

Oxford United Stadium

Air Quality Assessment

February 2024

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Air Quality Assessment

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Appendix 12.1: Construction Dust Risk Assessment Tables

Table A.12.1: Determination of Dust Raising Magnitude

Source	High	Medium	Low
Demolition	Total building volume >75,000m ³ , potentially dusty construction material (e.g. concrete), on site crushing and screening, demolition activities >12m above ground	Total building volume 12,000 m ³ – 75,000 m ³ , potentially dusty construction material, demolition activities 6-12 m above ground level	Total building volume <12,000 m ³ , construction material with low potential for dust release (e.g. metal cladding or timber), demolition activities <6 m above ground, demolition during wetter months
Earthworks	Total site area >110,000 m ² , potentially dusty soil type (e.g. clay, which will be prone to suspension when dry due to small particle size), >10 heavy earth moving vehicles active at any one time, formation of bunds >6 m in height	Total site area 18,000 m ² – 110,000 m ² , moderately dusty soil type (e.g. silt), 5-10 heavy earth moving vehicles active at any one time, formation of bunds 3m - 6m in height	Total site area <18,000 m ² , soil type with large grain size (e.g. sand), <5 heavy earth moving vehicles active at any one time, formation of bunds <3 m in height
Construction	Total building volume >75,000 m ³ , on site concrete batching, sandblasting	Total building volume 12,000 m ³ – 75,000 m ³ , potentially dusty construction material (e.g. concrete), on site concrete batching	Total building volume <12,000 m ³ , construction material with low potential for dust release (e.g. metal cladding or timber)
Track out	>50 HDV (>3.5t) trips in any one day, potentially dusty surface material (e.g. high clay content), unpaved road length >100m	20-50 HDV (>3.5t) outward movements ⁹ in any one day, 10 moderately dusty surface material (e.g. high clay content), unpaved road length 50 m – 100 m	<20 HDV (>3.5t) outward movements in any one day, surface material with low potential for dust release, unpaved road length <50 m

Source: Terminology adapted from IAQM (2024)¹ however conclusions remain unchanged.

¹ Institute of Air Quality Management (2024) Guidance on the assessment of dust from demolition and construction

Table A.12.2: Receptor Sensitivity

Source	High	Medium	Low
Sensitivities of people to dust soiling effects	<ul style="list-style-type: none"> • Users can reasonably expect (See note A) an enjoyment of a high level of amenity; or • The appearance, aesthetics or value of their property would be diminished by soiling; and • The people or property would reasonably be expected to be present continuously, or at least regularly for extended periods, as part of the normal pattern of use of the land. • Indicative examples include dwellings, museums and other culturally important collections, medium and long term car parks (See note B) and car showrooms. 	<ul style="list-style-type: none"> • Users would expect (See note A) to enjoy a reasonable level of amenity, but would not reasonably expect (See note A) to enjoy the same level of amenity as in their home; or • The appearance, aesthetics or value of their property could be diminished by soiling; or • The people or property wouldn't reasonably be expected to be present here continuously or regularly for extended periods as part of the normal pattern of use of the land. • Indicative examples include parks and places of work. 	<ul style="list-style-type: none"> • The enjoyment of amenity would not reasonably be expected (See note A); or • Property would not reasonably be expected to be diminished in appearance, aesthetics or value by soiling; or • There is transient exposure, where the people or • Property would reasonably be expected to be present only for limited periods of time as part of the normal pattern of use of the land. • Indicative examples include playing fields, farmland (unless commercially-sensitive horticultural), footpaths, short term car parks (See note B) and roads.
Sensitivities of people to the health effects of PM ₁₀	<ul style="list-style-type: none"> • Locations where members of the public are exposed over a time period relevant to the air quality objective for PM₁₀ (in the case of the 24-hour objectives, a relevant location would be one where individuals may be exposed for eight hours or more in a day - See note C). • Indicative examples include residential properties. Hospitals, schools and residential care homes should also be considered as having equal sensitivity to residential areas for the purposes of this assessment. 	<ul style="list-style-type: none"> • Locations where the people exposed are workers (See note D), and exposure is over a time period relevant to the air quality objective for PM₁₀ (in the case of the 24-hour objectives, a relevant location would be one where individuals may be exposed for eight hours or more in a day). • Indicative examples include office and shop workers, but will generally not include workers occupationally exposed to PM₁₀, as protection is covered by Health and Safety at Work legislation. 	<ul style="list-style-type: none"> • Locations where human exposure is transient (See note E). • Indicative examples include public footpaths, playing fields, parks and shopping streets.
Sensitivities of receptors to ecological effects (See note F)	<ul style="list-style-type: none"> • Locations with an international or national designation and the designated features may be affected by dust soiling; or • Locations where there is a community of a particularly dust sensitive species such as vascular species included in the Red Data List For Great Britain (See note G). 	<ul style="list-style-type: none"> • Locations where there is a particularly important plant species, where its dust sensitivity is uncertain or unknown; or • Locations with a national designation where the features may be affected by dust deposition • Indicative example is a Site of Special Scientific Interest (SSSI) with dust sensitive features. 	<ul style="list-style-type: none"> • Locations with a local designation where the features may be affected by dust deposition. • Indicative example is a local Nature Reserve with dust sensitive features.

