Symmetry Park, Ardley

Environmental Statement – Chapter 6 Appendices

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6.1 Road Traffic Emissions Assessment Methodology

6.1.1 Traffic Inputs

Traffic data was provided by SLR Highways and Transportation in collaboration with DTA Transport Planning Consultants – the appointed transport consultants to the applicant and the applicant for the adjoining Albion Land site (21/03267/OUT).

Traffic speeds were modelled at the relevant speed limit for each road. However, where appropriate, the speeds have been reduced to simulate queues at junctions, traffic lights and other locations where queues or slower traffic are known to be an issue, in accordance with LAQM.TG(22). Traffic speeds have been assumed to be consistent across all the modelled scenarios.

The Emissions Factors Toolkit (EFT) version 12.0 developed by Defra[1] has been used to determine vehicle emission factors for NOx, PM_{10} and $PM_{2.5}$ for input into the ADMS-Roads dispersion model. Gradient adjustment of vehicle emissions has been undertaken using v12.0 of the EFT, which incorporates the latest COPERT emission factors (v5.6).

The CREAM Tool version 1.0 developed by Air Quality Consultants Ltd has been used to determine vehicle emission factors for NH_3.

Where available, neighbouring road links up to 200m were also included within the dispersion model to facilitate a robust assessment, rather than rely on their individual contributions being represented within the appropriate background datasets.

Details of the traffic flows used in this assessment are provided overleaf in Table A, whilst the modelled roads in relation to the Site are presented in Figure I, Figure J and Figure K.

[1] Defra, EFT v12.0 (2023). Available at: https://laqm.defra.gov.uk/review-and-assessment/tools/emissions-factors-toolkit.html.

Table A: Traffic Data Used Within the Assessment

Link ID	Link Description	2022 Current Baseline		2026 Future Baseline		2026 Future Baseline + Cumulative Development (excluding AL)		2026 Future Baseline + Cumulative Development (including AL)		2026 Future Baseline + Cumulative Development + Proposed Development		Speed (kph) [1]
		AADT	% HDV	AADT	% HDV	AADT	% HDV	AADT	% HDV	AADT	% HDV	
2	B4100 (west of Baynards Green RBT & east of AL)	6125	2.6	6259	2.6	6304	2.6	9709	11.3	10277	12.2	97
3	B4100 (east of Baynards Green RBT & west of Site)	12995	3.3	13280	4.0	13709	4.0	16134	7.5	20801	12.0	97
5	B4100 (north of Bicester ring road)	12940	3.8	13223	4.0	13780	3.9	14962	4.0	16349	4.1	64
6	A4095 (east of B4100)	15711	4.0	16055	4.0	16826	4.0	17356	4.0	17924	4.0	64
7	A4095 (west of B4100)	12568	1.6	12843	1.6	13845	1.7	14102	1.8	14417	1.9	64
8	A43 (south of Baynards Green RBT)	36328	14.8	37665	14.8	39174	14.4	41074	15.0	43029	15.6	113
9	B430	8255	4.7	8436	4.7	11777	4.8	12206	4.6	12584	4.5	97 & 64
10	M40 (south of Ardley RBT)	108440	15.5	112463	15.5	112801	15.5	113743	15.6	114752	15.7	113
12	A43 (north of Baynards Green RBT)	37315	16.0	38688	16.0	40424	15.5	42253	16.0	44334	16.5	113
15	M40 onslip (south of motorway services)	16700	19.8	17320	19.8	17488	19.7	17959	19.9	18464	20.1	113
16	M40 offslip (south of motorway services)	17308	16.6	17950	16.6	18119	16.5	18590	16.8	19094	17.1	113
19	A43 (north of Barleymow RBT)	35049	15.9	36339	15.9	37641	15.5	38902	15.9	40338	16.3	113
20	A421 (east of Barleymow RBT)	10666	9.0	10900	9.0	11334	8.8	11900	9.7	12546	10.6	97

Note:
[1] Speeds are based upon National Speed Limits. Traffic speeds have been adjusted to take into account queues and congestion in accordance with LAQM.TG(22).

6.1.2 Meteorological Data

To calculate pollutant concentrations at identified sensitive receptor locations the dispersion model uses sequential hourly meteorological data, including wind direction, wind speed, temperature, cloud cover and stability, which exert significant influence over atmospheric dispersion.

The dispersion modelling has been undertaken using 2022 data from the Brize Norton meteorological station, located approximately 35km to the southwest of the Site – the nearest and most representative meteorological station relative to the Site with sufficient data capture.

LAQM.TG(22) recommends that meteorological data should have a percentage of usable hours greater than 85%. 2022 meteorological data from Brize Norton meteorological station includes 8,760 lines of usable hourly data for the year, i.e. 100% usable data. This is therefore suitable for the dispersion modelling exercise.

A variable surface roughness file (as provided by Air Quality Consultants Ltd, the air quality consultant for the applicant of the adjoining Albion Land site), has been applied within the model to represent both the dispersion site and the meteorological station. The file contains a 12km by 12km cartesian grid at 50m resolution.

A wind rose for Brize Norton meteorological station is presented in Figure R.

6.1.3 Background Concentrations

In the absence of available locally representative background monitoring sites, annual mean background concentrations used for the purposes of the assessment have been obtained from the Defra supplied background maps (2018 reference year)[2], based on the 1km^2 grid square which cover the modelled area. Further detail on these datasets can be found in Chapter 6.

No adjustment for background concentration variability with height has been made.

6.1.4 Sensitive Receptors

6.1.4.1 Human Receptors

Human receptors considered in the assessment of emissions from road traffic are shown Table B, whilst their locations are illustrated in Figure I and Figure J.

Receptors H1-H25 are representative of worst-case relevant exposure locations at existing receptors within the Site locale, relative to the affected road network discussed.

All receptors were considered in relation to exposure at breathing height relative to the adjacent modelled road, at ground level, i.e. 1.5m height. Receptor locations represent exposure to the relevant AQALs – in accordance with LAQM.TG(22) presented in Table B.

Table B: Human Receptors Considered

Receptor	NGR X (m)	NGR Y (m)	Height (m)
H1	454715	229239	1.5
H2	454803	229149	1.5
H3	454810	229124	1.5
H4	454781	228962	1.5
H5	454758	228955	1.5
H6	454868	227257	1.5

[2] Defra, Background Maps (2018-Reference). Available at: http://uk-air.defra.gov.uk/data/laqm-background-home/.

Receptor	NGR X (m)	NGR Y (m)	Height (m)
H7	454981	227110	1.5
H8	457249	226300	1.5
H9	457645	225617	1.5
H10	457791	225439	1.5
H11	457907	225372	1.5
H12	457911	225317	1.5
H13	458096	224947	1.5
H14	458096	224740	1.5
H15	458111	224636	1.5
H16	458423	224438	1.5
H17	458277	224459	1.5
H18	457916	224335	1.5
H19	457778	224261	1.5
H20	454928	229421	1.5
H21	455034	229638	1.5
H22	455532	230520	1.5
H23	456828	232048	1.5
H24	457618	233439	1.5
H25	461288	233178	1.5

Model Outputs

The background pollutant concentrations discussed above have been used in conjunction with the concentrations predicted by the ADMS-Roads model to calculate predicted total annual mean concentrations of NO_2, PM_{10} and $PM_{2.5}$ for each respective scenario.

For the prediction of annual mean NO_2 concentrations for all modelled scenarios at receptor locations, the road-NOx contributions (adjusted as per Appendix 6.2) have been converted to road NO_2 contributions following the methodology in LAQM.TG(22) using the latest version of Defra's NOx to NO_2 conversion tool (v8.1)[3]. The traffic mix within the calculator was set to 'all non-urban UK traffic' and 'Cherwell District' was selected as the local authority. The modelled NO_2 road contribution was then added to the appropriate NO_2 background concentration value to obtain an overall total annual mean NO_2 concentration.

For the prediction of short-term NO_2 impacts, LAQM.TG(22) advises that it is valid to assume that exceedences of the 1-hour mean NO_2 AQAL are unlikely to occur where the annual mean NO_2 concentration is <60µg/m^3. This approach has thus been adopted for the purposes of this assessment, at relevant receptor locations with an applicable exposure period.

[3] Defra, NOx to NO_2 Calculator v8.1 (2020). Available at: https://laqm.defra.gov.uk/air-quality/air-quality-assessment/nox-to-no2-calculator/.

For the prediction of short-term PM_{10}, LAQM.TG(22) provides an empirical relationship between the annual mean and the number of exceedences of the 24-hour mean AQAL for PM_{10} that can be calculated as follows:

No. 24-hour mean exceedances = -18.5 + 0.00145 × annual mean^3 + (206/annual mean)

This relationship has thus been adopted to determine whether exceedences of the short-term PM_{10} AQAL are likely in this assessment.

Verification of the ADMS-Roads assessment has been undertaken as per Appendix 6.2. All results presented in the assessment are calculated following the process of model verification, using an adjustment factor of 1.474 for NO_2, PM_{10} and $PM_{2.5}$.

6.1.4.2 Ecological Receptors

On the basis of the IAQM Ecology guidance, there is one national designated site, i.e. Site of Special Scientific Interest (SSSI), (split into two distinct areas) and two locally designated sites (Ancient Woodland (AW)) located within 200m of the considered road links projected to experience traffic which meet the relevant screening criteria.

All receptors were modelled along perpendicular transects extending 200 m from the nearest modelled road and at ground level, i.e. 0m height in order to represent worst-case impacts.

Table C provides details of the relevant habitat designations and Table D provides the specific receptor locations, as illustrated in Figure K to Figure O.

Table C: Ecological Habitat Designations Considered

Receptor	Name	Designation	Habitat Type
E1	Ardley Cutting and Quarry (B430)	Site of Special Scientific Interest	Calcareous grassland
E2	Ardley Cutting and Quarry (M40)	Site of Special Scientific Interest	Calcareous grassland
E3	Stoke Little Wood	Ancient Woodland	Broadleaved, Mixed and Yew Woodland
E4	Twelveacre Copse	Ancient Woodland	Broadleaved, Mixed and Yew Woodland

Table D: Ecological Receptors Considered

Receptor	NGR X (m)	NGR Y (m)	Height (m)	Distance From Kerbside (m)
Ardley Cutting and Quarry SSSI (B430)				
E1.1	454098	226749	0	<2
E1.2	454095	226751	0	5
E1.3	454091	226753	0	10
E1.4	454086	226756	0	15
E1.5	454082	226758	0	20
E1.6	454078	226761	0	25
E1.7	454088	226726	0	<2
E1.8	454085	226728	0	5

E1.9	454080	226731	0	10
E1.10	454076	226733	0	15
E1.11	454072	226736	0	20
E1.12	454067	226738	0	25
E1.13	454045	226750	0	50
E1.14	454101	226738	0	<2
E1.15	454105	226735	0	5
E1.16	454110	226733	0	10
E1.17	454114	226731	0	15
E1.18	454118	226728	0	20
E1.19	454123	226726	0	25
E1.20	454145	226714	0	50
E1.21	454090	226712	0	<2
E1.22	454094	226710	0	5
E1.23	454099	226708	0	10
E1.24	454103	226706	0	15
E1.25	454108	226704	0	20
E1.26	454112	226701	0	25
E1.27	454135	226690	0	50
Ardley Cutting and Quarry SSSI (M40)				
E2.1	454956	225937	0	<1
E2.2	454951	225938	0	5
E2.3	454946	225938	0	10
E2.4	454941	225938	0	15
E2.5	454906	225940	0	50
E2.6	454953	225904	0	2.5
E2.7	454950	225904	0	5
E2.8	454945	225904	0	10
E2.9	454940	225904	0	15
E2.10	454992	225889	0	3.2
E2.11	454994	225889	0	5
E2.12	454999	225889	0	10
E2.13	455004	225888	0	15

E2.14	455009	225888	0	20
E2.15	454988	225855	0	<1
E2.16	454993	225855	0	5
E2.17	454998	225855	0	10
E2.18	455003	225855	0	15
E2.19	455008	225855	0	20
E2.20	455038	225853	0	50
Stokes Little Wood AW				
E3.1	456319	227520	0	17.3
E3.2	456321	227521	0	20
E3.3	456325	227524	0	25
E3.4	456345	227538	0	50
E3.5	456366	227552	0	75
E3.6	456387	227566	0	100
E3.7	456428	227594	0	150
E3.8	456469	227622	0	200
E3.9	456388	227431	0	30.9
E3.10	456404	227441	0	50
E3.11	456424	227455	0	75
E3.12	456445	227469	0	100
E3.13	456487	227497	0	150
E3.14	456528	227525	0	200
Twelveacre Copse AW				
E4.1	456812	226677	0	14.1
E4.2	456811	226676	0	15
E4.3	456808	226673	0	20
E4.4	456804	226669	0	25
E4.5	456786	226652	0	50
E4.6	456768	226634	0	75
E4.7	456750	226617	0	100
E4.8	456884	226612	0	10.3
E4.9	456881	226609	0	15
E4.10	456878	226605	0	20

E4.11	456874	226601	0	25
E4.12	456858	226583	0	50
E4.13	456841	226564	0	75
E4.14	456824	226545	0	100
E4.15	456791	226508	0	150
E4.16	456758	226471	0	200

Model Outputs

The Process Contribution (PC) of each pollutant associated with road traffic emissions generated by the Proposed Development (i.e. the change in annual mean NOx and NH_3 concentrations compared to the CLe, and change in contributions of annual nutrient nitrogen and acid deposition compared to the CLo) have been calculated for the future year scenarios (2026) discussed in Chapter 6.

Verification of the ADMS-Roads assessment has been undertaken as per Appendix 6.2. The results presented in the assessment are calculated following the process of model verification, using an adjustment factor of 1.474 for NOx. No adjustment factor has been applied to NH_3.

Critical Level – NOx

For the prediction of annual mean NOx concentrations, the road-NOx PCs (NOx adjusted as per Appendix 6.2) have been added to the appropriate NOx background concentration to obtain the total annual mean NOx concentration. These values have then been compared to the habitat specific CLe, as shown in Chapter 6.

Critical Level – NH_3

For the prediction of annual mean NH_3 concentrations, the road-NH_3 PCs (which consider NH_3 depletion over distance) have been added to the appropriate NH_3 background concentration to obtain the total annual mean NH_3 concentration. These values have then been compared to the habitat specific CLe, as shown in Chapter 6.

Critical Load – Eutrophication

To derive the PCs of road nutrient nitrogen (N), road dry deposition fluxes of road-NOx and NH_3 have been calculated using deposition velocities for the relevant chemical species as recommended by the IAQM Ecology guidance (see Table E) using the following equation:

Dry deposition flux ($\mu g/m^2/s$) = ground level concentration ($\mu g/m^3$) x deposition velocity (m/s)

These velocities vary dependant on land use. As such, where present, both habitats should be given due consideration to ensure maximum impacts from deposition are calculated. For this study, the grassland deposition velocity was applied to the Ardley Cutting and Quarry SSSI, given the short-stature nature of these habitats. The woodland deposition velocity was applied to the Stoke Little Wood and Twelveacre Copse AWs.

Table E: Applied Deposition Velocities

Habitat Type	Recommended Deposition Velocity (m/s)	
	NO_2	NH_3
Grassland	0.0015	0.02
Woodland	0.003	0.03

The dry road deposition fluxes (µg/m^2/s) for NO_2 and NH_3 have been multiplied by the standard conversion factor of 95.9 and for NH_3 by the standard conversion factor of 260 in order to obtain the correct units (kgN/ha/year), as recommended by AQTAG06[4] guidance.

These have been added together to obtain the road nutrient N deposition rate PCs, which in turn have been added to the appropriate background nutrient N deposition rate to obtain the total nutrient N deposition rate. These values have then been compared to the habitat specific CLo, as shown in Chapter 6.

Critical Load - Acidification

For the assessment of acidification, the predicted road nutrient N deposition rate PCs have been divided by 14 in order to obtain the correct units, as demonstrated by AQTAG06[4] guidance. The road acid deposition rate PCs have been added to the appropriate background acid deposition rate to obtain the total acid deposition rate. These values have then been compared to the habitat specific CLo, as shown in Chapter 6.

[4] Environment Agency, AQTAG06 Technical guidance on detailed modelling approach for an appropriate assessment for emissions to air, (2014).

