) were used based on a DfT national 7-day traffic profile.
Output	Long-term concentrations (µg/m^3) of NOx, 'NH3GRASSLAND'
Post-processing of model outputs	**Calculation of NO_2, NOx and NH_3 Concentrations** Model outputs (i.e., modelled road source contributed) NOx were adjusted by a factor of 4.8538 based model verification undertaken for the air quality assessment presented in Chapter 8 of the Environmental Statement. ▪ Total annual mean NOx (µg/m^3) = adjusted modelled road source contributed NOx (µg/m^3) + background NOx (µg/m^3) Defra NOx to NO_2 calculator[9] version 9.1 was used to determine road source contributed NO_2 and total annual mean NO_2 from adjusted modelled road source contributed NOx and background NO_2. For NH_3, no adjustment was undertaken as there were no appropriate monitoring data to allow model verification for this pollutant. ▪ Total annual mean NH_3 (µg/m^3) = modelled road source contributed NH_3 (µg/m^3) + background NH_3 (µg/m^3) **Calculation of N-dep** *Step 1 – calculate dry deposition fluxes:* ▪ Dry NO_2 deposition flux (µg/m^2/s) = road source contributed NO_2 (µg/m^3) * dry NO_2 deposition velocity for short vegetation (0.0015m/s) ▪ Dry NH_3 deposition flux (µg/m^2/s) = road source contributed NH_3 (µg/m^3) * dry NH_3 deposition velocity for short vegetation (0.02m/s) *Step 2 – convert dry deposition fluxes to dry deposition rates:* ▪ Dry N-dep due to NO_2 (kg/ha/yr) = dry NO_2 deposition flux (µg/m^2/s) * 96 ▪ Dry N-dep due to NH_3 (kg/ha/yr) = dry NH_3 deposition flux (µg/m^2/s) * 259.7 *Step 3 – calculate total dry deposition rate:* ▪ Total dry N-dep (kg/ha/yr) = dry N-dep due to NO_2 (kg/ha/yr) + dry N-dep due to NH_3 (kg/ha/yr) + background N-dep (kg/ha/yr)

[8] Joint Nature Conservation Committee (2020) *Nitrogen Futures*. https://jncc.gov.uk/our-work/nitrogen-futures/.
[9] Department for Environment, Food and Rural Affairs (2024) *Local Air Quality Management Support Website: NOx to NO_2 Calculator*. https://laqm.defra.gov.uk/air-quality/air-quality-assessment/nox-to-no2-calculator/.

RESULTS

Summary results are provided in **Table 3** (NOx), **Table 4** (NH_3) and **Table 5** (N-dep). Detailed results are provided in **Table 6** (NOx), **Table 7** (NH_3) and **Table 8** (N-dep). The HRA 1% screening threshold is not exceeded under any scenario. **Figure 1** shows the locations of the receptor transects.

Table 3 – Summary of NOx results

Transect	Annual mean NOx (CLvl = 30µg/m^3)									
	2031					2051				
	DS Max. conc.	Max. increase in-combination (DS vs DN)		Max. increase alone (DS vs DM)		DS Max. conc.	Max. increase in-combination (DS vs DN)		Max. increase alone (DS vs DM)	
1	9.44	0.082	0.27%	0.008	0.03%	7.63	0.024	0.08%	0.003	0.01%
2	10.02	0.133	0.44%	0.013	0.04%	7.83	0.039	0.13%	0.005	0.02%
3	9.76	0.111	0.37%	0.011	0.04%	7.74	0.032	0.11%	0.004	0.01%

Table 4 – Summary of NH_3 results

Transect	Annual mean NH_3 (CLvl = 1µg/m^3 for lower plants assumed)									
	2031					2051				
	DS Max. conc.	Max. increase in-combination (DS vs DN)		Max. increase alone (DS vs DM)		DS Max. conc.	Max. increase in-combination (DS vs DN)		Max. increase alone (DS vs DM)	
1	1.55	0.0031	0.313%	0.0003	0.031%	1.54	0.0023	0.233%	0.0003	0.029%
2	1.57	0.0047	0.468%	0.0005	0.047%	1.55	0.0035	0.349%	0.0004	0.043%
3	1.56	0.0040	0.396%	0.0004	0.040%	1.55	0.0030	0.295%	0.0004	0.037%

Table 5 – Summary of N-dep results

Transect	Annual mean N-dep (lower CLd = 10kg/ha/yr from APIS[7])									
	2031					2051				
	DS Max. conc.	Max. increase in-combination (DS vs DN)		Max. increase alone (DS vs DM)		DS Max. conc.	Max. increase in-combination (DS vs DN)		Max. increase alone (DS vs DM)	
1	14.22	0.022	0.22%	0.003	0.03%	14.13	0.014	0.14%	0.003	0.03%
2	14.36	0.034	0.34%	0.004	0.04%	14.22	0.021	0.21%	0.003	0.03%
3	14.30	0.029	0.29%	0.003	0.03%	14.18	0.018	0.18%	0.002	0.02%