Source	High	Medium	Low
Sensitivities of receptors to ecological effects (See note F) (Continued)	<ul style="list-style-type: none"> Indicative examples include a Special Area of Conservation (SAC) designated for acid heathlands or a local site designated for lichens adjacent to the demolition of a large site containing concrete (alkali) buildings. 		

Source: IAQM (2024)

- A The public's expectations will vary depending on the existing dust deposition in the area.
- B Car parks can have a range of sensitivities depending on the duration and frequency that people would be expected to park their cars there, and the level of amenity they could reasonably expect whilst doing so. Car parks associated with work place or residential parking might have a high level of sensitivity compared to car parks used less frequently and for shorter durations, such as those associated with shopping. Cases should be examined on their own merits.
- C This follows DEFRA guidance as set out in LAQM.TG(22).
- D Notwithstanding the fact that the air quality objectives and limit values do not apply to people in the workplace, such people can be affected to exposure of PM₁₀. However, they are considered to be less sensitive than the general public as a whole because those most sensitive to the effects of air pollution, such as young children are not normally workers. For this reason workers have been included in the medium sensitivity category.
- E There are no standards that apply to short-term exposure, e.g. one or two hours, but there is still a risk of health effects, albeit less certain.
- F A Habitat Regulation Assessment of the Scheme may be required as part of the planning process, if the Scheme lies close to an internationally designated site i.e. SACs, Special Protection Areas (SPAs) designated under the Habitats Directive (92/43/EEC) and RAMSAR sites.
- G Cheffing C. M. & Farrell L. (Editors) (2005), The Vascular Plant. Red Data List for Great Britain, Joint Nature Conservation Committee.

Table A.12.3: Sensitivity of the Area to Dust Soiling Effects on People and Property (See note A and B)

Receptor Sensitivity	Number of Receptors	Distance from the source (m) (See note C)			
		<20	<50	<100	<250
High	>100	High	High	Medium	Low
	10-100	High	Medium	Low	Low
	1-10	Medium	Low	Low	Low
Medium	>1	Medium	Low	Low	Low
Low	>1	Low	Low	Low	Low

Source: IAQM (2024)

- A The sensitivity of the area should be derived for each of the four activities: demolition, construction, earthworks and trackout.
- B Estimate the total number of receptors within the stated distance. Only the highest level of area sensitivity from the table needs to be considered. For example, if there are 7 high sensitivity receptors <20m of the source and 95 high sensitivity receptors between 20 and 50m, then the total of number of receptors <50m is 102. The sensitivity of the area in this case would be high.
- C For trackout, the distances should be measured from the side of the roads used by construction traffic.

Table A.12.4: Sensitivity of the Area to Human Health Effects (See note A and B)

Receptor Sensitivity	Annual Mean PM ₁₀ Concentration	Number of Receptors	Distance from source (m) (See note E)			
			<20	<50	<100	<250
High	>32 µg/m ³	>100	High	High	High	Medium
		10-100	High	High	Medium	Low
		1-10	High	Medium	Low	Low
	28-32 µg/m ³	>100	High	High	Medium	Low
		10-100	High	Medium	Low	Low
		1-10	High	Medium	Low	Low
	24-28 µg/m ³	>100	High	Medium	Low	Low
		10-100	High	Medium	Low	Low
		1-10	Medium	Low	Low	Low
	<24µg/m ³	>100	Medium	Low	Low	Low
		10-100	Low	Low	Low	Low
		1-10	Low	Low	Low	Low
Medium	>32 µg/m ³	>10	High	Medium	Low	Low
		1-10	Medium	Low	Low	Low
	28-32 µg/m ³	>10	Medium	Low	Low	Low
		1-10	Low	Low	Low	Low
	24-28 µg/m ³	>10	Low	Low	Low	Low
		1-10	Low	Low	Low	Low