6.2 Model Verification

6.2.1 Model Verification

The ADMS-Roads dispersion model has been widely validated for this type of assessment and is specifically listed in the Defra's LAQM.TG(22) guidance as an accepted dispersion model.

Model validation undertaken by the software developer (CERC) will not have included validation in the vicinity of the Site. It is therefore necessary to perform a comparison of modelled results with local monitoring data at relevant locations. This process of verification attempts to minimise modelling uncertainty and systematic error by correcting modelled results by an adjustment factor to gain greater confidence in the final results.

Prior to undertaking model verification, model setup parameters and input data were reviewed to maximise the performance of the dispersion model in relation to the real-world conditions.

Consistent with advice provided by the IAQM and Defra to local authorities across England, 2022 has been used for the purposes of model verification as relates to the most recent year of monitoring data available which hasn't been impacted by the COVID-19 pandemic. Use of monitoring data recorded in 2020/2021 for the purposes of model verification introduces an element of uncertainty into the final adjusted modelled predictions, as monitoring conditions experienced for the majority of 2020/2021 are not deemed to be representative of long-term baseline conditions and could lead to a systematic underprediction at modelled receptor locations.

It was not possible to derive a motorway specific NOx verification factor based on the lack of suitable monitoring locations adjacent to the motorway.

6.2.2 NOx/NO_2 Verification

NOx/NO_2 verification relates to the comparison and adjustment of modelled road-NOx (as output from the ADMS-Roads dispersion model), relative to monitored road-NOx.

For NOx/NO_2 model verification, 2022 LAQM CDC monitoring data has been used for the roadside location situated adjacent to a modelled link i.e. where traffic data exists (see Table F).

Table F: Local Monitoring Data Available for Model Verification

Site ID	NGR X (m)	NGR Y (m)	Height (m)	2022 Monitored Annual Mean NO_2 (µg/m^3)	2022 Data Capture (%)
20 / Ardley (B430)	454303	227502	2.0	18.0	100

NOx was back calculated using the latest version of Defra's NOx to NO_2 Calculator (v8.1) for all monitors – given the absence of data. The NOx to NO_2 Calculator was also used to facilitate the conversion of modelled road-NOx (as output from the ADMS-Roads dispersion model) into road-NO_2.

Verification was completed using the 2022 Defra background mapped concentrations (2018 base year) for the relevant 1km^2 grid square (i.e. those within which the model verification locations are located), as discussed in Appendix 6.1.

Initial comparison of the modelled vs. monitored road-NOx contribution at the verification locations is provided in Table G. An adjustment factor of 1.474 has been derived, based on a linear regression forced through zero as shown in Figure S.

Table G: NOx/NO_2 Model Verification (1.474)

Site ID	Monitored Road NOx (µg/m^3)	Modelled Road NOx (µg/m^3)	Ratio (Monitored vs. Modelled Road NOx)	Adjustment Factor
20 / Ardley (B340)	18.0	8.1	5.5	1.474

6.2.3 $PM_{10}/PM_{2.5}$ Verification

The adjustment factor of 1.474 was also applied to road-PM_{10} and $PM_{2.5}$ concentrations (as output of the ADMS Roads dispersion model), following the recommendations of LAQM.TG(22), in the absence of local particulate monitoring.

6.3 Construction Dust Mitigation Measures

As discussed in Chapter 6, construction impacts associated with the Proposed Development would result in the generation of dust and PM_{10}.

In order to control potential impacts, Table H presents a range of mitigation measures which could be applied and align with the IAQM Dust guidance. With the effective application of the dust mitigation measures, residual effects will be 'not significant'.

Table H: Construction Dust Mitigation Measures

Site Application	Mitigation Measures
Highly Recommended	
Communications	Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.
	Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.
	Display the head or regional office contact information.
	Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the Local Authority. The level of detail will depend on the risk, and should include as a minimum the highly recommended measures in this document. The desirable measures should be included as appropriate for the site.
Construction	Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
Monitoring	Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked.
	Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
	Agree dust deposition, dust flux, or real-time PM_{10} continuous monitoring locations with the Local Authority. Where possible commence baseline monitoring at least three months before work commences on site or, if it a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks and construction.
Operating Vehicle/Machinery and Sustainable Travel	Ensure all vehicles switch off engines when stationary - no idling vehicles.
	Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable.
Operations	Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
	Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
	Use enclosed chutes and conveyors and covered skips.
	Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
	Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.
Preparing and Maintaining the Site	Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
	Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.
	Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.
	Avoid site runoff of water or mud.
	Keep site fencing, barriers and scaffolding clean using wet methods.

Site Application	Mitigation Measures
	Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.
	Cover, seed or fence stockpiles to prevent wind whipping.
Site Management	Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
	Make the complaints log available to the local authority when asked.
	Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book.
	Hold regular liaison meetings with other high risk construction sites within 500 m of the site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport/ deliveries which might be using the same strategic road network routes.
Waste Management	Avoid bonfires and burning of waste materials.
Desirable	
Construction	Avoid scabbling (roughening of concrete surfaces) if possible.
	Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.
	For smaller supplies of fine power materials ensure bags are sealed after use and stored appropriately to prevent dust.
Earthworks	Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.
	Use Hessian, mulches or tackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable
	Only remove the cover in small areas during work and not all at once.
Monitoring	Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100m of site boundary, with cleaning to be provided if necessary.
Operating Vehicle/Machinery and Sustainable Travel	Impose and signpost a maximum-speed-limit of 15mph on surfaced and 10mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).
	Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).

6.4 Ecological Assessment Results

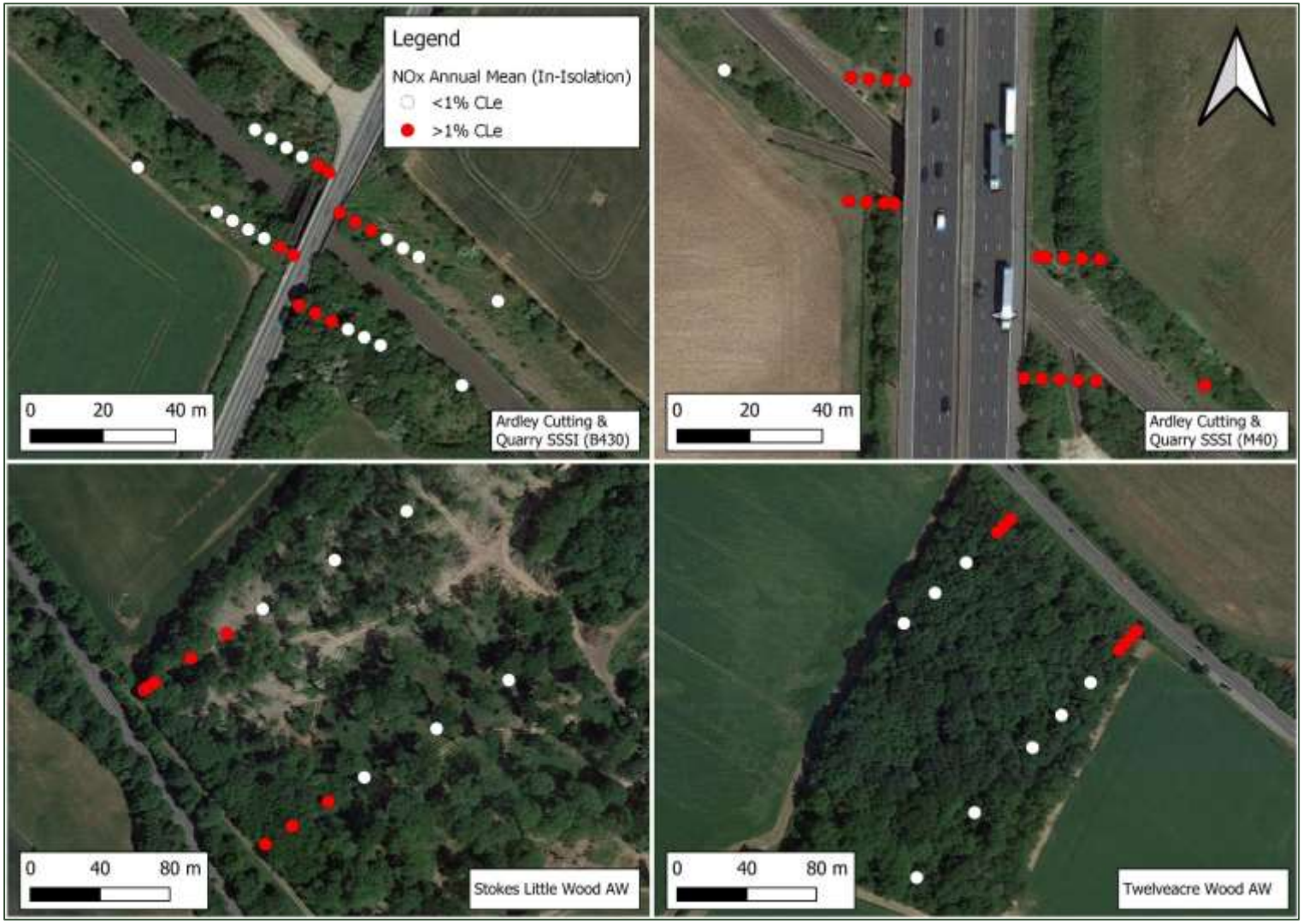


Figure A: NOx Annual Mean: CLe >1% Extent (In-Isolation)

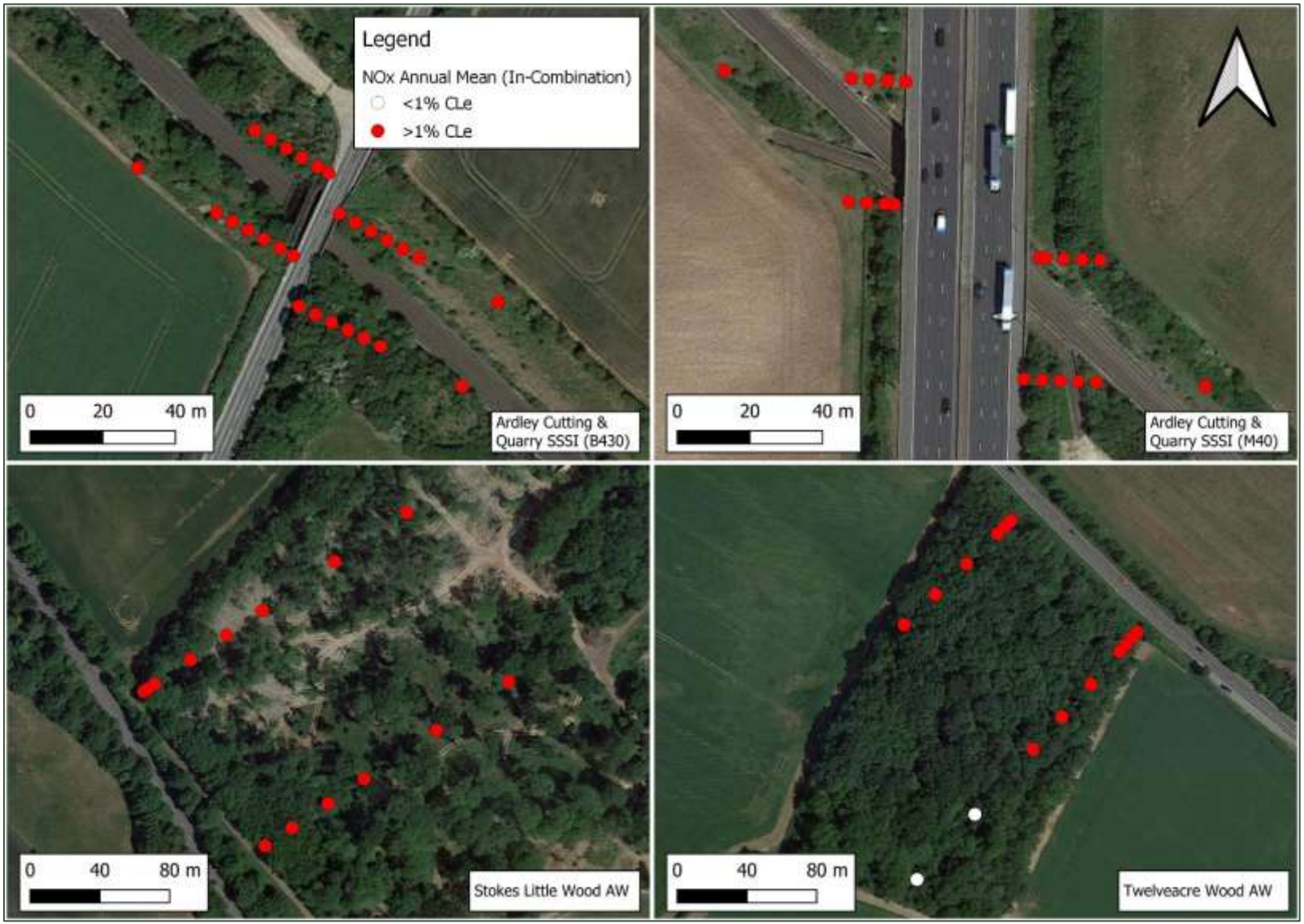


Figure B: NOx Annual Mean: CLe >1% Extent (In-Combination)

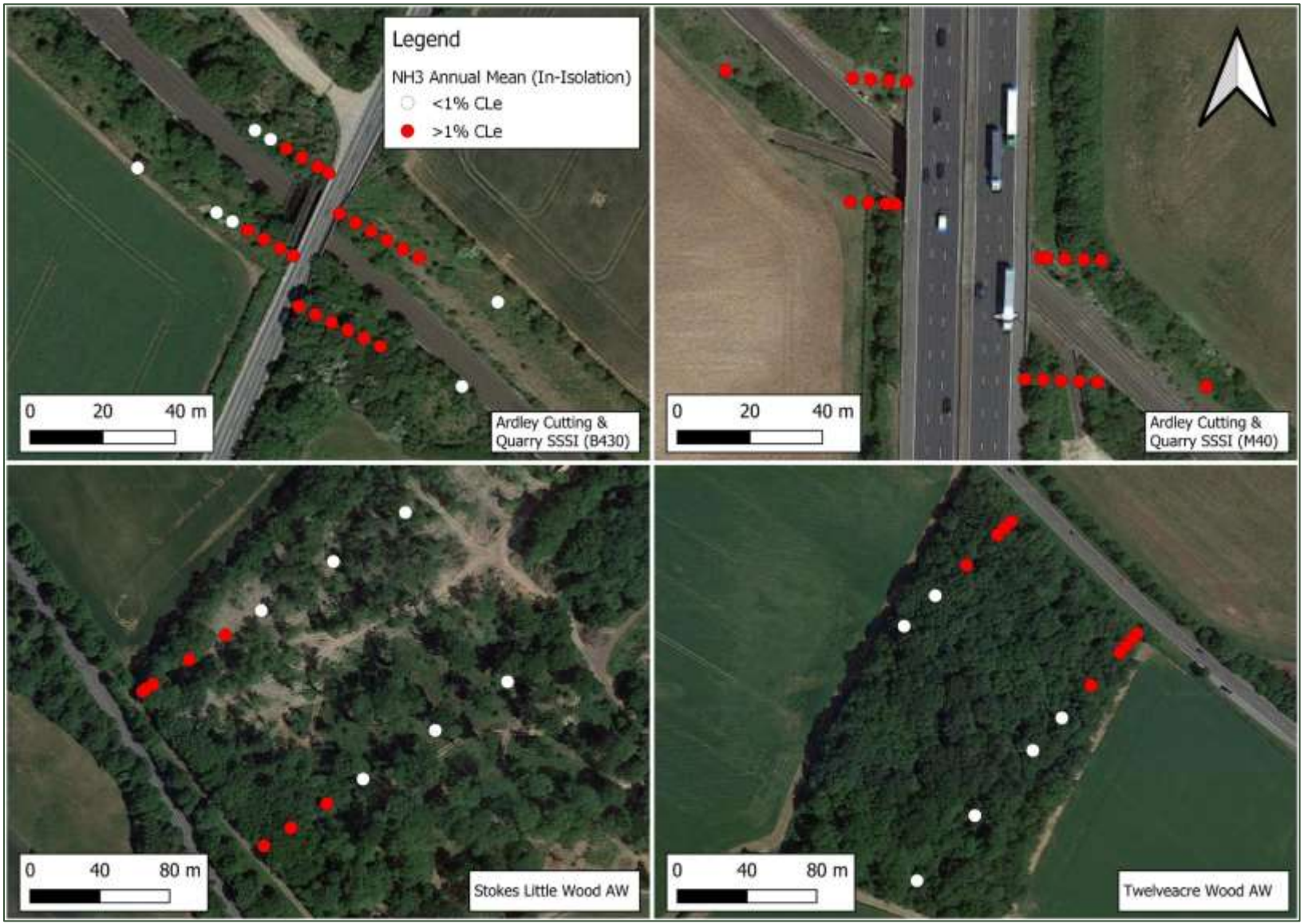


Figure C: NH_3 Annual Mean: CLe >1% Extent (In-Isolation)