Table 6 – Detailed NOx results

CLvl = 30µg/m³. All units µg/m³ unless stated otherwise.																	DS 2031 - DN 2031 (in-combination)		DS 2031 - DM 2031 (alone)		DS 2051 - DN 2051 (in-combination)		DS 2051 - DM 2051 (alone)	
ID (transect_ distance m into site)	x	y	1. 2023 Base Road NOx	1. 2023 Base Total NOx	2. 2031 DN Road NOx	2. 2031 DN Total NOx	3. DM 2031 Road NOx	3. DM 2031 Total NOx	4. DS 2031 Road NOx	4. DS 2031 Total NOx	5. 2051 DN Road NOx	5. 2051 DN Total NOx	6. DM 2051 Road NOx	6. DM 2051 Total NOx	7. 2051 DS Road NOx	7. 2051 DS Total NOx	4.-2. Δ NOx	(4.-2.)/CLvl % Δ Relative to CLvl	4.-3. Δ NOx	(4.-3.)/CLvl % Δ Relative to CLvl	7.-5. Δ NOx	(7.-5.)/CLvl % Δ Relative to CLvl	7.- 6. Δ NOx	(7.-6.)/CLvl % Δ Relative to CLvl
1_0	495634	270538	1.82	12.68	0.67	9.16	0.73	9.22	0.73	9.23	0.24	7.54	0.25	7.56	0.26	7.56	0.064	0.21%	0.006	0.02%	0.018	0.06%	0.002	0.01%
1_10	495632	270536	1.88	12.74	0.69	9.19	0.75	9.25	0.76	9.25	0.24	7.55	0.26	7.56	0.26	7.57	0.066	0.22%	0.007	0.02%	0.019	0.06%	0.002	0.01%
1_20	495625	270529	2.08	12.94	0.77	9.26	0.83	9.33	0.84	9.33	0.27	7.57	0.29	7.59	0.29	7.60	0.073	0.24%	0.007	0.02%	0.021	0.07%	0.003	0.01%
1_30	495618	270522	2.27	13.13	0.84	9.33	0.91	9.40	0.92	9.41	0.29	7.60	0.32	7.62	0.32	7.62	0.080	0.27%	0.008	0.03%	0.023	0.08%	0.003	0.01%
1_40	495611	270515	2.33	13.20	0.86	9.35	0.93	9.43	0.94	9.44	0.30	7.61	0.32	7.63	0.33	7.63	0.082	0.27%	0.008	0.03%	0.024	0.08%	0.003	0.01%
1_50	495603	270508	2.29	13.16	0.84	9.34	0.91	9.41	0.92	9.42	0.30	7.60	0.32	7.62	0.32	7.62	0.080	0.27%	0.008	0.03%	0.023	0.08%	0.003	0.01%
1_60	495596	270501	2.20	13.06	0.81	9.30	0.88	9.37	0.88	9.38	0.28	7.59	0.30	7.61	0.31	7.61	0.077	0.26%	0.008	0.03%	0.022	0.07%	0.003	0.01%
1_70	495589	270495	2.09	12.95	0.77	9.26	0.83	9.33	0.84	9.33	0.27	7.57	0.29	7.59	0.29	7.59	0.073	0.24%	0.007	0.02%	0.021	0.07%	0.003	0.01%
1_80	495582	270488	1.97	12.84	0.72	9.22	0.79	9.28	0.79	9.29	0.25	7.56	0.27	7.58	0.27	7.58	0.069	0.23%	0.007	0.02%	0.020	0.07%	0.003	0.01%
1_90	495575	270481	1.86	12.73	0.68	9.18	0.74	9.24	0.75	9.24	0.24	7.54	0.26	7.56	0.26	7.56	0.065	0.22%	0.007	0.02%	0.019	0.06%	0.002	0.01%
1_100	495567	270474	1.76	12.62	0.64	9.14	0.70	9.20	0.71	9.20	0.23	7.53	0.24	7.55	0.24	7.55	0.062	0.21%	0.006	0.02%	0.018	0.06%	0.002	0.01%
1_110	495560	270467	1.66	12.53	0.61	9.10	0.66	9.16	0.67	9.16	0.21	7.52	0.23	7.53	0.23	7.53	0.058	0.19%	0.006	0.02%	0.017	0.06%	0.002	0.01%
1_120	495553	270460	1.57	12.44	0.58	9.07	0.63	9.12	0.63	9.13	0.20	7.51	0.22	7.52	0.22	7.52	0.055	0.18%	0.006	0.02%	0.016	0.05%	0.002	0.01%
1_130	495546	270453	1.49	12.36	0.55	9.04	0.59	9.09	0.60	9.09	0.19	7.50	0.21	7.51	0.21	7.51	0.052	0.17%	0.005	0.02%	0.015	0.05%	0.002	0.01%
1_140	495539	270446	1.42	12.28	0.52	9.01	0.56	9.06	0.57	9.06	0.18	7.49	0.20	7.50	0.20	7.50	0.050	0.17%	0.005	0.02%	0.014	0.05%	0.002	0.01%
1_150	495531	270439	1.35	12.21	0.49	8.99	0.54	9.03	0.54	9.04	0.17	7.48	0.19	7.49	0.19	7.49	0.047	0.16%	0.005	0.02%	0.014	0.05%	0.002	0.01%
1_160	495524	270432	1.28	12.15	0.47	8.96	0.51	9.01	0.51	9.01	0.17	7.47	0.18	7.48	0.18	7.48	0.045	0.15%	0.005	0.02%	0.013	0.04%	0.002	0.01%
1_170	495517	270425	1.22	12.09	0.45	8.94	0.49	8.98	0.49	8.99	0.16	7.46	0.17	7.47	0.17	7.47	0.043	0.14%	0.004	0.01%	0.012	0.04%	0.002	0.01%
1_180	495510	270418	1.17	12.03	0.43	8.92	0.46	8.96	0.47	8.96	0.15	7.45	0.16	7.46	0.16	7.47	0.041	0.14%	0.004	0.01%	0.012	0.04%	0.001	0.00%
1_190	495502	270411	1.12	11.98	0.41	8.90	0.44	8.94	0.45	8.94	0.14	7.45	0.15	7.46	0.16	7.46	0.039	0.13%	0.004	0.01%	0.011	0.04%	0.001	0.00%
1_200	495495	270405	1.07	11.93	0.39	8.89	0.42	8.92	0.43	8.92	0.14	7.44	0.15	7.45	0.15	7.45	0.037	0.12%	0.004	0.01%	0.011	0.04%	0.001	0.00%
2_100	495848	270444	3.79	14.66	1.40	9.89	1.52	10.01	1.53	10.02	0.49	7.79	0.53	7.83	0.53	7.83	0.133	0.44%	0.013	0.04%	0.039	0.13%	0.005	0.02%
2_110	495853	270449	3.64	14.51	1.34	9.84	1.46	9.95	1.47	9.96	0.47	7.78	0.50	7.81	0.51	7.81	0.128	0.43%	0.013	0.04%	0.037	0.12%	0.005	0.02%
2_120	495860	270456	3.44	14.31	1.27	9.76	1.37	9.87	1.39	9.88	0.45	7.75	0.48	7.78	0.48	7.78	0.121	0.40%	0.012	0.04%	0.035	0.12%	0.004	0.01%
2_130	495868	270463	3.26	14.12	1.20	9.69	1.30	9.80	1.31	9.81	0.42	7.73	0.45	7.75	0.46	7.76	0.114	0.38%	0.012	0.04%	0.033	0.11%	0.004	0.01%
2_140	495875	270469	3.09	13.95	1.14	9.63	1.23	9.73	1.24	9.74	0.40	7.70	0.43	7.73	0.43	7.73	0.108	0.36%	0.011	0.04%	0.031	0.10%	0.004	0.01%
2_150	495882	270476	2.93	13.80	1.08	9.57	1.17	9.67	1.18	9.68	0.38	7.68	0.41	7.71	0.41	7.71	0.103	0.34%	0.010	0.03%	0.030	0.10%	0.004	0.01%