Receptor Sensitivity	Annual Mean PM ₁₀ Concentration	Number of Receptors	Distance from source (m) (See note E)			
			<20	<50	<100	<250
Medium (continued)	<24µg/m ³	>10	Low	Low	Low	Low
		1-10	Low	Low	Low	Low
Low	-	>1	Low	Low	Low	Low

Source: IAQM (2024)

- A The sensitivity of the area should be derived for each of the four activities: demolition, construction, earthworks and trackout.
- B Estimate the total within the stated distance (e.g. the total within 250m and not the number between 100 and 250m), noting that only the highest level of area sensitivity from the table needs to be considered. For example, if there are 7 high sensitivity receptors <20 m of the source and 95 high sensitivity receptors between 20 and 50m, then the total of number of receptors <50m is 102. If the annual mean PM₁₀ concentration is 29µg/m³, the sensitivity of the area would be high.
- C Most straightforwardly taken from the national background maps but should also take account of local sources. The values are based on 32µg/m³ being the annual mean concentration at which an exceedance of the 24-hour objective is likely in England, Wales and Northern Ireland. In Scotland there is an annual mean objective of 18µg/m³.
- D In the case of high sensitivity receptors with high occupancy (such as schools or hospitals) approximate the number of people likely to be present. In the case of residential dwellings, just include the number of properties.
- E For trackout, the distances should be measured from the side of the roads used by construction traffic.

Table A.12.5: Sensitivity of the Area to Ecological Effects (See note A and B)

Receptor Sensitivity	Distance from the source (m) (See note C)	
	<20	<50
High	High	Medium
Medium	Medium	Low
Low	Low	Low

Source: IAQM (2024)

- A The sensitivity of the area should be derived for each of the four activities: demolition, construction, earthworks and trackout.
- B Only the highest level of area sensitivity from the table needs to be considered.
- C For trackout, the distances should be measured from the side of the roads used by construction traffic up to 250m from the site entrance..

Table A.12.6: Risk of Dust Effects - Demolition

Sensitivity of Area	Dust Emissions Magnitude		
	High	Medium	Low
High	Major Risk	Moderate Risk	Moderate Risk
Medium	Major Risk	Moderate Risk	Minor Risk
Low	Moderate Risk	Minor Risk	Negligible

Source: Terminology adapted from IAQM (2024) however conclusions remain unchanged.

Table A.12.7: Risk of Dust Effects - Earthworks

Sensitivity of Area	Dust Emissions Magnitude		
	High	Medium	Low
High	Major Risk	Moderate Risk	Minor Risk
Medium	Moderate Risk	Moderate Risk	Minor Risk
Low	Minor Risk	Minor Risk	Negligible

Source: Terminology adapted from IAQM (2024)- however conclusions remain unchanged.

Table A.12.8: Risk of Dust Effects - Construction

Sensitivity of Area	Dust Emissions Magnitude		
	High	Medium	Low
High	Major Risk	Moderate Risk	Minor Risk
Medium	Moderate Risk	Moderate Risk	Minor Risk
Low	Minor Risk	Minor Risk	Negligible

Source: Terminology adapted from IAQM (2024) however conclusions remain unchanged.

Table A.12.9: Risk of Dust Effects – Trackout

Sensitivity of Area	Dust Emissions Magnitude		
	High	Medium	Low
High	Major Risk	Moderate Risk	Minor Risk
Medium	Moderate Risk	Moderate Risk	Minor Risk
Low	Minor Risk	Minor Risk	Negligible

Source: Terminology adapted from IAQM (2024) however conclusions remain unchanged.

Appendix 12.2: Model Verification

12.7.1 Overview

Model verification is a process by which checks are carried out to determine the performance of a dispersion model at a local level, primarily by comparison of modelled results with monitoring data. The verification process benefits an assessment by investigating uncertainties and minimising them either through informed refinement of model input parameters or adjustment of the model output if it is deemed necessary.

The Department for Environment Food and Rural Affairs (Defra) TG22 guidance provides a methodology for model verification, including calculation methods and directions on the suitability of monitoring data.

Verification of modelled 2018 annual mean NO₂ concentrations has been undertaken utilising monitoring results from relevant diffusion tube sites within the study area.