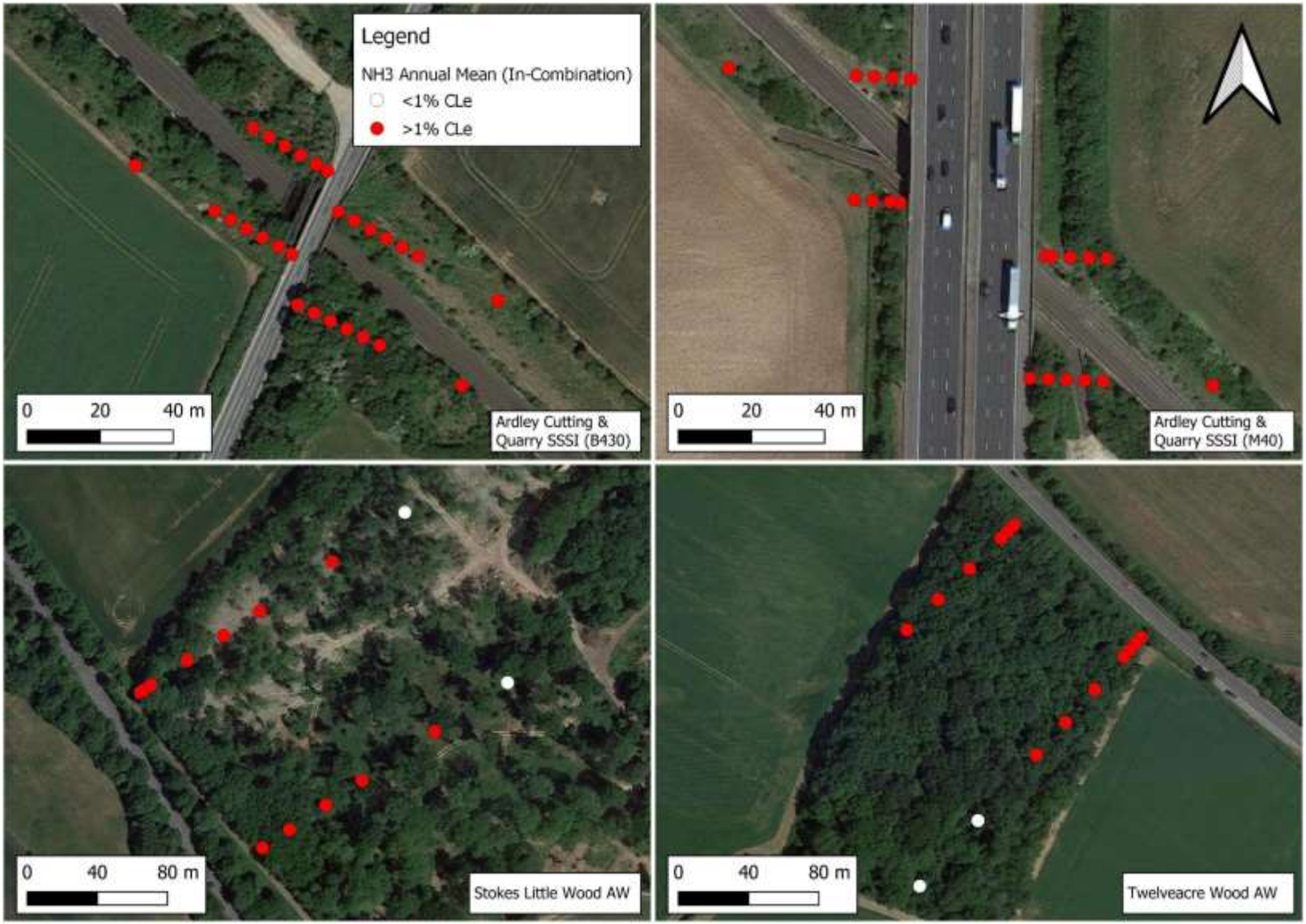


Figure D: NH_3 Annual Mean: CLe >1% Extent (In-Combination)

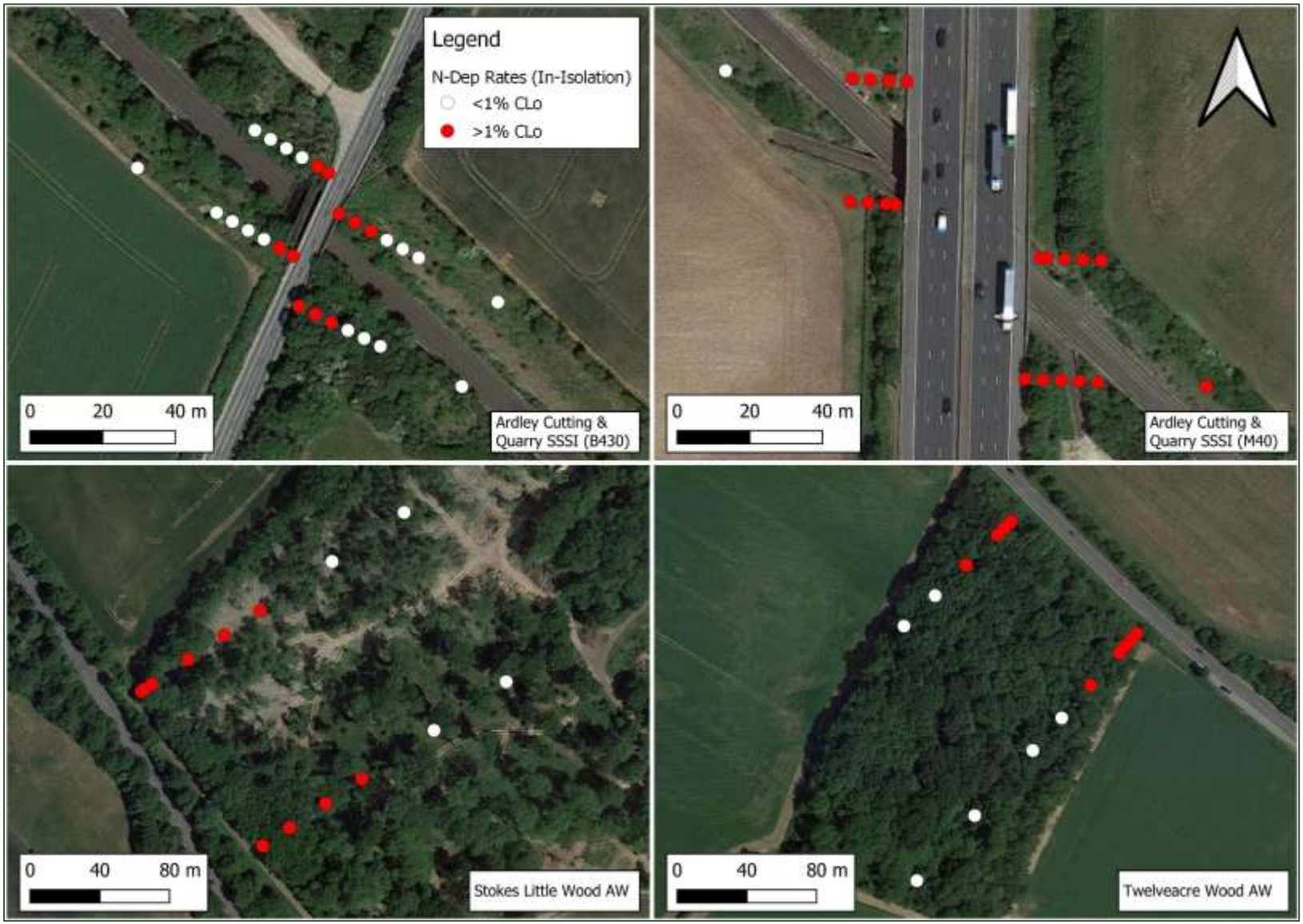


Figure E: Nutrient N-Deposition Rates: CLo >1% Extent (In-Isolation)

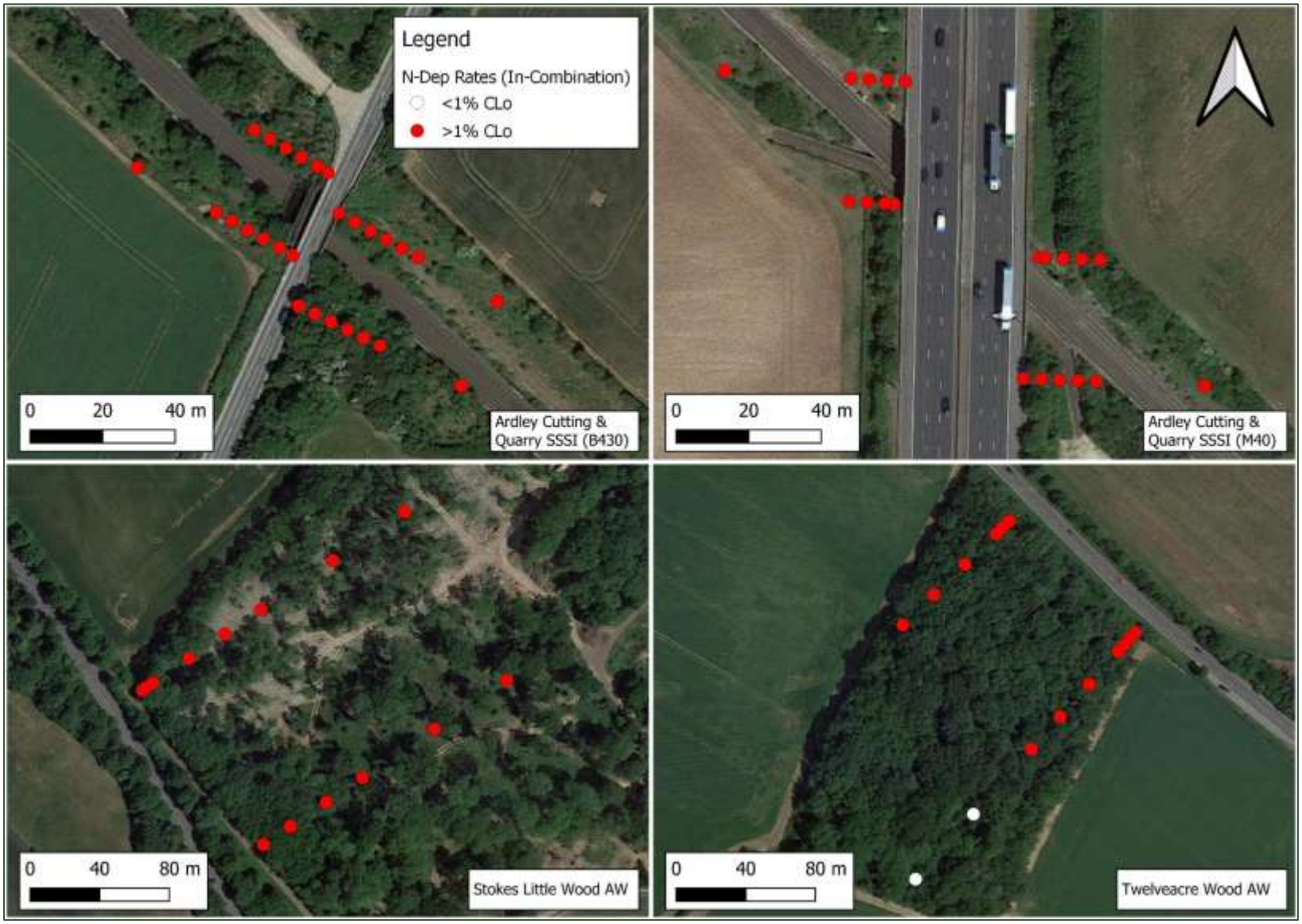


Figure F: Nutrient N-Deposition Rates: CLo >1% Extent (In-Combination)

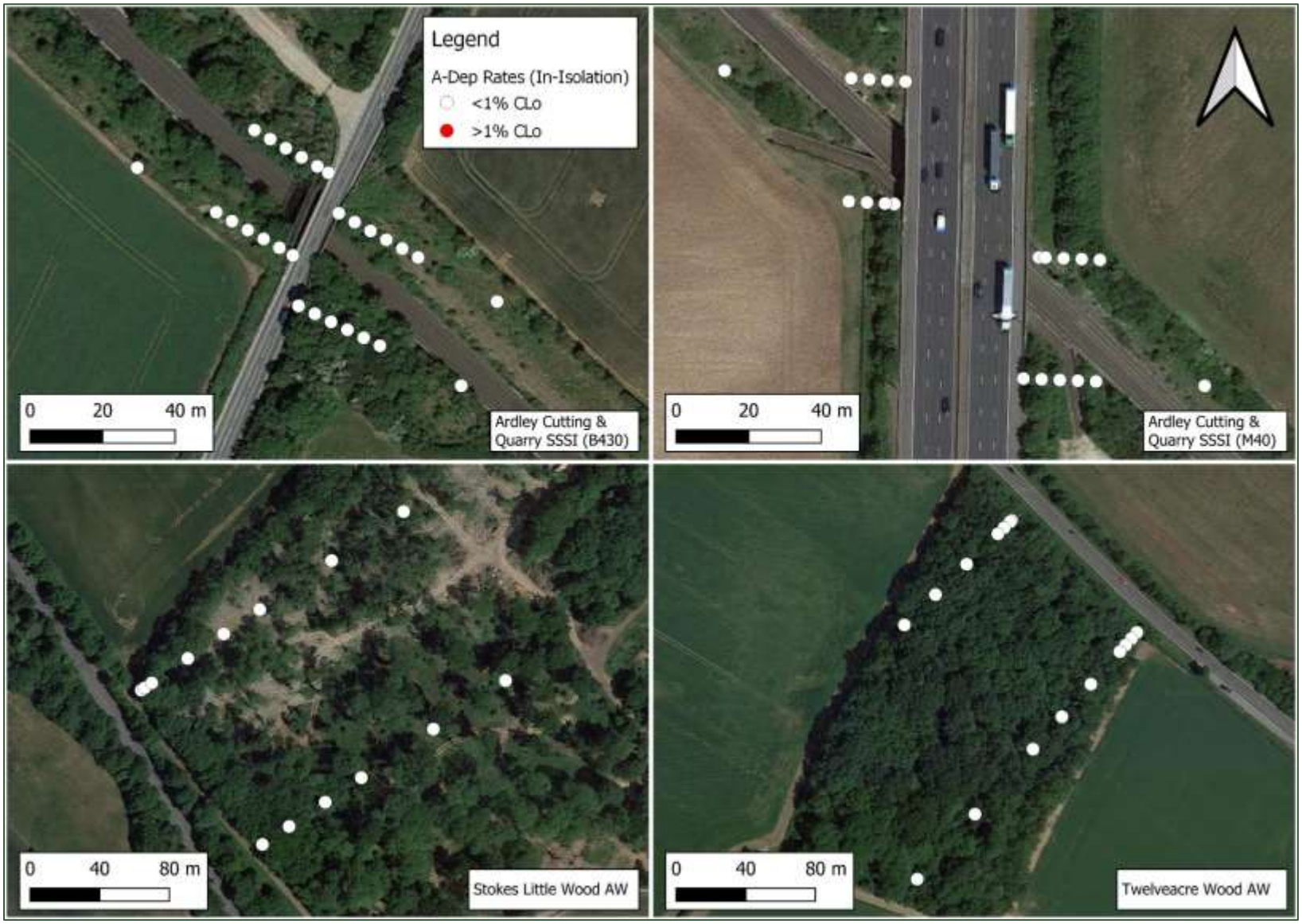


Figure G: Acid-Deposition Rates: CLo >1% Extent (In-Isolation)