CLvl = 30µg/m³. All units µg/m³ unless stated otherwise.																	DS 2031 - DN 2031 (in-combination)		DS 2031 - DM 2031 (alone)		DS 2051 - DN 2051 (in-combination)		DS 2051 - DM 2051 (alone)	
ID (transect_ distance m into site)	x	y	1. 2023 Base Road NOx	1. 2023 Base Total NOx	2. 2031 DN Road NOx	2. 2031 DN Total NOx	3. DM 2031 Road NOx	3. DM 2031 Total NOx	4. DS 2031 Road NOx	4. DS 2031 Total NOx	5. 2051 DN Road NOx	5. 2051 DN Total NOx	6. DM 2051 Road NOx	6. DM 2051 Total NOx	7. 2051 DS Road NOx	7. 2051 DS Total NOx	4.-2. Δ NOx	(4.-2.)/CLvl % Δ Relative to CLvl	4.-3. Δ NOx	(4.-3.)/CLvl % Δ Relative to CLvl	7.-5. Δ NOx	(7.-5.)/CLvl % Δ Relative to CLvl	7.- 6. Δ NOx	(7.-6.)/CLvl % Δ Relative to CLvl
2_160	495890	270483	2.79	13.66	1.03	9.52	1.11	9.61	1.12	9.62	0.36	7.66	0.39	7.69	0.39	7.69	0.098	0.33%	0.010	0.03%	0.028	0.09%	0.004	0.01%
2_170	495897	270490	2.66	13.53	0.98	9.47	1.06	9.56	1.07	9.57	0.34	7.65	0.37	7.67	0.37	7.67	0.093	0.31%	0.009	0.03%	0.027	0.09%	0.003	0.01%
2_180	495904	270496	2.54	13.40	0.93	9.43	1.01	9.51	1.02	9.52	0.33	7.63	0.35	7.65	0.35	7.66	0.089	0.30%	0.009	0.03%	0.026	0.09%	0.003	0.01%
2_190	495912	270503	2.43	13.29	0.89	9.39	0.97	9.46	0.98	9.47	0.31	7.62	0.34	7.64	0.34	7.64	0.085	0.28%	0.009	0.03%	0.025	0.08%	0.003	0.01%
2_200	495919	270510	2.32	13.19	0.85	9.35	0.93	9.42	0.94	9.43	0.30	7.60	0.32	7.62	0.32	7.63	0.082	0.27%	0.008	0.03%	0.024	0.08%	0.003	0.01%
3_120	495701	270661	3.15	14.02	1.16	9.65	1.26	9.75	1.27	9.76	0.41	7.71	0.44	7.74	0.44	7.74	0.111	0.37%	0.011	0.04%	0.032	0.11%	0.004	0.01%
3_130	495707	270667	3.04	13.90	1.11	9.61	1.21	9.71	1.22	9.72	0.39	7.70	0.42	7.72	0.42	7.73	0.106	0.35%	0.011	0.04%	0.031	0.10%	0.004	0.01%
3_140	495715	270674	2.91	13.78	1.07	9.56	1.16	9.66	1.17	9.67	0.38	7.68	0.40	7.71	0.41	7.71	0.102	0.34%	0.010	0.03%	0.029	0.10%	0.004	0.01%
3_150	495722	270680	2.79	13.66	1.03	9.52	1.11	9.61	1.12	9.62	0.36	7.66	0.39	7.69	0.39	7.69	0.098	0.33%	0.010	0.03%	0.028	0.09%	0.004	0.01%
3_160	495730	270687	2.68	13.55	0.98	9.48	1.07	9.56	1.08	9.57	0.35	7.65	0.37	7.67	0.37	7.68	0.094	0.31%	0.010	0.03%	0.027	0.09%	0.003	0.01%
3_170	495737	270694	2.58	13.44	0.95	9.44	1.03	9.52	1.04	9.53	0.33	7.64	0.36	7.66	0.36	7.66	0.090	0.30%	0.009	0.03%	0.026	0.09%	0.003	0.01%
3_180	495744	270700	2.48	13.34	0.91	9.40	0.99	9.48	1.00	9.49	0.32	7.62	0.34	7.65	0.35	7.65	0.087	0.29%	0.009	0.03%	0.025	0.08%	0.003	0.01%
3_190	495752	270707	2.38	13.25	0.88	9.37	0.95	9.45	0.96	9.45	0.31	7.61	0.33	7.63	0.33	7.64	0.083	0.28%	0.008	0.03%	0.024	0.08%	0.003	0.01%
3_200	495759	270714	2.30	13.16	0.84	9.34	0.92	9.41	0.92	9.42	0.30	7.60	0.32	7.62	0.32	7.62	0.080	0.27%	0.008	0.03%	0.023	0.08%	0.003	0.01%