Background concentrations used in the model verification have been taken from Defra. The background maps for NO_x, NO₂, PM₁₀ and PM_{2.5} concentrations are split into source sectors. Selected 'in-grid' road sector's were removed from the background concentration estimates using Defra's sector removal tool to avoid double counting of road traffic emissions in the modelling process.

The adjusted background concentrations used for the verification are presented in Table A.12.10 below.

Table A.12.10: Adjusted Defra background pollutant map data for verification

Grid Square	2018 background concentration (µg/m ³)	
	NO _x	NO ₂
450_210	17.7	13.1
449_210	17.2	12.8

12.7.2 Air Quality Monitoring Data

Data from Oxford City Council (OCC) was reviewed to determine the suitability of each of the monitoring locations for inclusion in the model verification process. The criteria used to determine the suitability of the monitoring data for inclusion into the verification process were:

- The monitoring site was at a roadside or near a road location within the air quality study area.
- The exact location of the monitoring site could be accurately identified.
- Data capture was greater than 75% over the monitoring period.
- The monitoring site was not influenced by substantial road or other emission sources for which data was not available in the traffic reliability area, and therefore could not be included in the dispersion model.
- The monitoring site was not influenced by any factors considered to have the potential to have a substantial influence on the dispersion of emissions affecting that location, and which could not be accurately accounted for within the modelling process (e.g. elevated road sections or sections of road in cutting, or walls/barriers/dense vegetation between the monitoring site and the nearest road traffic emission source).
- The monitoring site was not affected by local emission sources (e.g. from a petrol station, bus station, car park or buses accelerating from a bus stop).

- The monitoring site was located in the vicinity of the study area.

For this reason, DT83 (not explicitly visible in StreetView and is likely behind dense vegetation) and TF26 (<75% data capture) have been excluded from the model verification:

In total, three OCC monitoring sites were used for verification. The exact location of each of the sites selected has been confirmed using street photography. Table A.12.11 presents the monitoring data used within the model verification.

Table A.12.11: Monitoring data used within model verification

Site ID	OS Grid Reference		2018 Annual Mean NO ₂ (µg/m ³)
	X	Y	
DT25	450419	210258	25.0
DT26	450389	210189	32.0
DT71	449612	210213	27.0

There were no PM₁₀ or PM_{2.5} analysers within the study area to enable model verification. Therefore, the NO_x adjustment factors have been applied to modelled road PM₁₀ and PM_{2.5} contributions, following guidance in Defra TG22.

12.7.3 Results

Table A.12.12 presents a comparison of the monitored and modelled concentrations of NO_x and NO₂ at the diffusion tube sites for the year 2018. There is a systematic underprediction of NO₂ concentrations at D26 and D71 (-10.2% and -8.9%, respectively), whereas site DT25 there is an overprediction of 4.2%.

Table A.12.12: Unadjusted model verification results

Site ID	Monitored road NO _x (µg/m ³)	Modelled road NO _x (µg/m ³)	Monitored total NO ₂ (µg/m ³)	Modelled total NO ₂ (µg/m ³)	Total NO ₂ difference (%)
DT25	23.0	25.1	25.0	26.1	4.2
DT26	37.6	30.7	32.0	28.7	-10.2
DT71	27.6	22.7	27.0	24.6	-8.9

Table A.12.12 and Figure A 12.1 present a comparison of the monitored and modelled concentrations of NO_x and NO₂ at the verification sites. Following Defra guidance, modelled and measured road traffic concentrations have been compared to derive a verification factor to apply to the modelled results. As diffusion tubes only measure total NO₂, the road traffic NO_x concentration measured by the diffusion tube was estimated following Defra TG22. Monitored road traffic NO_x was estimated using Version 8.1 of the NO_x to NO₂ calculator, based on the Defra predicted background NO₂.