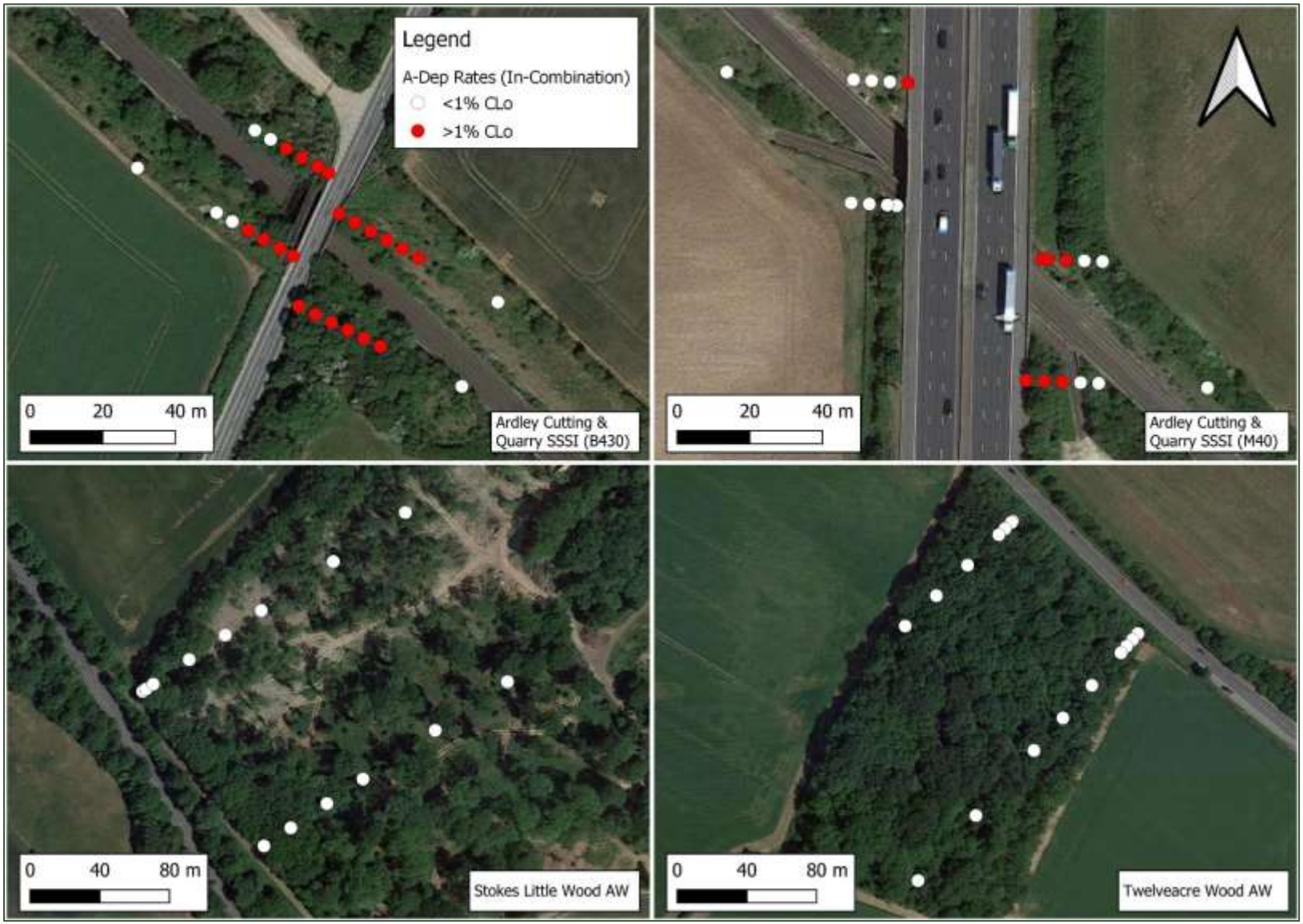


Figure H: Acid-Deposition Rates: CLo >1% Extent (In-Combination)

Table I: Predicted Annual Mean NOx Concentrations – Proposed Development In-Isolation

Receptor	Predicted Annual Mean NOx Concentration (µg/m^3)			Concentration Change (ug/m^3)	Percentage Change of 30 ug/m^3 CLe (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base + Cumulative Development [A]	2026 Base + Cumulative Development + Proposed Development [A]			
Ardley Cutting and Quarry (B430)						
E1.1	13.8	28.8	29.3	0.44	1.5	1.4
E1.2	13.8	25.1	25.4	0.33	1.1	1.2
E1.3	13.8	22.4	22.7	0.25	0.8	1.0
E1.4	13.8	20.9	21.1	0.20	0.7	0.8
E1.5	13.8	19.8	20.0	0.17	0.6	0.7
E1.6	13.8	19.1	19.2	0.15	0.5	0.7
E1.7	13.8	30.1	30.5	0.48	1.6	1.4
E1.8	13.8	25.1	25.4	0.33	1.1	1.1
E1.9	13.8	22.4	22.7	0.25	0.8	1.0
E1.10	13.8	20.8	21.0	0.20	0.7	0.8
E1.11	13.8	19.8	19.9	0.17	0.6	0.7
E1.12	13.8	19.0	19.2	0.15	0.5	0.7
E1.13	13.8	17.0	17.1	0.09	0.3	0.4
E1.14	13.8	35.6	36.2	0.64	2.1	1.6
E1.15	13.8	28.9	29.4	0.44	1.5	1.3
E1.16	13.8	26.0	26.3	0.35	1.2	1.2
E1.17	13.8	24.1	24.4	0.29	1.0	1.1
E1.18	13.8	22.8	23.0	0.25	0.8	1.0
E1.19	13.8	21.8	22.0	0.22	0.7	0.9
E1.20	13.8	19.0	19.2	0.14	0.5	0.6
E1.21	13.8	37.0	37.6	0.65	2.2	1.6
E1.22	13.8	29.5	30.0	0.46	1.5	1.4
E1.23	13.8	26.3	26.6	0.36	1.2	1.2
E1.24	13.8	24.2	24.5	0.30	1.0	1.1
E1.25	13.8	22.8	23.1	0.26	0.9	1.0

E1.26	13.8	21.8	22.0	0.23	0.8	0.9
E1.27	13.8	18.9	19.1	0.14	0.5	0.6
Ardley Cutting and Quarry SSSI (M40)						
E2.1	15.3	86.0	86.7	0.62	2.1	0.7
E2.2	15.3	72.4	72.9	0.50	1.7	0.7
E2.3	15.3	63.5	63.9	0.43	1.4	0.6
E2.4	15.3	57.0	57.4	0.37	1.2	0.6
E2.5	15.3	36.1	36.3	0.19	0.6	0.5
E2.6	15.3	78.3	78.9	0.56	1.9	0.7
E2.7	15.3	72.3	72.8	0.50	1.7	0.7
E2.8	15.3	63.5	63.9	0.43	1.4	0.6
E2.9	15.3	57.1	57.4	0.37	1.2	0.6
E2.10	15.3	126.0	126.9	0.94	3.1	0.7
E2.11	15.3	119.7	120.6	0.89	3.0	0.7
E2.12	15.3	105.7	106.5	0.77	2.6	0.7
E2.13	15.3	95.1	95.8	0.68	2.3	0.7
E2.14	15.3	86.7	87.4	0.61	2.0	0.7
E2.15	15.3	139.8	140.9	1.06	3.5	0.7
E2.16	15.3	119.6	120.5	0.89	3.0	0.7
E2.17	15.3	105.5	106.3	0.77	2.6	0.7
E2.18	15.3	94.8	95.5	0.68	2.3	0.7
E2.19	15.3	86.3	87.0	0.61	2.0	0.7
E2.20	15.3	57.8	58.2	0.37	1.2	0.6
Stokes Little Wood AW						
E3.1	8.9	19.2	20.1	0.85	2.8	4.1
E3.2	8.9	18.6	19.4	0.80	2.7	4.0
E3.3	8.9	17.6	18.3	0.70	2.3	3.7
E3.4	8.9	14.8	15.2	0.44	1.5	2.8
E3.5	8.9	13.5	13.8	0.33	1.1	2.2
E3.6	8.9	12.7	13.0	0.26	0.9	1.8

E3.7	8.9	11.9	12.1	0.18	0.6	1.4
E3.8	8.9	11.4	11.5	0.14	0.5	1.1
E3.9	8.9	16.5	17.1	0.60	2.0	3.4
E3.10	8.9	14.7	15.1	0.44	1.5	2.7
E3.11	8.9	13.4	13.7	0.32	1.1	2.2
E3.12	8.9	12.6	12.9	0.25	0.8	1.8
E3.13	8.9	11.8	12.0	0.18	0.6	1.4
E3.14	8.9	11.3	11.5	0.14	0.5	1.1
Twelveacre Copse AW						
E4.1	8.9	15.4	15.9	0.54	1.8	3.2
E4.2	8.9	15.1	15.7	0.52	1.7	3.2
E4.3	8.9	14.3	14.8	0.45	1.5	2.8
E4.4	8.9	13.7	14.1	0.39	1.3	2.6
E4.5	8.9	12.1	12.4	0.24	0.8	1.8
E4.6	8.9	11.4	11.6	0.17	0.6	1.4
E4.7	8.9	11.0	11.2	0.14	0.5	1.1
E4.8	8.9	16.3	17.0	0.64	2.1	3.6
E4.9	8.9	15.2	15.8	0.53	1.8	3.2
E4.10	8.9	14.4	14.8	0.45	1.5	2.9
E4.11	8.9	13.8	14.2	0.40	1.3	2.6
E4.12	8.9	12.1	12.4	0.25	0.8	1.8
E4.13	8.9	11.4	11.6	0.18	0.6	1.4
E4.14	8.9	11.0	11.1	0.14	0.5	1.1
E4.15	8.9	10.6	10.7	0.10	0.3	0.8
E4.16	8.9	10.3	10.4	0.07	0.2	0.6

Table Notes:
(A) Exceedances of the CLe and 1% screening criterion are highlighted in red.

Table J: Predicted Annual Mean NH_3 Concentrations – Proposed Development In-Isolation

Receptor	Predicted Annual Mean NH_3 Concentration (µg/m^3)			Concentration Change (ug/m^3)	Percentage Change of 1 ug/m^3 CLe (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base + Cumulative Development [A]	2026 Base + Cumulative Development + Proposed Development [A]			
Ardley Cutting and Quarry (B430)						
E1.1	1.9	3.0	3.0	0.03	2.8	1.0
E1.2	1.9	2.6	2.7	0.02	2.0	0.7
E1.3	1.9	2.4	2.4	0.01	1.4	0.6
E1.4	1.9	2.3	2.3	0.01	1.0	0.4
E1.5	1.9	2.2	2.2	0.01	0.8	0.4
E1.6	1.9	2.1	2.2	0.01	0.7	0.3
E1.7	1.9	3.1	3.1	0.03	3.1	1.0
E1.8	1.9	2.6	2.6	0.02	1.9	0.7
E1.9	1.9	2.4	2.4	0.01	1.3	0.6
E1.10	1.9	2.3	2.3	0.01	1.0	0.4
E1.11	1.9	2.2	2.2	0.01	0.8	0.4
E1.12	1.9	2.1	2.2	0.01	0.7	0.3
E1.13	1.9	2.0	2.0	0.00	0.3	0.2
E1.14	1.9	3.5	3.6	0.04	4.2	1.2
E1.15	1.9	2.9	2.9	0.03	2.7	0.9
E1.16	1.9	2.6	2.7	0.02	1.9	0.7
E1.17	1.9	2.5	2.5	0.02	1.5	0.6
E1.18	1.9	2.4	2.4	0.01	1.2	0.5
E1.19	1.9	2.3	2.3	0.01	1.0	0.4
E1.20	1.9	2.1	2.1	0.01	0.5	0.2
E1.21	1.9	3.5	3.5	0.04	4.1	1.2
E1.22	1.9	2.9	2.9	0.03	2.6	0.9
E1.23	1.9	2.6	2.7	0.02	1.9	0.7
E1.24	1.9	2.5	2.5	0.01	1.5	0.6

Receptor	Predicted Annual Mean NH_3 Concentration (µg/m^3)			Concentration Change (ug/m^3)	Percentage Change of 1 ug/m^3 CLe (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base + Cumulative Development [A]	2026 Base + Cumulative Development + Proposed Development [A]			
E1.25	1.9	2.4	2.4	0.01	1.2	0.5
E1.26	1.9	2.3	2.3	0.01	1.0	0.4
E1.27	1.9	2.1	2.1	0.01	0.5	0.2
Ardley Cutting and Quarry SSSI (M40)						
E2.1	2.0	6.5	6.5	0.05	5.2	0.8
E2.2	2.0	5.4	5.4	0.04	3.9	0.7
E2.3	2.0	4.7	4.7	0.03	3.1	0.7
E2.4	2.0	4.2	4.3	0.03	2.6	0.6
E2.5	2.0	2.9	2.9	0.01	1.1	0.4
E2.6	2.0	5.9	5.9	0.04	4.5	0.8
E2.7	2.0	5.4	5.4	0.04	3.9	0.7
E2.8	2.0	4.7	4.7	0.03	3.1	0.7
E2.9	2.0	4.2	4.3	0.03	2.6	0.6
E2.10	2.0	8.8	8.9	0.08	7.8	0.9
E2.11	2.0	8.3	8.4	0.07	7.2	0.9
E2.12	2.0	7.2	7.2	0.06	5.9	0.8
E2.13	2.0	6.3	6.4	0.05	4.9	0.8
E2.14	2.0	5.7	5.7	0.04	4.2	0.7
E2.15	2.0	10.1	10.2	0.09	9.1	0.9
E2.16	2.0	8.3	8.4	0.07	7.2	0.9
E2.17	2.0	7.2	7.2	0.06	5.9	0.8
E2.18	2.0	6.3	6.4	0.05	4.9	0.8
E2.19	2.0	5.7	5.7	0.04	4.2	0.7
E2.20	2.0	3.8	3.8	0.02	2.1	0.5
Stokes Little Wood AW						
E3.1	1.8	2.4	2.4	0.05	5.3	2.2

Receptor	Predicted Annual Mean NH_3 Concentration (µg/m^3)			Concentration Change (ug/m^3)	Percentage Change of 1 ug/m^3 CLe (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base + Cumulative Development [A]	2026 Base + Cumulative Development + Proposed Development [A]			
E3.2	1.8	2.3	2.4	0.05	4.9	2.1
E3.3	1.8	2.3	2.3	0.04	4.1	1.8
E3.4	1.8	2.0	2.1	0.02	2.1	1.0
E3.5	1.8	2.0	2.0	0.01	1.4	0.7
E3.6	1.8	1.9	1.9	0.01	1.0	0.5
E3.7	1.8	1.9	1.9	0.01	0.6	0.3
E3.8	1.8	1.9	1.9	0.00	0.4	0.2
E3.9	1.8	2.2	2.2	0.03	3.3	1.5
E3.10	1.8	2.0	2.1	0.02	2.1	1.0
E3.11	1.8	2.0	2.0	0.01	1.3	0.7
E3.12	1.8	1.9	1.9	0.01	1.0	0.5
E3.13	1.8	1.9	1.9	0.01	0.6	0.3
E3.14	1.8	1.9	1.9	0.00	0.4	0.2
Twelveacre Copse AW						
E4.1	1.9	2.3	2.3	0.03	3.3	1.5
E4.2	1.9	2.2	2.3	0.03	3.2	1.4
E4.3	1.9	2.2	2.2	0.03	2.6	1.2
E4.4	1.9	2.1	2.2	0.02	2.1	1.0
E4.5	1.9	2.0	2.0	0.01	1.1	0.5
E4.6	1.9	2.0	2.0	0.01	0.7	0.3
E4.7	1.9	2.0	2.0	0.00	0.5	0.2
E4.8	1.9	2.3	2.4	0.04	4.1	1.7
E4.9	1.9	2.3	2.3	0.03	3.2	1.4
E4.10	1.9	2.2	2.2	0.03	2.6	1.2
E4.11	1.9	2.1	2.2	0.02	2.2	1.0
E4.12	1.9	2.0	2.0	0.01	1.1	0.5
E4.13	1.9	2.0	2.0	0.01	0.7	0.4

Receptor	Predicted Annual Mean NH_3 Concentration (µg/m^3)			Concentration Change (ug/m^3)	Percentage Change of 1 ug/m^3 CLe (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base + Cumulative Development [A]	2026 Base + Cumulative Development + Proposed Development [A]			
E4.14	1.9	2.0	2.0	0.00	0.5	0.3
E4.15	1.9	1.9	2.0	0.00	0.3	0.2
E4.16	1.9	1.9	1.9	0.00	0.2	0.1

Table Notes:
[A] Exceedances of the CLe and 1% screening criterion are highlighted in red.