Table 7 - Detailed NH_3 results

CLvl = 1µg/m³. All units µg/m³ unless stated otherwise.																	DS 2031 - DN 2031 (in-combination)		DS 2031 - DM 2031 (alone)		DS 2051 - DN 2051 (in-combination)		DS 2051 - DM 2051 (alone)	
ID (transect_ distance m into site)	x	y	1. 2023 Base Road NH3	1. 2023 Base Total NH3	2. 2031 DN Road NH3	2. 2031 DN Total NH3	3. DM 2031 Road NH3	3. DM 2031 Total NH3	4. DS 2031 Road NH3	4. DS 2031 Total NH3	5. 2051 DN Road NH3	5. 2051 DN Total NH3	6. DM 2051 Road NH3	6. DM 2051 Total NH3	7. 2051 DS Road NH3	7. 2051 DS Total NH3	4.-2. Δ NH3	(4.-2.)/CLvl % Δ Relative to CLvl	4.-3. Δ NH3	(4.-3.)/CLvl % Δ Relative to CLvl	7.-5. Δ NH3	(7.-5.)/CLvl % Δ Relative to CLvl	7.- 6. Δ NH3	(7.-6.)/CLvl % Δ Relative to CLvl
1_10	495632	270536	0.03	1.53	0.03	1.54	0.03	1.54	0.03	1.54	0.02	1.53	0.02	1.53	0.02	1.53	0.0024	0.236%	0.0002	0.024%	0.0018	0.176%	0.0002	0.022%
1_10	495632	270536	0.03	1.53	0.03	1.54	0.03	1.54	0.03	1.54	0.02	1.53	0.02	1.53	0.02	1.53	0.0024	0.236%	0.0002	0.024%	0.0018	0.176%	0.0002	0.022%
1_20	495625	270529	0.03	1.53	0.03	1.54	0.03	1.54	0.03	1.54	0.02	1.53	0.02	1.53	0.02	1.53	0.0027	0.269%	0.0003	0.027%	0.0020	0.201%	0.0002	0.025%
1_30	495618	270522	0.04	1.54	0.03	1.54	0.03	1.55	0.04	1.55	0.02	1.54	0.03	1.54	0.03	1.54	0.0030	0.301%	0.0003	0.030%	0.0022	0.225%	0.0003	0.028%
1_40	495611	270515	0.04	1.54	0.03	1.54	0.04	1.55	0.04	1.55	0.03	1.54	0.03	1.54	0.03	1.54	0.0031	0.313%	0.0003	0.031%	0.0023	0.233%	0.0003	0.029%
1_50	495603	270508	0.04	1.54	0.03	1.54	0.04	1.55	0.04	1.55	0.02	1.54	0.03	1.54	0.03	1.54	0.0031	0.307%	0.0003	0.031%	0.0023	0.229%	0.0003	0.028%
1_60	495596	270501	0.03	1.54	0.03	1.54	0.03	1.54	0.03	1.55	0.02	1.53	0.03	1.54	0.03	1.54	0.0029	0.292%	0.0003	0.029%	0.0022	0.218%	0.0003	0.027%
1_70	495589	270495	0.03	1.53	0.03	1.54	0.03	1.54	0.03	1.54	0.02	1.53	0.02	1.54	0.02	1.54	0.0028	0.275%	0.0003	0.028%	0.0020	0.205%	0.0003	0.025%
1_80	495582	270488	0.03	1.53	0.03	1.54	0.03	1.54	0.03	1.54	0.02	1.53	0.02	1.53	0.02	1.53	0.0026	0.257%	0.0003	0.026%	0.0019	0.192%	0.0002	0.024%
1_90	495575	270481	0.03	1.53	0.03	1.54	0.03	1.54	0.03	1.54	0.02	1.53	0.02	1.53	0.02	1.53	0.0024	0.241%	0.0002	0.024%	0.0018	0.179%	0.0002	0.022%
1_100	495567	270474	0.03	1.53	0.02	1.53	0.03	1.54	0.03	1.54	0.02	1.53	0.02	1.53	0.02	1.53	0.0022	0.225%	0.0002	0.023%	0.0017	0.167%	0.0002	0.021%
1_110	495560	270467	0.02	1.53	0.02	1.53	0.02	1.54	0.02	1.54	0.02	1.53	0.02	1.53	0.02	1.53	0.0021	0.211%	0.0002	0.021%	0.0016	0.157%	0.0002	0.019%
1_120	495553	270460	0.02	1.52	0.02	1.53	0.02	1.53	0.02	1.53	0.02	1.53	0.02	1.53	0.02	1.53	0.0020	0.197%	0.0002	0.020%	0.0015	0.147%	0.0002	0.018%
1_130	495546	270453	0.02	1.52	0.02	1.53	0.02	1.53	0.02	1.53	0.01	1.53	0.02	1.53	0.02	1.53	0.0019	0.185%	0.0002	0.019%	0.0014	0.138%	0.0002	0.017%
1_140	495539	270446	0.02	1.52	0.02	1.53	0.02	1.53	0.02	1.53	0.01	1.53	0.02	1.53	0.02	1.53	0.0017	0.174%	0.0002	0.017%	0.0013	0.130%	0.0002	0.016%
1_150	495531	270439	0.02	1.52	0.02	1.53	0.02	1.53	0.02	1.53	0.01	1.52	0.01	1.53	0.01	1.53	0.0016	0.164%	0.0002	0.016%	0.0012	0.122%	0.0002	0.015%
1_160	495524	270432	0.02	1.52	0.02	1.53	0.02	1.53	0.02	1.53	0.01	1.52	0.01	1.52	0.01	1.52	0.0016	0.155%	0.0002	0.016%	0.0012	0.115%	0.0001	0.014%
1_170	495517	270425	0.02	1.52	0.02	1.53	0.02	1.53	0.02	1.53	0.01	1.52	0.01	1.52	0.01	1.52	0.0015	0.147%	0.0001	0.015%	0.0011	0.109%	0.0001	0.014%
1_180	495510	270418	0.02	1.52	0.01	1.53	0.02	1.53	0.02	1.53	0.01	1.52	0.01	1.52	0.01	1.52	0.0014	0.139%	0.0001	0.014%	0.0010	0.103%	0.0001	0.013%
1_190	495502	270411	0.02	1.52	0.01	1.53	0.02	1.53	0.02	1.53	0.01	1.52	0.01	1.52	0.01	1.52	0.0013	0.132%	0.0001	0.013%	0.0010	0.098%	0.0001	0.012%
1_200	495495	270405	0.01	1.52	0.01	1.52	0.01	1.53	0.01	1.53	0.01	1.52	0.01	1.52	0.01	1.52	0.0013	0.125%	0.0001	0.013%	0.0009	0.093%	0.0001	0.012%
2_100	495848	270444	0.06	1.56	0.05	1.56	0.05	1.57	0.05	1.57	0.04	1.55	0.04	1.55	0.04	1.55	0.0047	0.468%	0.0005	0.047%	0.0035	0.349%	0.0004	0.043%
2_110	495853	270449	0.05	1.55	0.05	1.56	0.05	1.56	0.05	1.56	0.04	1.55	0.04	1.55	0.04	1.55	0.0045	0.446%	0.0004	0.045%	0.0033	0.333%	0.0004	0.041%
2_120	495860	270456	0.05	1.55	0.04	1.56	0.05	1.56	0.05	1.56	0.03	1.54	0.04	1.55	0.04	1.55	0.0042	0.418%	0.0004	0.042%	0.0031	0.312%	0.0004	0.039%