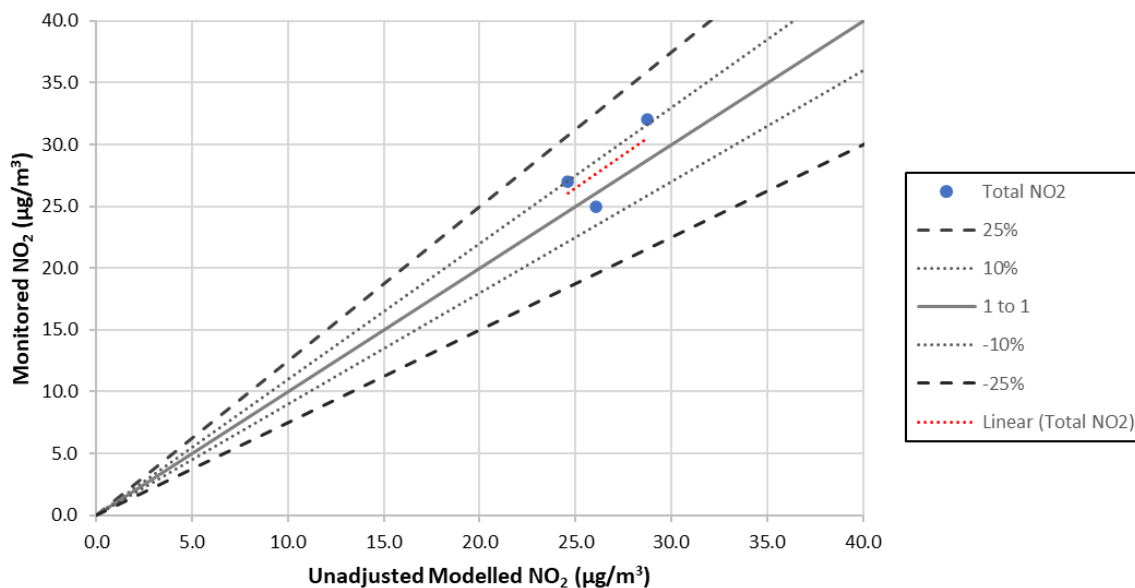


Figure A 12.1: Unadjusted model verification (annual mean NO₂; µg/m³)

Following Defra guidance, a model adjustment factor of 1.13 has been calculated when comparing modelled and monitored road traffic NO_x.

Table A.12.13 and Figure A 12.2 present the adjusted modelled NO₂ with monitored NO₂ at the verification sites. The model predicts NO₂ concentrations within 10% of the monitored concentrations at two sites and predicts NO₂ concentrations within 25% of the monitored concentrations at all sites. The model is therefore performing adequately at these locations following adjustment.

Table A.12.13: Adjusted model verification results

Site ID	Monitored total NO ₂ (µg/m ³)	Adjusted modelled total NO ₂ (µg/m ³)	Total NO ₂ difference (%)
DT25	25.0	27.6	10.5
DT26	32.0	30.6	-4.3
DT71	27.0	26.0	-3.6

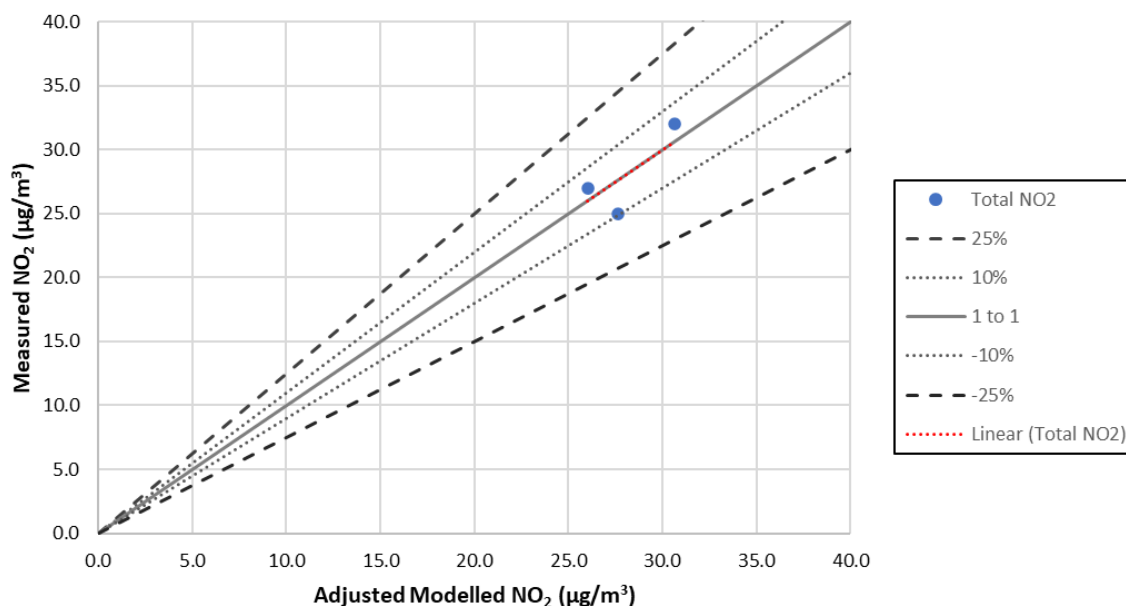


Figure A 12.2: Adjusted model verification (annual mean NO₂; µg/m³)