Table K: Predicted Annual Mean Nutrient Nitrogen Deposition Rates – Proposed Development In-Isolation

Receptor	Predicted Annual Mean Nutrient Nitrogen Deposition Rate (kgN/ha/yr)			Deposition Rate Change (kgN/ha/yr)	Percentage Change of 10 kgN/ha/yr CLo (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base + Cumulative Development [A]	2026 Base + Cumulative Development + Proposed Development [A]			
Ardley Cutting and Quarry (B430)						
E1.1	17.1	23.8	24.0	0.18	1.8	0.8
E1.2	17.1	21.8	21.9	0.13	1.3	0.6
E1.3	17.1	20.4	20.5	0.09	0.9	0.4
E1.4	17.1	19.6	19.7	0.07	0.7	0.3
E1.5	17.1	19.2	19.2	0.05	0.5	0.3
E1.6	17.1	18.8	18.9	0.05	0.5	0.2
E1.7	17.1	24.3	24.5	0.19	1.9	0.8
E1.8	17.1	21.7	21.9	0.13	1.3	0.6
E1.9	17.1	20.4	20.5	0.09	0.9	0.4
E1.10	17.1	19.6	19.7	0.07	0.7	0.3
E1.11	17.1	19.1	19.2	0.05	0.5	0.3
E1.12	17.1	18.8	18.8	0.05	0.5	0.2
E1.13	17.1	18.0	18.0	0.02	0.2	0.1
E1.14	17.1	27.1	27.4	0.26	2.6	1.0
E1.15	17.1	23.5	23.7	0.17	1.7	0.7
E1.16	17.1	21.9	22.0	0.13	1.3	0.6
E1.17	17.1	20.9	21.0	0.10	1.0	0.5
E1.18	17.1	20.2	20.3	0.08	0.8	0.4
E1.19	17.1	19.7	19.8	0.07	0.7	0.4
E1.20	17.1	18.5	18.6	0.04	0.4	0.2
E1.21	17.1	27.0	27.3	0.26	2.6	1.0
E1.22	17.1	23.5	23.7	0.17	1.7	0.7
E1.23	17.1	21.9	22.0	0.13	1.3	0.6
E1.24	17.1	20.9	21.0	0.10	1.0	0.5

Receptor	Predicted Annual Mean Nutrient Nitrogen Deposition Rate (kgN/ha/yr)			Deposition Rate Change (kgN/ha/yr)	Percentage Change of 10 kgN/ha/yr CLo (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base + Cumulative Development [A]	2026 Base + Cumulative Development + Proposed Development [A]			
E1.25	17.1	20.2	20.3	0.08	0.8	0.4
E1.26	17.1	19.7	19.8	0.07	0.7	0.4
E1.27	17.1	18.5	18.5	0.04	0.4	0.2
Ardley Cutting and Quarry SSSI (M40)						
E2.1	16.9	44.9	45.2	0.30	3.0	0.7
E2.2	16.9	38.5	38.7	0.23	2.3	0.6
E2.3	16.9	34.4	34.6	0.19	1.9	0.5
E2.4	16.9	31.6	31.7	0.16	1.6	0.5
E2.5	16.9	23.1	23.2	0.07	0.7	0.3
E2.6	16.9	41.2	41.5	0.26	2.6	0.6
E2.7	16.9	38.4	38.6	0.23	2.3	0.6
E2.8	16.9	34.4	34.6	0.19	1.9	0.5
E2.9	16.9	31.6	31.7	0.16	1.6	0.5
E2.10	16.9	59.4	59.8	0.44	4.4	0.7
E2.11	16.9	56.3	56.8	0.41	4.1	0.7
E2.12	16.9	49.6	50.0	0.34	3.4	0.7
E2.13	16.9	44.7	45.0	0.29	2.9	0.6
E2.14	16.9	41.0	41.2	0.25	2.5	0.6
E2.15	16.9	66.4	66.9	0.52	5.2	0.8
E2.16	16.9	56.5	56.9	0.41	4.1	0.7
E2.17	16.9	49.7	50.0	0.34	3.4	0.7
E2.18	16.9	44.7	45.0	0.29	2.9	0.6
E2.19	16.9	40.9	41.2	0.25	2.5	0.6
E2.20	16.9	29.3	29.4	0.13	1.3	0.4
Stokes Little Wood AW						
E3.1	29.5	35.6	36.1	0.54	5.4	1.5

Receptor	Predicted Annual Mean Nutrient Nitrogen Deposition Rate (kgN/ha/yr)			Deposition Rate Change (kgN/ha/yr)	Percentage Change of 10 kgN/ha/yr CLo (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base + Cumulative Development [A]	2026 Base + Cumulative Development + Proposed Development [A]			
E3.2	29.5	35.1	35.6	0.50	5.0	1.4
E3.3	29.5	34.3	34.7	0.42	4.2	1.2
E3.4	29.5	32.3	32.5	0.23	2.3	0.7
E3.5	29.5	31.4	31.6	0.15	1.5	0.5
E3.6	29.5	31.0	31.1	0.11	1.1	0.4
E3.7	29.5	30.5	30.6	0.07	0.7	0.2
E3.8	29.5	30.3	30.4	0.05	0.5	0.2
E3.9	29.5	33.5	33.9	0.35	3.5	1.1
E3.10	29.5	32.2	32.5	0.23	2.3	0.7
E3.11	29.5	31.4	31.6	0.16	1.6	0.5
E3.12	29.5	31.0	31.1	0.11	1.1	0.4
E3.13	29.5	30.5	30.6	0.07	0.7	0.2
E3.14	29.5	30.3	30.3	0.05	0.5	0.2
Twelveacre Copse AW						
E4.1	29.5	33.3	33.6	0.34	3.4	1.0
E4.2	29.5	33.1	33.5	0.33	3.3	1.0
E4.3	29.5	32.5	32.8	0.27	2.7	0.8
E4.4	29.5	32.1	32.3	0.23	2.3	0.7
E4.5	29.5	31.0	31.1	0.12	1.2	0.4
E4.6	29.5	30.5	30.6	0.08	0.8	0.3
E4.7	29.5	30.3	30.3	0.06	0.6	0.2
E4.8	29.5	34.0	34.5	0.41	4.1	1.2
E4.9	29.5	33.2	33.5	0.33	3.3	1.0
E4.10	29.5	32.6	32.8	0.27	2.7	0.8
E4.11	29.5	32.1	32.3	0.23	2.3	0.7
E4.12	29.5	31.0	31.1	0.13	1.3	0.4
E4.13	29.5	30.5	30.6	0.08	0.8	0.3

Receptor	Predicted Annual Mean Nutrient Nitrogen Deposition Rate (kgN/ha/yr)			Deposition Rate Change (kgN/ha/yr)	Percentage Change of 10 kgN/ha/yr CLo (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base + Cumulative Development [A]	2026 Base + Cumulative Development + Proposed Development [A]			
E4.14	29.5	30.3	30.3	0.06	0.6	0.2
E4.15	29.5	30.1	30.1	0.04	0.4	0.1
E4.16	29.5	30.0	30.0	0.03	0.3	0.1

Table Notes:
[A] Exceedances of the CLo and 1% screening criterion are highlighted in red.

Table L: Predicted Annual Mean Total Acid Deposition Rates – Proposed Development In-Isolation

Receptor	Predicted Annual Mean Total Acid Deposition Rate (keq/ha/yr)			Deposition Rate Change (keq/ha/yr)	Percentage Change of 4.856 keq/ha/yr CLo (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base + Cumulative Development [A]	2026 Base + Cumulative Development + Proposed Development [A]			
Ardley Cutting and Quarry (B430)						
E1.1	1.3	1.8	1.8	0.01	0.3	0.7
E1.2	1.3	1.6	1.6	0.01	0.2	0.5
E1.3	1.3	1.5	1.5	0.01	0.1	0.4
E1.4	1.3	1.5	1.5	0.00	0.1	0.3
E1.5	1.3	1.4	1.5	0.00	0.1	0.3
E1.6	1.3	1.4	1.4	0.00	0.1	0.2
E1.7	1.3	1.8	1.8	0.01	0.3	0.8
E1.8	1.3	1.6	1.6	0.01	0.2	0.5
E1.9	1.3	1.5	1.5	0.01	0.1	0.4
E1.10	1.3	1.5	1.5	0.00	0.1	0.3
E1.11	1.3	1.4	1.4	0.00	0.1	0.3
E1.12	1.3	1.4	1.4	0.00	0.1	0.2
E1.13	1.3	1.4	1.4	0.00	0.0	0.1
E1.14	1.3	2.0	2.0	0.02	0.4	0.9
E1.15	1.3	1.8	1.8	0.01	0.2	0.7
E1.16	1.3	1.6	1.7	0.01	0.2	0.5
E1.17	1.3	1.6	1.6	0.01	0.1	0.5
E1.18	1.3	1.5	1.5	0.01	0.1	0.4
E1.19	1.3	1.5	1.5	0.00	0.1	0.3
E1.20	1.3	1.4	1.4	0.00	0.1	0.2
E1.21	1.3	2.0	2.0	0.02	0.4	0.9
E1.22	1.3	1.8	1.8	0.01	0.3	0.7
E1.23	1.3	1.6	1.7	0.01	0.2	0.5
E1.24	1.3	1.6	1.6	0.01	0.1	0.4

E1.25	1.3	1.5	1.5	0.01	0.1	0.4
E1.26	1.3	1.5	1.5	0.00	0.1	0.3
E1.27	1.3	1.4	1.4	0.00	0.1	0.2
Ardley Cutting and Quarry SSSI (M40)						
E2.1	1.3	3.3	3.3	0.02	0.4	0.6
E2.2	1.3	2.8	2.9	0.02	0.3	0.6
E2.3	1.3	2.6	2.6	0.01	0.3	0.5
E2.4	1.3	2.3	2.4	0.01	0.2	0.5
E2.5	1.3	1.7	1.7	0.00	0.1	0.3
E2.6	1.3	3.0	3.1	0.02	0.4	0.6
E2.7	1.3	2.8	2.9	0.02	0.3	0.6
E2.8	1.3	2.6	2.6	0.01	0.3	0.5
E2.9	1.3	2.3	2.4	0.01	0.2	0.5
E2.10	1.3	4.3	4.4	0.03	0.7	0.7
E2.11	1.3	4.1	4.1	0.03	0.6	0.7
E2.12	1.3	3.6	3.7	0.02	0.5	0.7
E2.13	1.3	3.3	3.3	0.02	0.4	0.6
E2.14	1.3	3.0	3.0	0.02	0.4	0.6
E2.15	1.3	4.8	4.9	0.04	0.8	0.8
E2.16	1.3	4.1	4.2	0.03	0.6	0.7
E2.17	1.3	3.6	3.7	0.02	0.5	0.7
E2.18	1.3	3.3	3.3	0.02	0.4	0.6
E2.19	1.3	3.0	3.0	0.02	0.4	0.6
E2.20	1.3	2.2	2.2	0.01	0.2	0.4
Receptor	**Predicted Annual Mean Total Acid Deposition Rate (keq/ha/yr)**			**Deposition Rate Change (keq/ha/yr)**	**Percentage Change of 10.871 keq/ha/yr CLo (%) [A]**	**Percentage Change of Proposed Development (%)**
	Background	**2026 Base + Cumulative Development [A]**	**2026 Base + Cumulative Development + Proposed Development [A]**			
Stokes Little Wood AW						
E3.1	2.1	2.5	2.6	0.04	0.4	1.5

E3.2	2.1	2.5	2.5	0.04	0.3	1.4
E3.3	2.1	2.5	2.5	0.03	0.3	1.2
E3.4	2.1	2.3	2.3	0.02	0.2	0.7
E3.5	2.1	2.2	2.3	0.01	0.1	0.5
E3.6	2.1	2.2	2.2	0.01	0.1	0.4
E3.7	2.1	2.2	2.2	0.01	0.0	0.2
E3.8	2.1	2.2	2.2	0.00	0.0	0.2
E3.9	2.1	2.4	2.4	0.03	0.2	1.1
E3.10	2.1	2.3	2.3	0.02	0.2	0.7
E3.11	2.1	2.2	2.3	0.01	0.1	0.5
E3.12	2.1	2.2	2.2	0.01	0.1	0.4
E3.13	2.1	2.2	2.2	0.01	0.0	0.2
E3.14	2.1	2.2	2.2	0.00	0.0	0.2
Receptor	**Predicted Annual Mean Total Acid Deposition Rate (keq/ha/yr)**			**Deposition Rate Change (keq/ha/yr)**	**Percentage Change of 10.942 keq/ha/yr CLo (%) [A]**	**Percentage Change of Proposed Development (%)**
	Background	**2026 Base + Cumulative Development [A]**	**2026 Base + Cumulative Development + Proposed Development [A]**			
Twelveacre Copse AW						
E4.1	2.1	2.4	2.4	0.02	0.2	1.0
E4.2	2.1	2.4	2.4	0.02	0.2	1.0
E4.3	2.1	2.3	2.3	0.02	0.2	0.8
E4.4	2.1	2.3	2.3	0.02	0.1	0.7
E4.5	2.1	2.2	2.2	0.01	0.1	0.4
E4.6	2.1	2.2	2.2	0.01	0.1	0.3
E4.7	2.1	2.2	2.2	0.00	0.0	0.2
E4.8	2.1	2.4	2.5	0.03	0.3	1.2
E4.9	2.1	2.4	2.4	0.02	0.2	1.0
E4.10	2.1	2.3	2.3	0.02	0.2	0.8
E4.11	2.1	2.3	2.3	0.02	0.2	0.7
E4.12	2.1	2.2	2.2	0.01	0.1	0.4
E4.13	2.1	2.2	2.2	0.01	0.1	0.3

E4.14	2.1	2.2	2.2	0.00	0.0	0.2
E4.15	2.1	2.1	2.2	0.00	0.0	0.1
E4.16	2.1	2.1	2.1	0.00	0.0	0.1

Table Notes:
(A) Exceedances of the CLo and 1% screening criterion are highlighted in red.