CLvl = 1µg/m³. All units µg/m³ unless stated otherwise.																	DS 2031 - DN 2031 (in-combination)		DS 2031 - DM 2031 (alone)		DS 2051 - DN 2051 (in-combination)		DS 2051 - DM 2051 (alone)	
ID (transect_ distance m into site)	x	y	1. 2023 Base Road NH3	1. 2023 Base Total NH3	2. 2031 DN Road NH3	2. 2031 DN Total NH3	3. DM 2031 Road NH3	3. DM 2031 Total NH3	4. DS 2031 Road NH3	4. DS 2031 Total NH3	5. 2051 DN Road NH3	5. 2051 DN Total NH3	6. DM 2051 Road NH3	6. DM 2051 Total NH3	7. 2051 DS Road NH3	7. 2051 DS Total NH3	4.-2. Δ NH3	(4.-2.)/CLvl % Δ Relative to CLvl	4.-3. Δ NH3	(4.-3.)/CLvl % Δ Relative to CLvl	7.-5. Δ NH3	(7.-5.)/CLvl % Δ Relative to CLvl	7.- 6. Δ NH3	(7.-6.)/CLvl % Δ Relative to CLvl
2_130	495868	270463	0.05	1.55	0.04	1.55	0.05	1.56	0.05	1.56	0.03	1.54	0.03	1.55	0.03	1.55	0.0039	0.391%	0.0004	0.039%	0.0029	0.292%	0.0004	0.036%
2_140	495875	270469	0.04	1.54	0.04	1.55	0.04	1.55	0.04	1.55	0.03	1.54	0.03	1.54	0.03	1.54	0.0037	0.368%	0.0004	0.037%	0.0027	0.274%	0.0003	0.034%
2_150	495882	270476	0.04	1.54	0.04	1.55	0.04	1.55	0.04	1.55	0.03	1.54	0.03	1.54	0.03	1.54	0.0035	0.347%	0.0003	0.035%	0.0026	0.258%	0.0003	0.032%
2_160	495890	270483	0.04	1.54	0.03	1.55	0.04	1.55	0.04	1.55	0.03	1.54	0.03	1.54	0.03	1.54	0.0033	0.327%	0.0003	0.033%	0.0024	0.244%	0.0003	0.030%
2_170	495897	270490	0.04	1.54	0.03	1.54	0.04	1.55	0.04	1.55	0.03	1.54	0.03	1.54	0.03	1.54	0.0031	0.310%	0.0003	0.031%	0.0023	0.231%	0.0003	0.029%
2_180	495904	270496	0.03	1.54	0.03	1.54	0.03	1.54	0.03	1.55	0.02	1.53	0.03	1.54	0.03	1.54	0.0029	0.293%	0.0003	0.029%	0.0022	0.219%	0.0003	0.027%
2_190	495912	270503	0.03	1.53	0.03	1.54	0.03	1.54	0.03	1.54	0.02	1.53	0.02	1.54	0.02	1.54	0.0028	0.279%	0.0003	0.028%	0.0021	0.208%	0.0003	0.026%
2_200	495919	270510	0.03	1.53	0.03	1.54	0.03	1.54	0.03	1.54	0.02	1.53	0.02	1.53	0.02	1.53	0.0027	0.265%	0.0003	0.027%	0.0020	0.197%	0.0002	0.025%
3_120	495701	270661	0.05	1.55	0.04	1.55	0.05	1.56	0.05	1.56	0.03	1.54	0.03	1.55	0.04	1.55	0.0040	0.396%	0.0004	0.040%	0.0030	0.295%	0.0004	0.037%
3_130	495707	270667	0.04	1.55	0.04	1.55	0.04	1.55	0.04	1.55	0.03	1.54	0.03	1.54	0.03	1.54	0.0038	0.377%	0.0004	0.038%	0.0028	0.281%	0.0003	0.035%
3_140	495715	270674	0.04	1.54	0.04	1.55	0.04	1.55	0.04	1.55	0.03	1.54	0.03	1.54	0.03	1.54	0.0036	0.358%	0.0004	0.036%	0.0027	0.267%	0.0003	0.033%
3_150	495722	270680	0.04	1.54	0.04	1.55	0.04	1.55	0.04	1.55	0.03	1.54	0.03	1.54	0.03	1.54	0.0034	0.340%	0.0003	0.034%	0.0025	0.253%	0.0003	0.031%
3_160	495730	270687	0.04	1.54	0.03	1.55	0.04	1.55	0.04	1.55	0.03	1.54	0.03	1.54	0.03	1.54	0.0032	0.323%	0.0003	0.032%	0.0024	0.240%	0.0003	0.030%
3_170	495737	270694	0.04	1.54	0.03	1.54	0.04	1.55	0.04	1.55	0.02	1.54	0.03	1.54	0.03	1.54	0.0031	0.307%	0.0003	0.031%	0.0023	0.229%	0.0003	0.028%
3_180	495744	270700	0.03	1.54	0.03	1.54	0.03	1.54	0.03	1.55	0.02	1.53	0.03	1.54	0.03	1.54	0.0029	0.292%	0.0003	0.029%	0.0022	0.218%	0.0003	0.027%
3_190	495752	270707	0.03	1.53	0.03	1.54	0.03	1.54	0.03	1.54	0.02	1.53	0.02	1.54	0.02	1.54	0.0028	0.279%	0.0003	0.028%	0.0021	0.208%	0.0003	0.026%
3_200	495759	270714	0.03	1.53	0.03	1.54	0.03	1.54	0.03	1.54	0.02	1.53	0.02	1.53	0.02	1.53	0.0027	0.266%	0.0003	0.027%	0.0020	0.198%	0.0002	0.025%