Table M: Predicted Annual Mean NOx Concentrations – Proposed Development In-Combination

Receptor	Predicted Annual Mean NOx Concentration (µg/m^3)			Concentration Change (ug/m^3)	Percentage Change of 30 ug/m^3 CLe (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base [A]	2026 Base + Cumulative Development + Proposed Development [A]			
Ardley Cutting and Quarry (B430)						
E1.1	13.8	24.5	29.3	4.79	16.0	17.1
E1.2	13.8	21.9	25.4	3.54	11.8	13.9
E1.3	13.8	20.1	22.7	2.64	8.8	11.2
E1.4	13.8	19.0	21.1	2.12	7.1	9.4
E1.5	13.8	18.3	20.0	1.76	5.9	8.1
E1.6	13.8	17.7	19.2	1.51	5.0	7.1
E1.7	13.8	25.3	30.5	5.21	17.4	18.1
E1.8	13.8	21.9	25.4	3.52	11.7	13.9
E1.9	13.8	20.0	22.7	2.63	8.8	11.2
E1.10	13.8	18.9	21.0	2.10	7.0	9.3
E1.11	13.8	18.2	19.9	1.74	5.8	8.0
E1.12	13.8	17.7	19.2	1.49	5.0	7.0
E1.13	13.8	16.3	17.1	0.83	2.8	4.2
E1.14	13.8	29.2	36.2	6.99	23.3	21.4
E1.15	13.8	24.6	29.4	4.76	15.9	16.9
E1.16	13.8	22.5	26.3	3.76	12.5	14.5
E1.17	13.8	21.2	24.4	3.14	10.5	12.7
E1.18	13.8	20.3	23.0	2.70	9.0	11.3
E1.19	13.8	19.6	22.0	2.37	7.9	10.2
E1.20	13.8	17.7	19.2	1.44	4.8	6.8
E1.21	13.8	30.1	37.6	7.46	24.9	22.2
E1.22	13.8	25.0	30.0	4.97	16.6	17.4
E1.23	13.8	22.7	26.6	3.88	12.9	14.8
E1.24	13.8	21.3	24.5	3.20	10.7	12.9

E1.25	13.8	20.3	23.1	2.72	9.1	11.4
E1.26	13.8	19.6	22.0	2.37	7.9	10.3
E1.27	13.8	17.7	19.1	1.42	4.7	6.7
Ardley Cutting and Quarry SSSI (M40)						
E2.1	15.3	85.2	86.7	1.50	5.0	1.7
E2.2	15.3	71.7	72.9	1.18	3.9	1.6
E2.3	15.3	62.9	63.9	1.00	3.3	1.5
E2.4	15.3	56.6	57.4	0.83	2.8	1.4
E2.5	15.3	35.8	36.3	0.48	1.6	1.3
E2.6	15.3	77.6	78.9	1.26	4.2	1.6
E2.7	15.3	71.6	72.8	1.20	4.0	1.6
E2.8	15.3	62.9	63.9	1.04	3.5	1.6
E2.9	15.3	56.6	57.4	0.87	2.9	1.5
E2.10	15.3	124.8	126.9	2.09	7.0	1.6
E2.11	15.3	118.6	120.6	2.01	6.7	1.7
E2.12	15.3	104.8	106.5	1.73	5.8	1.6
E2.13	15.3	94.3	95.8	1.51	5.0	1.6
E2.14	15.3	85.9	87.4	1.46	4.9	1.7
E2.15	15.3	138.5	140.9	2.38	7.9	1.7
E2.16	15.3	118.5	120.5	2.06	6.9	1.7
E2.17	15.3	104.5	106.3	1.79	6.0	1.7
E2.18	15.3	93.9	95.5	1.62	5.4	1.7
E2.19	15.3	85.6	87.0	1.35	4.5	1.5
E2.20	15.3	57.3	58.2	0.86	2.9	1.5
Stokes Little Wood AW						
E3.1	8.9	18.2	20.1	1.93	6.4	9.9
E3.2	8.9	17.6	19.4	1.80	6.0	9.5
E3.3	8.9	16.7	18.3	1.60	5.3	8.8
E3.4	8.9	14.2	15.2	1.02	3.4	6.5
E3.5	8.9	13.1	13.8	0.75	2.5	5.2

E3.6	8.9	12.4	13.0	0.59	2.0	4.3
E3.7	8.9	11.6	12.1	0.43	1.4	3.3
E3.8	8.9	11.2	11.5	0.33	1.1	2.6
E3.9	8.9	15.7	17.1	1.38	4.6	8.1
E3.10	8.9	14.1	15.1	1.00	3.3	6.4
E3.11	8.9	13.0	13.7	0.74	2.5	5.1
E3.12	8.9	12.3	12.9	0.58	1.9	4.2
E3.13	8.9	11.6	12.0	0.41	1.4	3.2
E3.14	8.9	11.2	11.5	0.32	1.1	2.5
Twelveacre Copse AW						
E4.1	8.9	14.7	15.9	1.22	4.1	7.6
E4.2	8.9	14.5	15.7	1.18	3.9	7.5
E4.3	8.9	13.8	14.8	1.01	3.4	6.7
E4.4	8.9	13.2	14.1	0.88	2.9	6.0
E4.5	8.9	11.8	12.4	0.54	1.8	4.1
E4.6	8.9	11.2	11.6	0.40	1.3	3.2
E4.7	8.9	10.8	11.2	0.31	1.0	2.6
E4.8	8.9	15.5	17.0	1.43	4.8	8.5
E4.9	8.9	14.6	15.8	1.20	4.0	7.5
E4.10	8.9	13.8	14.8	1.03	3.4	6.8
E4.11	8.9	13.3	14.2	0.91	3.0	6.2
E4.12	8.9	11.8	12.4	0.56	1.9	4.3
E4.13	8.9	11.2	11.6	0.41	1.4	3.3
E4.14	8.9	10.8	11.1	0.31	1.0	2.6
E4.15	8.9	10.4	10.7	0.22	0.7	1.8
E4.16	8.9	10.2	10.4	0.17	0.6	1.5

Table Notes:
(A) Exceedances of the CLe and 1% screening criterion are highlighted in red.

Table N: Predicted Annual Mean NH_3 Concentrations – Proposed Development In-Combination

Receptor	Predicted Annual Mean NH_3 Concentration (µg/m^3)			Concentration Change (ug/m^3)	Percentage Change of 1 ug/m^3 CLe (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base [A]	2026 Base + Cumulative Development + Proposed Development [A]			
Ardley Cutting and Quarry (B430)						
E1.1	1.9	2.6	3.0	0.35	34.9	13.2
E1.2	1.9	2.4	2.7	0.24	24.1	10.0
E1.3	1.9	2.3	2.4	0.17	16.6	7.3
E1.4	1.9	2.2	2.3	0.12	12.4	5.7
E1.5	1.9	2.1	2.2	0.10	9.7	4.6
E1.6	1.9	2.1	2.2	0.08	7.9	3.8
E1.7	1.9	2.7	3.1	0.38	37.9	14.0
E1.8	1.9	2.4	2.6	0.24	23.7	9.9
E1.9	1.9	2.3	2.4	0.16	16.4	7.3
E1.10	1.9	2.2	2.3	0.12	12.3	5.7
E1.11	1.9	2.1	2.2	0.10	9.6	4.6
E1.12	1.9	2.1	2.2	0.08	7.8	3.8
E1.13	1.9	2.0	2.0	0.04	3.6	1.8
E1.14	1.9	3.0	3.6	0.53	52.7	17.4
E1.15	1.9	2.6	2.9	0.33	33.0	12.6
E1.16	1.9	2.4	2.7	0.24	24.0	9.9
E1.17	1.9	2.3	2.5	0.19	18.6	8.1
E1.18	1.9	2.2	2.4	0.15	15.0	6.7
E1.19	1.9	2.2	2.3	0.12	12.5	5.7
E1.20	1.9	2.0	2.1	0.06	6.1	3.0
E1.21	1.9	3.0	3.5	0.52	51.8	17.3
E1.22	1.9	2.6	2.9	0.33	32.8	12.6
E1.23	1.9	2.4	2.7	0.24	23.8	9.9
E1.24	1.9	2.3	2.5	0.18	18.4	8.0

Receptor	Predicted Annual Mean NH_3 Concentration (µg/m^3)			Concentration Change (ug/m^3)	Percentage Change of 1 ug/m^3 CLe (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base [A]	2026 Base + Cumulative Development + Proposed Development [A]			
E1.25	1.9	2.2	2.4	0.15	14.8	6.7
E1.26	1.9	2.2	2.3	0.12	12.3	5.6
E1.27	1.9	2.0	2.1	0.06	6.0	2.9
Ardley Cutting and Quarry SSSI (M40)						
E2.1	2.0	6.4	6.5	0.12	11.6	1.8
E2.2	2.0	5.3	5.4	0.09	8.7	1.6
E2.3	2.0	4.7	4.7	0.07	7.2	1.5
E2.4	2.0	4.2	4.3	0.06	5.8	1.4
E2.5	2.0	2.9	2.9	0.02	2.2	0.8
E2.6	2.0	5.8	5.9	0.09	9.5	1.6
E2.7	2.0	5.3	5.4	0.09	8.6	1.6
E2.8	2.0	4.7	4.7	0.07	7.3	1.6
E2.9	2.0	4.2	4.3	0.06	5.9	1.4
E2.10	2.0	8.8	8.9	0.17	16.9	1.9
E2.11	2.0	8.2	8.4	0.16	16.0	1.9
E2.12	2.0	7.1	7.2	0.13	12.7	1.8
E2.13	2.0	6.3	6.4	0.10	10.5	1.7
E2.14	2.0	5.7	5.7	0.09	8.7	1.5
E2.15	2.0	10.0	10.2	0.20	20.2	2.0
E2.16	2.0	8.3	8.4	0.15	15.1	1.8
E2.17	2.0	7.1	7.2	0.13	12.7	1.8
E2.18	2.0	6.3	6.4	0.11	10.7	1.7
E2.19	2.0	5.7	5.7	0.09	9.4	1.7
E2.20	2.0	3.8	3.8	0.04	4.1	1.1
Stokes Little Wood AW						
E3.1	1.8	2.3	2.4	0.12	11.8	5.1

Receptor	Predicted Annual Mean NH_3 Concentration (µg/m^3)			Concentration Change (ug/m^3)	Percentage Change of 1 ug/m^3 CLe (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base [A]	2026 Base + Cumulative Development + Proposed Development [A]			
E3.2	1.8	2.3	2.4	0.11	10.8	4.7
E3.3	1.8	2.2	2.3	0.09	9.1	4.1
E3.4	1.8	2.0	2.1	0.05	4.7	2.3
E3.5	1.8	1.9	2.0	0.03	3.0	1.5
E3.6	1.8	1.9	1.9	0.02	2.1	1.1
E3.7	1.8	1.9	1.9	0.01	1.3	0.7
E3.8	1.8	1.9	1.9	0.01	0.9	0.5
E3.9	1.8	2.1	2.2	0.07	7.4	3.5
E3.10	1.8	2.0	2.1	0.05	4.6	2.3
E3.11	1.8	1.9	2.0	0.03	3.0	1.5
E3.12	1.8	1.9	1.9	0.02	2.1	1.1
E3.13	1.8	1.9	1.9	0.01	1.3	0.7
E3.14	1.8	1.9	1.9	0.01	0.9	0.5
Twelveacre Copse AW						
E4.1	1.9	2.2	2.3	0.07	7.4	3.3
E4.2	1.9	2.2	2.3	0.07	7.0	3.2
E4.3	1.9	2.2	2.2	0.06	5.8	2.7
E4.4	1.9	2.1	2.2	0.05	4.7	2.2
E4.5	1.9	2.0	2.0	0.02	2.5	1.2
E4.6	1.9	2.0	2.0	0.02	1.5	0.8
E4.7	1.9	2.0	2.0	0.01	1.1	0.5
E4.8	1.9	2.3	2.4	0.09	9.0	3.9
E4.9	1.9	2.2	2.3	0.07	7.1	3.2
E4.10	1.9	2.2	2.2	0.06	5.8	2.7
E4.11	1.9	2.1	2.2	0.05	4.9	2.3
E4.12	1.9	2.0	2.0	0.02	2.4	1.2
E4.13	1.9	2.0	2.0	0.02	1.6	0.8

Receptor	Predicted Annual Mean NH_3 Concentration ($\mu g/m^3$)			Concentration Change (ug/m^3)	Percentage Change of 1 ug/m^3 CLe (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base [A]	2026 Base + Cumulative Development + Proposed Development [A]			
E4.14	1.9	2.0	2.0	0.01	1.1	0.6
E4.15	1.9	1.9	2.0	0.01	0.7	0.3
E4.16	1.9	1.9	1.9	0.00	0.5	0.2

Table Notes:
[A] Exceedances of the CLe and 1% screening criterion are highlighted in red.

Table O: Predicted Annual Mean Nutrient Nitrogen Deposition Rates – Proposed Development In-Combination

Receptor	Predicted Annual Mean Nutrient Nitrogen Deposition Rate (kgN/ha/yr)			Deposition Rate Change (kgN/ha/yr)	Percentage Change of 10 kgN/ha/yr CLo (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base [A]	2026 Base + Cumulative Development + Proposed Development [A]			
Ardley Cutting and Quarry (B430)						
E1.1	17.1	21.8	24.0	2.17	21.7	10.0
E1.2	17.1	20.4	21.9	1.52	15.2	7.5
E1.3	17.1	19.4	20.5	1.06	10.6	5.5
E1.4	17.1	18.9	19.7	0.81	8.1	4.3
E1.5	17.1	18.6	19.2	0.64	6.4	3.5
E1.6	17.1	18.3	18.9	0.53	5.3	2.9
E1.7	17.1	22.2	24.5	2.36	23.6	10.6
E1.8	17.1	20.4	21.9	1.50	15.0	7.4
E1.9	17.1	19.4	20.5	1.05	10.5	5.4
E1.10	17.1	18.9	19.7	0.80	8.0	4.2
E1.11	17.1	18.5	19.2	0.64	6.4	3.4
E1.12	17.1	18.3	18.8	0.52	5.2	2.8
E1.13	17.1	17.7	18.0	0.25	2.5	1.4
E1.14	17.1	24.2	27.4	3.25	32.5	13.4
E1.15	17.1	21.6	23.7	2.07	20.7	9.6
E1.16	17.1	20.5	22.0	1.53	15.3	7.5
E1.17	17.1	19.8	21.0	1.21	12.1	6.1
E1.18	17.1	19.3	20.3	0.99	9.9	5.1
E1.19	17.1	19.0	19.8	0.83	8.3	4.4
E1.20	17.1	18.1	18.6	0.43	4.3	2.4
E1.21	17.1	24.1	27.3	3.23	32.3	13.4
E1.22	17.1	21.6	23.7	2.07	20.7	9.6
E1.23	17.1	20.5	22.0	1.53	15.3	7.5
E1.24	17.1	19.8	21.0	1.20	12.0	6.1

Receptor	Predicted Annual Mean Nutrient Nitrogen Deposition Rate (kgN/ha/yr)			Deposition Rate Change (kgN/ha/yr)	Percentage Change of 10 kgN/ha/yr CLo (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base [A]	2026 Base + Cumulative Development + Proposed Development [A]			
E1.25	17.1	19.3	20.3	0.98	9.8	5.1
E1.26	17.1	19.0	19.8	0.82	8.2	4.3
E1.27	17.1	18.1	18.5	0.42	4.2	2.3
Ardley Cutting and Quarry SSSI (M40)						
E2.1	16.9	44.5	45.2	0.68	6.8	1.5
E2.2	16.9	38.2	38.7	0.52	5.2	1.4
E2.3	16.9	34.2	34.6	0.43	4.3	1.3
E2.4	16.9	31.4	31.7	0.35	3.5	1.1
E2.5	16.9	23.0	23.2	0.15	1.5	0.6
E2.6	16.9	40.9	41.5	0.56	5.6	1.4
E2.7	16.9	38.1	38.6	0.52	5.2	1.4
E2.8	16.9	34.2	34.6	0.44	4.4	1.3
E2.9	16.9	31.4	31.7	0.36	3.6	1.1
E2.10	16.9	58.9	59.8	0.98	9.8	1.7
E2.11	16.9	55.8	56.8	0.93	9.3	1.7
E2.12	16.9	49.2	50.0	0.75	7.5	1.5
E2.13	16.9	44.4	45.0	0.62	6.2	1.4
E2.14	16.9	40.7	41.2	0.53	5.3	1.3
E2.15	16.9	65.8	66.9	1.16	11.6	1.8
E2.16	16.9	56.0	56.9	0.89	8.9	1.6
E2.17	16.9	49.3	50.0	0.75	7.5	1.5
E2.18	16.9	44.4	45.0	0.64	6.4	1.4
E2.19	16.9	40.6	41.2	0.56	5.6	1.4
E2.20	16.9	29.1	29.4	0.26	2.6	0.9
Stokes Little Wood AW						
E3.1	29.5	34.9	36.1	1.22	12.2	3.5

Receptor	Predicted Annual Mean Nutrient Nitrogen Deposition Rate (kgN/ha/yr)			Deposition Rate Change (kgN/ha/yr)	Percentage Change of 10 kgN/ha/yr CLo (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base [A]	2026 Base + Cumulative Development + Proposed Development [A]			
E3.2	29.5	34.5	35.6	1.12	11.2	3.2
E3.3	29.5	33.8	34.7	0.95	9.5	2.8
E3.4	29.5	32.0	32.5	0.53	5.3	1.6
E3.5	29.5	31.2	31.6	0.35	3.5	1.1
E3.6	29.5	30.9	31.1	0.26	2.6	0.8
E3.7	29.5	30.4	30.6	0.17	1.7	0.6
E3.8	29.5	30.2	30.4	0.12	1.2	0.4
E3.9	29.5	33.1	33.9	0.79	7.9	2.4
E3.10	29.5	31.9	32.5	0.52	5.2	1.6
E3.11	29.5	31.2	31.6	0.35	3.5	1.1
E3.12	29.5	30.8	31.1	0.26	2.6	0.8
E3.13	29.5	30.4	30.6	0.17	1.7	0.5
E3.14	29.5	30.2	30.3	0.12	1.2	0.4
Twelveacre Copse AW						
E4.1	29.5	32.9	33.6	0.77	7.7	2.3
E4.2	29.5	32.7	33.5	0.73	7.3	2.2
E4.3	29.5	32.2	32.8	0.61	6.1	1.9
E4.4	29.5	31.8	32.3	0.51	5.1	1.6
E4.5	29.5	30.8	31.1	0.28	2.8	0.9
E4.6	29.5	30.4	30.6	0.18	1.8	0.6
E4.7	29.5	30.2	30.3	0.14	1.4	0.4
E4.8	29.5	33.5	34.5	0.92	9.2	2.8
E4.9	29.5	32.8	33.5	0.74	7.4	2.3
E4.10	29.5	32.2	32.8	0.61	6.1	1.9
E4.11	29.5	31.8	32.3	0.52	5.2	1.6
E4.12	29.5	30.8	31.1	0.28	2.8	0.9
E4.13	29.5	30.4	30.6	0.19	1.9	0.6

Receptor	Predicted Annual Mean Nutrient Nitrogen Deposition Rate (kgN/ha/yr)			Deposition Rate Change (kgN/ha/yr)	Percentage Change of 10 kgN/ha/yr CLo (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base [A]	2026 Base + Cumulative Development + Proposed Development [A]			
E4.14	29.5	30.2	30.3	0.13	1.3	0.4
E4.15	29.5	30.0	30.1	0.09	0.9	0.3
E4.16	29.5	29.9	30.0	0.06	0.6	0.2

Table Notes:
[A] Exceedances of the CLo and 1% screening criterion are highlighted in red.

Table P: Predicted Annual Mean Total Acid Deposition Rates – Proposed Development In-Combination

Receptor	Predicted Annual Mean Total Acid Deposition Rate (keq/ha/yr)			Deposition Rate Change (keq/ha/yr)	Percentage Change of 4.856 keq/ha/yr CLo (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base [A]	2026 Base + Cumulative Development + Proposed Development [A]			
Ardley Cutting and Quarry (B430)						
E1.1	1.3	1.6	1.8	0.16	3.2	9.5
E1.2	1.3	1.5	1.6	0.11	2.2	7.1
E1.3	1.3	1.5	1.5	0.08	1.6	5.2
E1.4	1.3	1.4	1.5	0.06	1.2	4.0
E1.5	1.3	1.4	1.5	0.05	0.9	3.3
E1.6	1.3	1.4	1.4	0.04	0.8	2.7
E1.7	1.3	1.7	1.8	0.17	3.5	10.1
E1.8	1.3	1.5	1.6	0.11	2.2	7.0
E1.9	1.3	1.5	1.5	0.08	1.5	5.1
E1.10	1.3	1.4	1.5	0.06	1.2	4.0
E1.11	1.3	1.4	1.4	0.05	0.9	3.2
E1.12	1.3	1.4	1.4	0.04	0.8	2.7
E1.13	1.3	1.3	1.4	0.02	0.4	1.3
E1.14	1.3	1.8	2.0	0.23	4.8	12.9
E1.15	1.3	1.6	1.8	0.15	3.0	9.1
E1.16	1.3	1.5	1.7	0.11	2.3	7.1
E1.17	1.3	1.5	1.6	0.09	1.8	5.8
E1.18	1.3	1.5	1.5	0.07	1.5	4.8
E1.19	1.3	1.4	1.5	0.06	1.2	4.1
E1.20	1.3	1.4	1.4	0.03	0.6	2.2
E1.21	1.3	1.8	2.0	0.23	4.8	12.8
E1.22	1.3	1.6	1.8	0.15	3.0	9.1
E1.23	1.3	1.5	1.7	0.11	2.2	7.1
E1.24	1.3	1.5	1.6	0.09	1.8	5.7

E1.25	1.3	1.5	1.5	0.07	1.4	4.8
E1.26	1.3	1.4	1.5	0.06	1.2	4.1
E1.27	1.3	1.4	1.4	0.03	0.6	2.2
Ardley Cutting and Quarry SSSI (M40)						
E2.1	1.3	3.3	3.3	0.05	1.0	1.5
E2.2	1.3	2.8	2.9	0.04	0.8	1.3
E2.3	1.3	2.5	2.6	0.03	0.6	1.2
E2.4	1.3	2.3	2.4	0.03	0.5	1.1
E2.5	1.3	1.7	1.7	0.01	0.2	0.6
E2.6	1.3	3.0	3.1	0.04	0.8	1.3
E2.7	1.3	2.8	2.9	0.04	0.8	1.3
E2.8	1.3	2.5	2.6	0.03	0.6	1.2
E2.9	1.3	2.3	2.4	0.03	0.5	1.1
E2.10	1.3	4.3	4.4	0.07	1.4	1.6
E2.11	1.3	4.1	4.1	0.07	1.4	1.6
E2.12	1.3	3.6	3.7	0.05	1.1	1.5
E2.13	1.3	3.3	3.3	0.04	0.9	1.4
E2.14	1.3	3.0	3.0	0.04	0.8	1.3
E2.15	1.3	4.8	4.9	0.08	1.7	1.7
E2.16	1.3	4.1	4.2	0.06	1.3	1.5
E2.17	1.3	3.6	3.7	0.05	1.1	1.5
E2.18	1.3	3.3	3.3	0.05	0.9	1.4
E2.19	1.3	3.0	3.0	0.04	0.8	1.3
E2.20	1.3	2.2	2.2	0.02	0.4	0.9

Receptor	Predicted Annual Mean Total Acid Deposition Rate (keq/ha/yr)			Deposition Rate Change (keq/ha/yr)	Percentage Change of 10.871 keq/ha/yr CLo (%) [A]	Percentage Change of Proposed Development (%)
	Background	2026 Base [A]	2026 Base + Cumulative Development + Proposed Development [A]			
Stokes Little Wood AW						
E3.1	2.1	2.5	2.6	0.09	0.8	3.5

E3.2	2.1	2.5	2.5	0.08	0.7	3.2
E3.3	2.1	2.4	2.5	0.07	0.6	2.8
E3.4	2.1	2.3	2.3	0.04	0.3	1.6
E3.5	2.1	2.2	2.3	0.03	0.2	1.1
E3.6	2.1	2.2	2.2	0.02	0.2	0.8
E3.7	2.1	2.2	2.2	0.01	0.1	0.6
E3.8	2.1	2.2	2.2	0.01	0.1	0.4
E3.9	2.1	2.4	2.4	0.06	0.5	2.4
E3.10	2.1	2.3	2.3	0.04	0.3	1.6
E3.11	2.1	2.2	2.3	0.02	0.2	1.1
E3.12	2.1	2.2	2.2	0.02	0.2	0.8
E3.13	2.1	2.2	2.2	0.01	0.1	0.5
E3.14	2.1	2.2	2.2	0.01	0.1	0.4
Receptor	**Predicted Annual Mean Total Acid Deposition Rate (keq/ha/yr)**			**Deposition Rate Change (keq/ha/yr)**	**Percentage Change of 10.942 keq/ha/yr CLo (%) [A]**	**Percentage Change of Proposed Development (%)**
	Background	**2026 Base [A]**	**2026 Base + Cumulative Development + Proposed Development [A]**			
Twelveacre Copse AW						
E4.1	2.1	2.3	2.4	0.05	0.5	2.3
E4.2	2.1	2.3	2.4	0.05	0.5	2.2
E4.3	2.1	2.3	2.3	0.04	0.4	1.9
E4.4	2.1	2.3	2.3	0.04	0.3	1.6
E4.5	2.1	2.2	2.2	0.02	0.2	0.9
E4.6	2.1	2.2	2.2	0.01	0.1	0.6
E4.7	2.1	2.2	2.2	0.01	0.1	0.4
E4.8	2.1	2.4	2.5	0.07	0.6	2.7
E4.9	2.1	2.3	2.4	0.05	0.5	2.3
E4.10	2.1	2.3	2.3	0.04	0.4	1.9
E4.11	2.1	2.3	2.3	0.04	0.3	1.6
E4.12	2.1	2.2	2.2	0.02	0.2	0.9
E4.13	2.1	2.2	2.2	0.01	0.1	0.6

E4.14	2.1	2.2	2.2	0.01	0.1	0.4
E4.15	2.1	2.1	2.2	0.01	0.1	0.3
E4.16	2.1	2.1	2.1	0.00	0.0	0.2

Table Notes:
(A) Exceedances of the CLo and 1% screening criterion are highlighted in red.

6.5 Figures

Figure I: Modelled Road Links: Human Receptor Locations (Northern Extent)

Figure J: Modelled Road Links: Human Receptor and Verification Locations (Southern Extent)

Figure K: Modelled Road Links (Ecological Receptors)

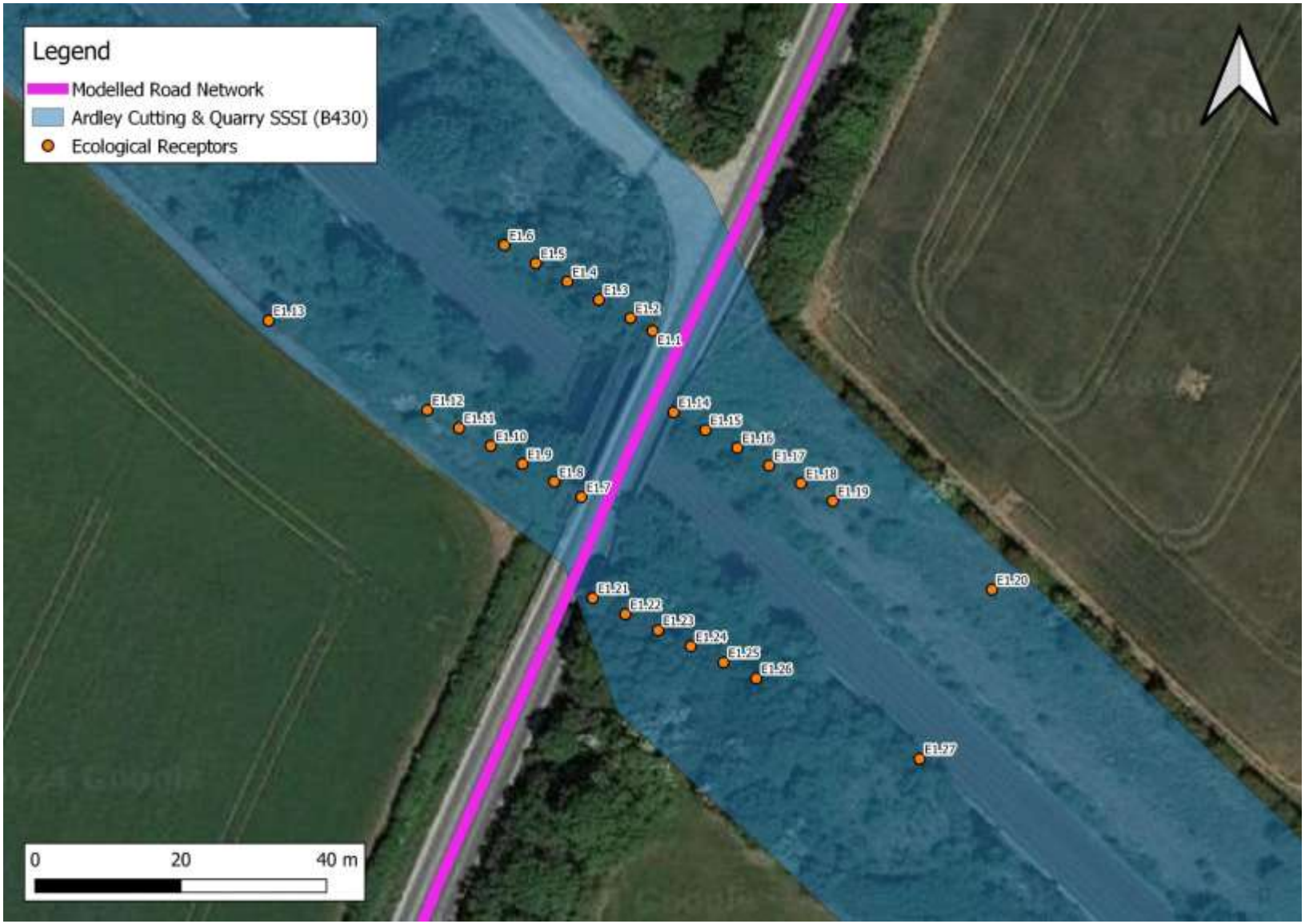


Figure L: Modelled Ecological Receptors (Ardley Cutting and Quarry SSSI (B430))

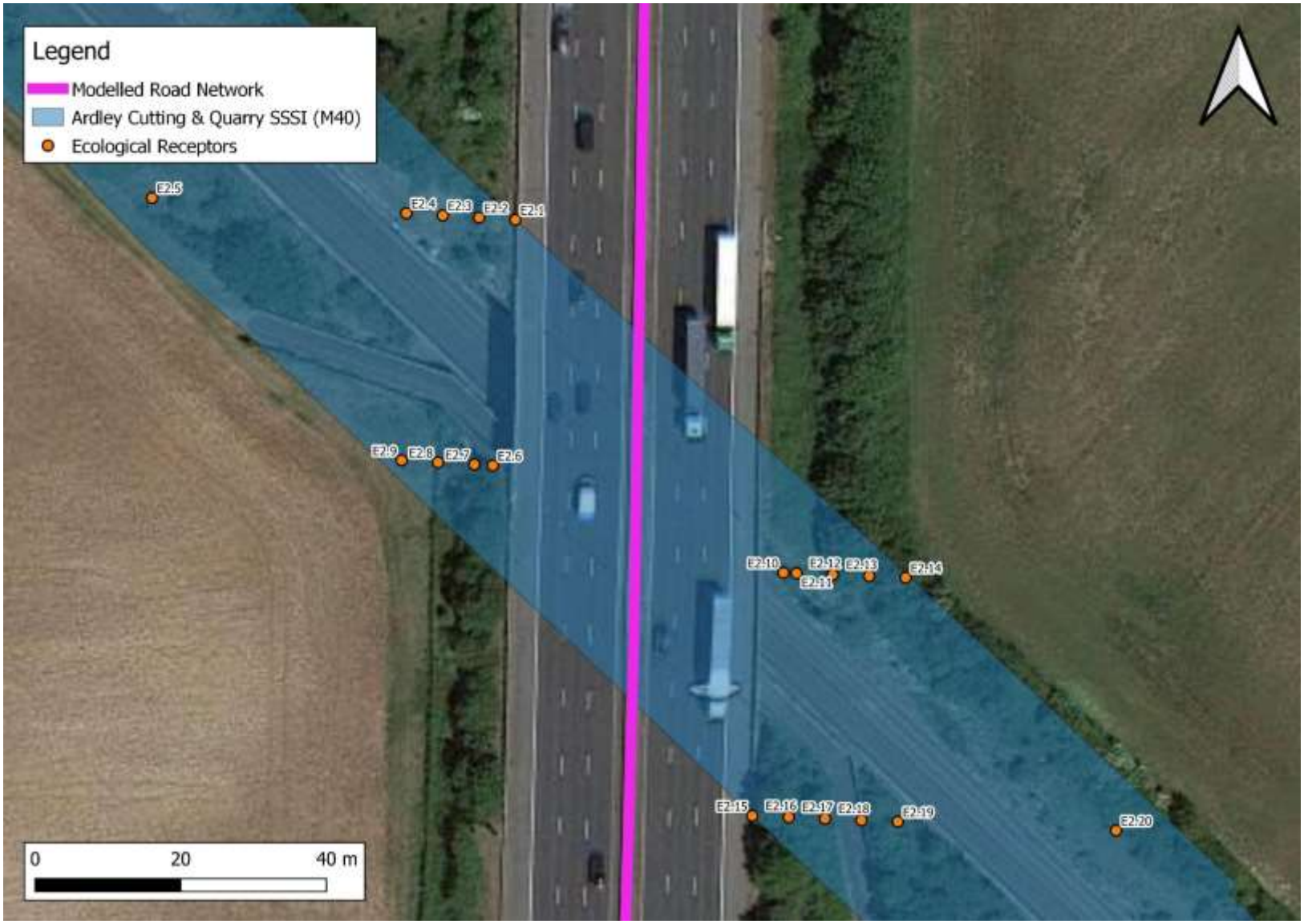


Figure M: Modelled Ecological Receptors (Ardley Cutting and Quarry SSSI (M40))