Table 8 – Detailed N-dep results

Lower Cld = 10kg/ha/yr. Low/short vegetation assumed. All units kg/ha/yr unless stated otherwise																													DS 2031 - DN 2031 (in-combination)		DS 2031 - DM 2031 (alone)		DS 2051 - DN 2051 (in-combination)		DS 2051 - DM 2051 (alone)	
ID (transect_ distance m into site)	x	y	1. 2023 Base Rd N-Dep from NO2	1. 2023 Base Rd N-Dep from NH3	1. 2023 Base Total Rd N-Dep	1. 2023 Base Total N-Dep	2. 2031 DN Rd N-Dep from NO2	2. 2031 DN Rd N-Dep from NH3	2. 2031 DN Total Rd N-Dep	2. 2031 DN Total N-Dep	3. 2031 DM Rd N-Dep from NO2	3. 2031 DM Rd N-Dep from NH3	3. 2031 DM Total Rd N-Dep	3. 2051 DM Total N-Dep	4. 2031 DS Rd N-Dep from NO2	4. 2031 DS Rd N-Dep from NH3	4. 2031 DS Total Rd N-Dep	4. 2031 DS Total N-Dep	5. 2051 DN Rd N-Dep from NO2	5. 2051 DN Rd N-Dep from NH3	5. 2051 DN Total Rd N-Dep	5. 2051 DN Total N-Dep	6. 2051 DM Rd N-Dep from NO2	6. 2051 DM Rd N-Dep from NH3	6. 2051 DM Total Rd N-Dep	6. 2051 DM Total N-Dep	7. 2051 DS Rd N-Dep from NO2	7. 2051 DS Rd N-Dep from NH3	7. 2051 DS Total Rd N-Dep	7. 2051 DS Total N-Dep	4.- 2. Δ N-Dep	(4.- 2.)/CLd % Δ	4.-3. Δ N-Dep	(4.- 3.)/CLd % Δ	7.- 5. Δ N-Dep	(7.- 5.)/CLd % Δ	7.-6. Δ N-Dep	(7.- 6.)/CLd % Δ
1_0	495634	270538	0.13	0.14	0.27	15.51	0.05	0.13	0.17	14.14	0.05	0.14	0.19	14.16	0.05	0.14	0.19	14.16	0.02	0.10	0.11	14.08	0.02	0.10	0.12	14.09	0.02	0.10	0.12	14.09	0.016	0.16%	0.001	0.01%	0.010	0.10%	0.001	0.01%
1_10	495632	270536	0.13	0.14	0.28	15.52	0.05	0.13	0.18	14.15	0.05	0.14	0.20	14.16	0.05	0.14	0.20	14.16	0.02	0.10	0.12	14.08	0.02	0.11	0.13	14.09	0.02	0.11	0.13	14.09	0.017	0.17%	0.001	0.01%	0.011	0.11%	0.001	0.01%
1_20	495625	270529	0.15	0.16	0.31	15.55	0.05	0.15	0.20	14.17	0.06	0.16	0.22	14.19	0.06	0.16	0.22	14.19	0.02	0.11	0.13	14.10	0.02	0.12	0.14	14.11	0.02	0.12	0.14	14.11	0.020	0.20%	0.001	0.01%	0.012	0.12%	0.001	0.01%
1_30	495618	270522	0.16	0.18	0.34	15.58	0.06	0.17	0.23	14.19	0.07	0.18	0.25	14.21	0.07	0.18	0.25	14.22	0.02	0.13	0.15	14.12	0.02	0.14	0.16	14.13	0.02	0.14	0.16	14.13	0.021	0.21%	0.002	0.02%	0.013	0.13%	0.001	0.01%
1_40	495611	270515	0.16	0.19	0.36	15.59	0.06	0.17	0.23	14.20	0.07	0.19	0.26	14.22	0.07	0.19	0.26	14.22	0.02	0.13	0.15	14.12	0.02	0.14	0.17	14.13	0.02	0.14	0.17	14.13	0.022	0.22%	0.002	0.02%	0.014	0.14%	0.002	0.02%
1_50	495603	270508	0.16	0.19	0.35	15.59	0.06	0.17	0.23	14.20	0.07	0.18	0.25	14.22	0.07	0.19	0.25	14.22	0.02	0.13	0.15	14.12	0.02	0.14	0.16	14.13	0.02	0.14	0.16	14.13	0.022	0.22%	0.002	0.02%	0.013	0.13%	0.001	0.01%
1_60	495596	270501	0.16	0.18	0.33	15.57	0.06	0.16	0.22	14.19	0.06	0.18	0.24	14.21	0.06	0.18	0.24	14.21	0.02	0.12	0.14	14.11	0.02	0.13	0.15	14.12	0.02	0.13	0.16	14.12	0.020	0.20%	0.002	0.02%	0.013	0.13%	0.001	0.01%
1_70	495589	270495	0.15	0.17	0.32	15.55	0.05	0.15	0.21	14.17	0.06	0.16	0.23	14.19	0.06	0.17	0.23	14.19	0.02	0.12	0.13	14.10	0.02	0.12	0.14	14.11	0.02	0.13	0.15	14.11	0.020	0.20%	0.001	0.01%	0.012	0.12%	0.001	0.01%
1_80	495582	270488	0.14	0.16	0.30	15.54	0.05	0.14	0.19	14.16	0.06	0.15	0.21	14.18	0.06	0.16	0.21	14.18	0.02	0.11	0.13	14.09	0.02	0.12	0.14	14.10	0.02	0.12	0.14	14.10	0.019	0.19%	0.003	0.03%	0.011	0.11%	0.003	0.03%
1_90	495575	270481	0.13	0.15	0.28	15.52	0.05	0.13	0.18	14.15	0.05	0.14	0.20	14.16	0.05	0.15	0.20	14.17	0.02	0.10	0.12	14.08	0.02	0.11	0.13	14.09	0.02	0.11	0.13	14.10	0.018	0.18%	0.003	0.03%	0.011	0.11%	0.001	0.01%
1_100	495567	270474	0.12	0.14	0.26	15.50	0.05	0.12	0.17	14.14	0.05	0.13	0.19	14.15	0.05	0.14	0.19	14.15	0.02	0.09	0.11	14.08	0.02	0.10	0.12	14.09	0.02	0.10	0.12	14.09	0.016	0.16%	0.001	0.01%	0.010	0.10%	0.001	0.01%
1_110	495560	270467	0.12	0.13	0.25	15.49	0.04	0.12	0.16	14.13	0.05	0.13	0.17	14.14	0.05	0.13	0.18	14.14	0.02	0.09	0.10	14.07	0.02	0.10	0.11	14.08	0.02	0.10	0.11	14.08	0.015	0.15%	0.003	0.03%	0.008	0.08%	0.001	0.01%
1_120	495553	270460	0.11	0.12	0.23	15.47	0.04	0.11	0.15	14.12	0.04	0.12	0.16	14.13	0.05	0.12	0.17	14.13	0.01	0.08	0.10	14.06	0.02	0.09	0.11	14.07	0.02	0.09	0.11	14.07	0.015	0.15%	0.002	0.02%	0.009	0.09%	0.001	0.01%
1_130	495546	270453	0.11	0.11	0.22	15.46	0.04	0.10	0.14	14.11	0.04	0.11	0.15	14.12	0.04	0.11	0.16	14.12	0.01	0.08	0.09	14.06	0.01	0.08	0.10	14.07	0.01	0.08	0.10	14.07	0.014	0.14%	0.001	0.01%	0.007	0.07%	0.001	0.01%
1_140	495539	270446	0.10	0.11	0.21	15.45	0.04	0.10	0.13	14.10	0.04	0.10	0.14	14.11	0.04	0.11	0.15	14.11	0.01	0.07	0.09	14.05	0.01	0.08	0.09	14.06	0.01	0.08	0.09	14.06	0.013	0.13%	0.002	0.02%	0.008	0.08%	0.001	0.01%
1_150	495531	270439	0.10	0.10	0.20	15.43	0.04	0.09	0.13	14.09	0.04	0.10	0.14	14.10	0.04	0.10	0.14	14.10	0.01	0.07	0.08	14.05	0.01	0.07	0.09	14.05	0.01	0.08	0.09	14.05	0.011	0.11%	0.001	0.01%	0.006	0.06%	0.001	0.01%
1_160	495524	270432	0.09	0.10	0.19	15.43	0.03	0.09	0.12	14.09	0.04	0.09	0.13	14.10	0.04	0.09	0.13	14.10	0.01	0.06	0.08	14.04	0.01	0.07	0.08	14.05	0.01	0.07	0.08	14.05	0.011	0.11%	0.001	0.01%	0.007	0.07%	0.001	0.01%
1_170	495517	270425	0.09	0.09	0.18	15.42	0.03	0.08	0.11	14.08	0.03	0.09	0.12	14.09	0.04	0.09	0.12	14.09	0.01	0.06	0.07	14.04	0.01	0.07	0.08	14.04	0.01	0.07	0.08	14.05	0.011	0.11%	0.002	0.02%	0.006	0.06%	0.001	0.01%
1_180	495510	270418	0.08	0.09	0.17	15.41	0.03	0.08	0.11	14.08	0.03	0.08	0.12	14.08	0.03	0.08	0.12	14.09	0.01	0.06	0.07	14.04	0.01	0.06	0.07	14.04	0.01	0.06	0.08	14.04	0.010	0.10%	0.002	0.02%	0.007	0.07%	0.001	0.01%
1_190	495502	270411	0.08	0.08	0.16	15.40	0.03	0.07	0.10	14.07	0.03	0.08	0.11	14.08	0.03	0.08	0.11	14.08	0.01	0.06	0.07	14.03	0.01	0.06	0.07	14.04	0.01	0.06	0.07	14.04	0.010	0.10%	0.002	0.02%	0.007	0.07%	0.001	0.01%
1_200	495495	270405	0.07	0.08	0.15	15.39	0.03	0.07	0.10	14.06	0.03	0.07	0.11	14.07	0.03	0.08	0.11	14.07	0.01	0.05	0.06	14.03	0.01	0.06	0.07	14.03	0.01	0.06	0.07	14.03	0.009	0.09%	0.002	0.02%	0.005	0.05%	0.001	0.01%
2_100	495848	270444	0.27	0.29	0.55	15.79	0.10	0.26	0.36	14.33	0.11	0.28	0.39	14.36	0.11	0.28	0.39	14.36	0.03	0.20	0.23	14.20	0.04	0.21	0.25	14.22	0.04	0.22	0.25	14.22	0.034	0.34%	0.004	0.04%	0.021	0.21%	0.002	0.02%
2_110	495853	270449	0.26	0.27	0.53	15.77	0.10	0.25	0.34	14.31	0.11	0.27	0.37	14.34	0.11	0.27	0.38	14.34	0.03	0.19	0.22	14.19	0.04	0.20	0.24	14.21	0.04	0.21	0.24	14.21	0.033	0.33%	0.004	0.04%	0.020	0.20%	0.002	0.02%