Figure N: Modelled Ecological Receptors (Stokes Little Wood AW)

Figure O: Modelled Ecological Receptors (Twelveacre Copse AW)

Figure P: Site Setting and Relevant Monitoring Locations

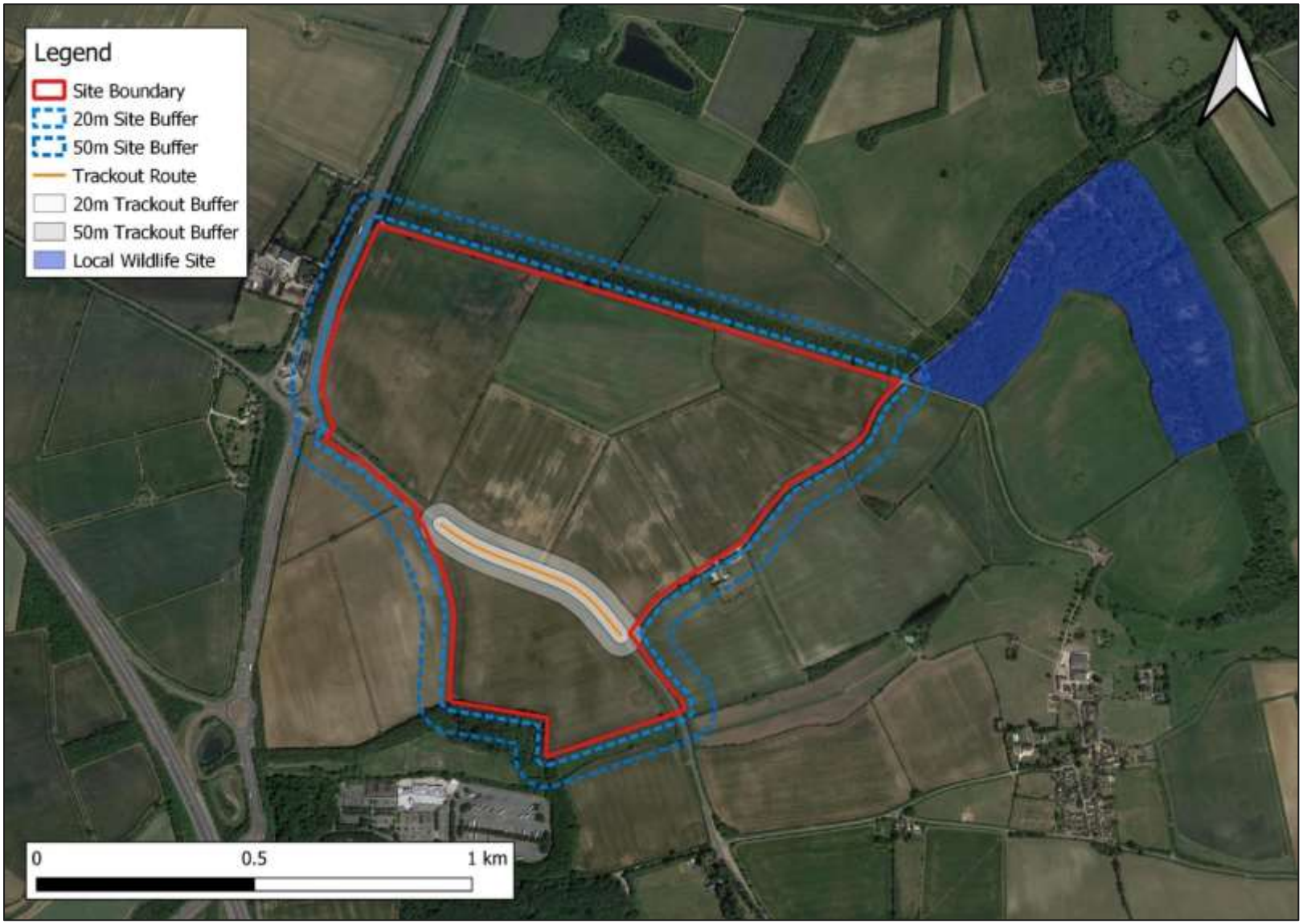


Figure Q: Construction Dust Assessment Buffers

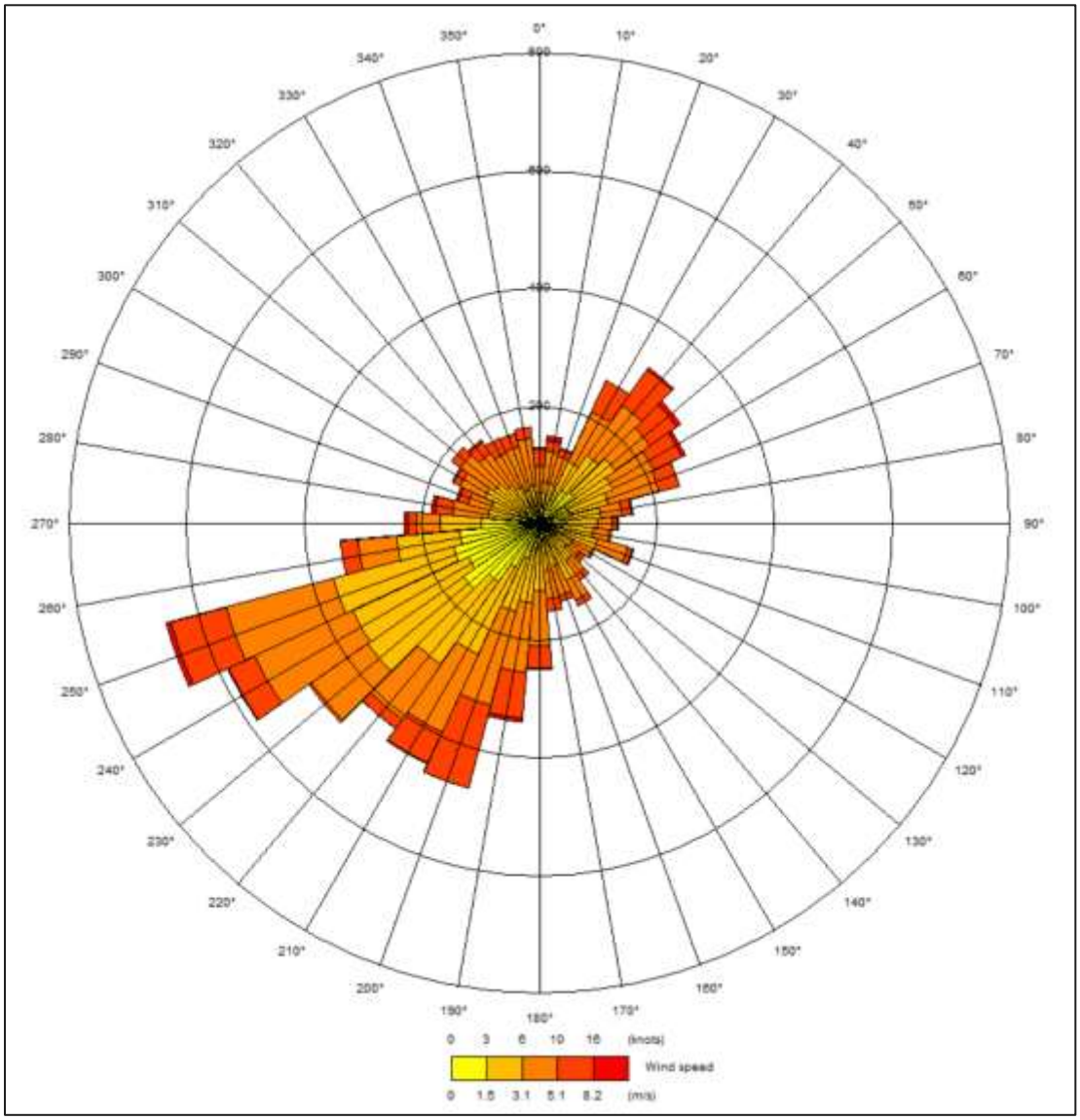


Figure R: Wind Rose for Brize Norton Meteorological Station (2022)

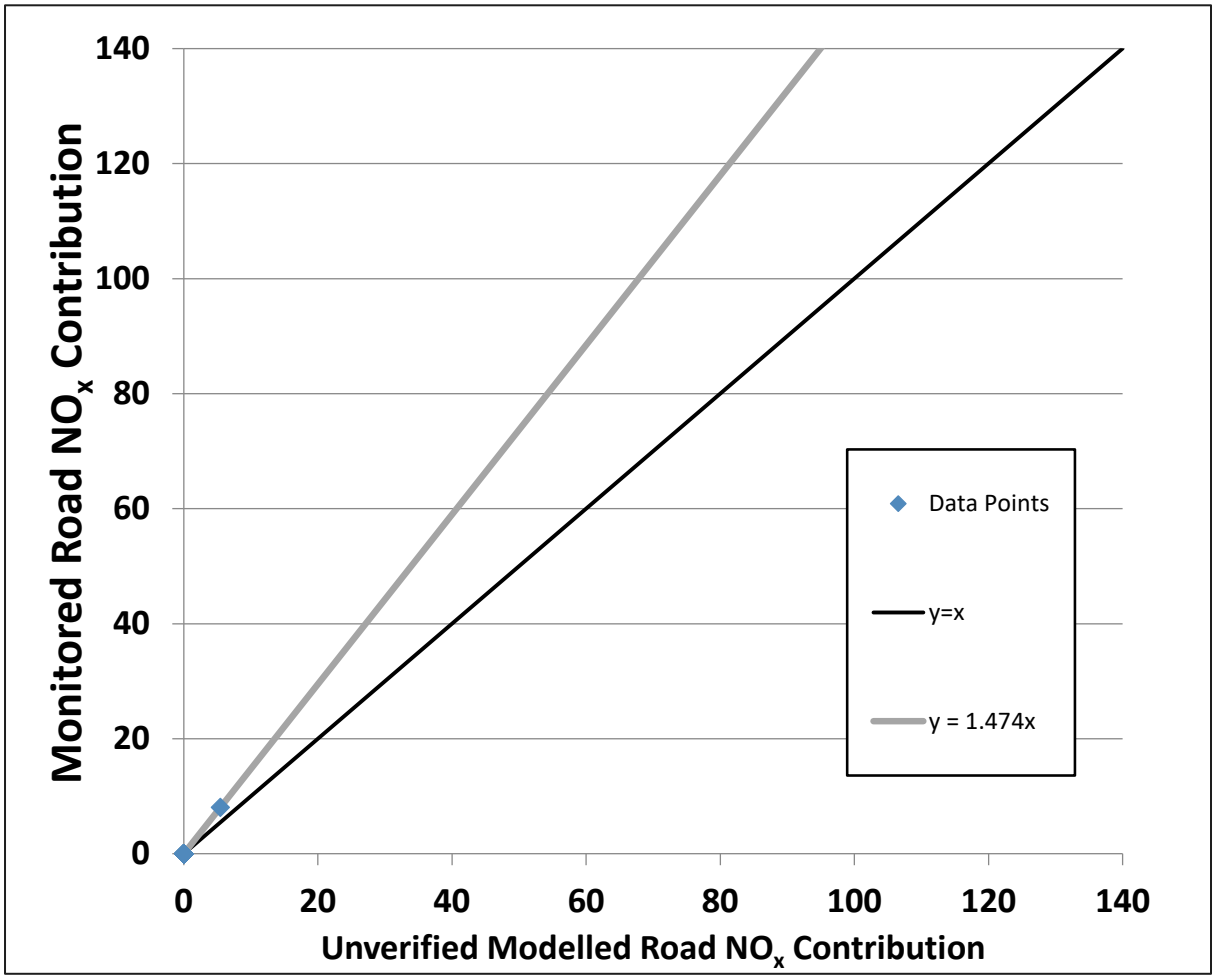
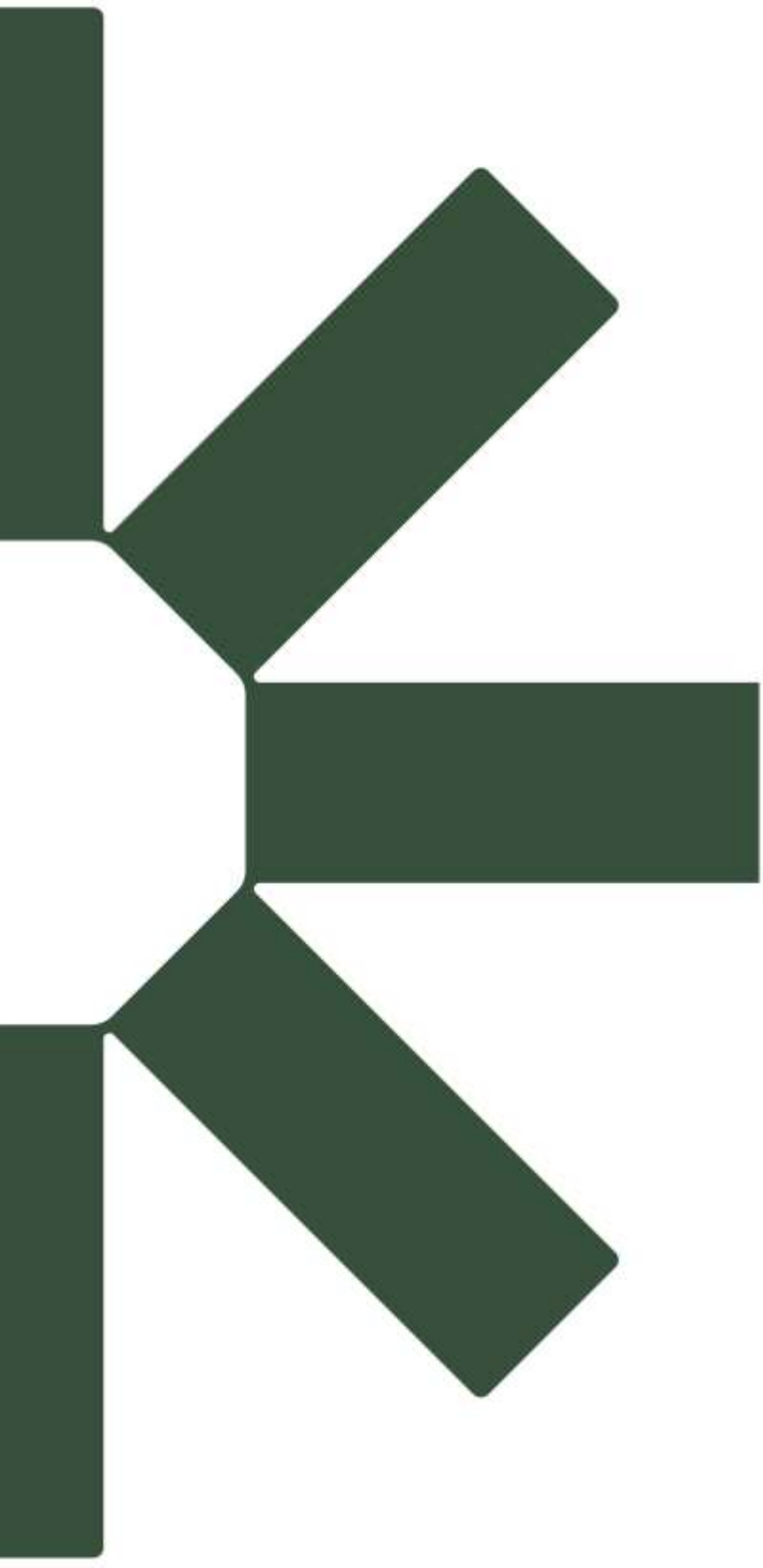


Figure S: Comparison of Modelled vs. Monitored Road NOx Contribution (1.474)



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