Lower CId = 10kg/ha/yr. Low/short vegetation assumed. All units kg/ha/yr unless stated otherwise																														DS 2031 - DN 2031 (in-combination)		DS 2031 - DM 2031 (alone)		DS 2051 - DN 2051 (in-combination)		DS 2051 - DM 2051 (alone)	
ID (transect_ distance m into site)	x	y	1. 2023 Base Rd N-Dep from NO2	1. 2023 Base Rd N-Dep from NH3	1. 2023 Base Total Rd N-Dep	1. 2023 Base Total N-Dep	2. 2031 DN Rd N-Dep from NO2	2. 2031 DN Rd N-Dep from NH3	2. 2031 DN Total Rd N-Dep	2. 2031 DN Total N-Dep	3. 2031 DM Rd N-Dep from NO2	3. 2031 DM Rd N-Dep from NH3	3. 2031 DM Total Rd N-Dep	3. 2051 DM Total N-Dep	4. 2031 DS Rd N-Dep from NO2	4. 2031 DS Rd N-Dep from NH3	4. 2031 DS Total Rd N-Dep	4. 2031 DS Total N-Dep	5. 2051 DN Rd N-Dep from NO2	5. 2051 DN Rd N-Dep from NH3	5. 2051 DN Total Rd N-Dep	5. 2051 DN Total N-Dep	6. 2051 DM Rd N-Dep from NO2	6. 2051 DM Rd N-Dep from NH3	6. 2051 DM Total Rd N-Dep	6. 2051 DM Total N-Dep	7. 2051 DS Rd N-Dep from NO2	7. 2051 DS Rd N-Dep from NH3	7. 2051 DS Total Rd N-Dep	7. 2051 DS Total N-Dep	4.- 2. Δ N-Dep	(4.- 2.)/CLd % Δ	4.-3. Δ N-Dep	(4.- 3.)/CLd % Δ	7.- 5. Δ N-Dep	(7.- 5.)/CLd % Δ	7.-6. Δ N-Dep	(7.- 6.)/CLd % Δ
2_120	495860	270456	0.24	0.26	0.50	15.74	0.09	0.23	0.32	14.29	0.10	0.25	0.35	14.32	0.10	0.25	0.35	14.32	0.03	0.18	0.21	14.17	0.03	0.19	0.22	14.19	0.03	0.19	0.23	14.19	0.032	0.32%	0.004	0.04%	0.019	0.19%	0.002	0.02%
2_130	495868	270463	0.23	0.24	0.47	15.71	0.09	0.22	0.30	14.27	0.09	0.23	0.33	14.30	0.10	0.24	0.33	14.30	0.03	0.16	0.20	14.16	0.03	0.18	0.21	14.18	0.03	0.18	0.21	14.18	0.029	0.29%	0.003	0.03%	0.018	0.18%	0.003	0.03%
2_140	495875	270469	0.22	0.23	0.44	15.68	0.08	0.20	0.29	14.25	0.09	0.22	0.31	14.28	0.09	0.22	0.31	14.28	0.03	0.15	0.18	14.15	0.03	0.17	0.20	14.16	0.03	0.17	0.20	14.17	0.026	0.26%	0.002	0.02%	0.016	0.16%	0.002	0.02%
2_150	495882	270476	0.21	0.21	0.42	15.66	0.08	0.19	0.27	14.24	0.08	0.21	0.29	14.26	0.08	0.21	0.29	14.26	0.03	0.15	0.17	14.14	0.03	0.16	0.19	14.15	0.03	0.16	0.19	14.15	0.025	0.25%	0.002	0.02%	0.015	0.15%	0.002	0.02%
2_160	495890	270483	0.20	0.20	0.40	15.64	0.07	0.18	0.25	14.22	0.08	0.20	0.28	14.24	0.08	0.20	0.28	14.25	0.03	0.14	0.16	14.13	0.03	0.15	0.18	14.14	0.03	0.15	0.18	14.14	0.024	0.24%	0.002	0.02%	0.014	0.14%	0.002	0.02%
2_170	495897	270490	0.19	0.19	0.38	15.62	0.07	0.17	0.24	14.21	0.08	0.19	0.26	14.23	0.08	0.19	0.26	14.23	0.02	0.13	0.15	14.12	0.03	0.14	0.17	14.13	0.03	0.14	0.17	14.13	0.023	0.23%	0.003	0.03%	0.013	0.13%	0.001	0.01%
2_180	495904	270496	0.18	0.18	0.36	15.60	0.07	0.16	0.23	14.20	0.07	0.18	0.25	14.22	0.07	0.18	0.25	14.22	0.02	0.12	0.15	14.11	0.02	0.13	0.16	14.12	0.03	0.13	0.16	14.13	0.021	0.21%	0.002	0.02%	0.014	0.14%	0.003	0.03%
2_190	495912	270503	0.17	0.17	0.34	15.58	0.06	0.15	0.22	14.19	0.07	0.17	0.24	14.20	0.07	0.17	0.24	14.21	0.02	0.12	0.14	14.11	0.02	0.13	0.15	14.12	0.02	0.13	0.15	14.12	0.020	0.20%	0.001	0.01%	0.012	0.12%	0.001	0.01%
2_200	495919	270510	0.16	0.16	0.33	15.57	0.06	0.15	0.21	14.18	0.07	0.16	0.23	14.19	0.07	0.16	0.23	14.19	0.02	0.11	0.13	14.10	0.02	0.12	0.14	14.11	0.02	0.12	0.14	14.11	0.020	0.20%	0.001	0.01%	0.012	0.12%	0.001	0.01%
3_120	495701	270661	0.22	0.24	0.46	15.70	0.08	0.22	0.30	14.27	0.09	0.24	0.33	14.29	0.09	0.24	0.33	14.30	0.03	0.17	0.20	14.16	0.03	0.18	0.21	14.18	0.03	0.18	0.21	14.18	0.029	0.29%	0.003	0.03%	0.018	0.18%	0.002	0.02%
3_130	495707	270667	0.21	0.23	0.44	15.68	0.08	0.21	0.29	14.26	0.09	0.23	0.31	14.28	0.09	0.23	0.32	14.28	0.03	0.16	0.19	14.15	0.03	0.17	0.20	14.17	0.03	0.17	0.20	14.17	0.027	0.27%	0.002	0.02%	0.017	0.17%	0.002	0.02%
3_140	495715	270674	0.20	0.22	0.42	15.66	0.08	0.20	0.28	14.24	0.08	0.21	0.30	14.26	0.08	0.22	0.30	14.27	0.03	0.15	0.18	14.14	0.03	0.16	0.19	14.16	0.03	0.16	0.19	14.16	0.026	0.26%	0.003	0.03%	0.015	0.15%	0.002	0.02%
3_150	495722	270680	0.20	0.21	0.40	15.64	0.07	0.19	0.26	14.23	0.08	0.20	0.28	14.25	0.08	0.21	0.29	14.25	0.03	0.14	0.17	14.14	0.03	0.15	0.18	14.15	0.03	0.16	0.18	14.15	0.025	0.25%	0.002	0.02%	0.015	0.15%	0.002	0.02%
3_160	495730	270687	0.19	0.20	0.39	15.63	0.07	0.18	0.25	14.22	0.08	0.19	0.27	14.24	0.08	0.19	0.27	14.24	0.02	0.14	0.16	14.13	0.03	0.15	0.17	14.14	0.03	0.15	0.17	14.14	0.024	0.24%	0.002	0.02%	0.014	0.14%	0.002	0.02%
3_170	495737	270694	0.18	0.19	0.37	15.61	0.07	0.17	0.24	14.20	0.07	0.18	0.26	14.23	0.07	0.19	0.26	14.23	0.02	0.13	0.15	14.12	0.03	0.14	0.17	14.13	0.03	0.14	0.17	14.13	0.023	0.23%	0.002	0.02%	0.015	0.15%	0.001	0.01%
3_180	495744	270700	0.17	0.18	0.35	15.59	0.07	0.16	0.23	14.19	0.07	0.18	0.25	14.21	0.07	0.18	0.25	14.22	0.02	0.12	0.15	14.11	0.02	0.13	0.16	14.12	0.02	0.13	0.16	14.13	0.021	0.21%	0.002	0.02%	0.013	0.13%	0.001	0.01%
3_190	495752	270707	0.17	0.17	0.34	15.58	0.06	0.15	0.22	14.18	0.07	0.17	0.24	14.20	0.07	0.17	0.24	14.20	0.02	0.12	0.14	14.11	0.02	0.13	0.15	14.12	0.02	0.13	0.15	14.12	0.020	0.20%	0.001	0.01%	0.012	0.12%	0.001	0.01%
3_200	495759	270714	0.16	0.16	0.32	15.56	0.06	0.15	0.21	14.17	0.07	0.16	0.23	14.19	0.07	0.16	0.23	14.19	0.02	0.11	0.13	14.10	0.02	0.12	0.14	14.11	0.02	0.12	0.14	14.11	0.020	0.20%	0.001	0.01%	0.012	0.12%	0.001	0.01%

WSP House
70 Chancery Lane
London
WC2A 1AF

wsp.com

PUBLIC