Table A.12.14 presents statistical parameters for describing model uncertainty. The Root Mean Square Error (RMSE) is used to define the average error or uncertainty of the model. The results of the RMSE calculation in this case are concentrations of NO₂ measured in units of micrograms per metre cubed. Table A.12.14 shows that before adjustment, the model uncertainty was ±2.42 µg/m³ or 6.0% of the annual mean NO₂ objective. After adjustment, the model uncertainty is reduced to ±1.80 µg/m³ or 4.5% of the annual mean NO₂ objective. Therefore, the model uncertainty is well within the desired 10% of the relevant objective, as recommended by Defra guidance.

Fractional Bias (FB) is used to identify if the model shows a tendency to over or under predict and values can vary between +2 and -2 and have an ideal value of 0. Negative values suggest a model over-prediction and positive values suggest a model under-prediction. Table A.12.14 shows that, before adjustment, the model is under-predicting annual mean NO₂ concentrations. Following adjustment, the model is at the desired FB value of 0.

The correlation coefficient (R) is used to measure the linear relationship between modelled and measured data. A value of zero means no relationship and a value of 1 means absolute relationship. Following model adjustment, the value of R marginally increases from 0.80 to 0.81.

Table A.12.14: Description of model uncertainty

Statistical parameter	Before adjustment	After adjustment	Ideal value
Root mean square error	2.42	1.80	0
Fractional bias	0.06	0	0
Correlation coefficient	0.80	0.81	1

The statistical analysis above demonstrates that the model performs adequately versus monitoring data, following adjustment. An adjustment factor of 1.13 has therefore been applied to modelled road NO_x, PM₁₀ and PM_{2.5} contributions at all receptors.

Appendix 12.3: Traffic Data – Construction

Table A.12.15: Summary of construction traffic data

Link ID	Name	2018 Base		2025 DM		2025 DS		Speed (km/h)
		AADT	HDV	AADT	HDV	AADT	HDV	
1_IB	Access Road	0	0	0	0	303	53	10
3_OB	Exit	0	0	0	0	303	53	10
4_NB	A4260 Oxford Road (N)	9889	430	10593	450	10683	450	47
4_SB	A4260 Oxford Road (N)	11892	379	13325	396	13413	396	51
5_NB	Bicester Road (N)	5468	216	8224	226	8261	226	60
5_SB	Bicester Road (N)	3492	173	5167	181	5204	181	58
6_NB	Frieze Way (N)	6321	119	7340	124	7645	177	88
6_SB	Frieze Way (N)	6111	97	10995	102	11296	154	80
7_NB	A4165 Oxford Road (S)	8830	522	13357	546	13357	546	52
7_SB	A4165 Oxford Road (S)	9072	446	10247	467	10247	467	54
8_NB	A4165 Banbury Road (N)	9320	718	10193	751	10193	751	29
8_SB	A4165 Banbury Road (N)	9601	626	11706	655	11706	655	33
9_EB	Elsfield Way	20490	1226	22536	1284	22561	1300	88
9_WB	Elsfield Way	16391	978	21517	1024	21543	1041	73
10_NB	A4165 Banbury Road (S)	8007	644	8618	674	8622	674	38
10_SB	A4165 Banbury Road (S)	7406	534	8079	559	8083	559	36
11_EB	A40 North Way	16627	1093	19574	1144	19596	1154	48
11_WB	A40 North Way	13296	863	15992	903	16014	913	48
12_NB	A44 Woodstock Road (C)	14621	1127	16790	1180	16835	1197	113

Link ID	Name	2018 Base		2025 DM		2025 DS		Speed (km/h)
		AADT	HDV	AADT	HDV	AADT	HDV	
12_SB	A44 Woodstock Road (C)	18987	1452	20183	1520	20228	1537	113
13_EB	A44 Woodstock Road (S)	6431	338	7438	354	7443	354	48
13_WB	A44 Woodstock Road (S)	6868	400	7551	419	7557	419	48
14_EB	A40 Northern Bypass Road	11769	1180	13133	1235	13150	1242	69
14_WB	A40 Northern Bypass Road	12930	1415	14786	1481	14802	1488	70
15_NB	A44 Woodstock Road (N)	13213	595	15684	623	15754	635	68
15_SB	A44 Woodstock Road (N)	13512	715	14439	749	14510	761	69
16_NB	A44 (C)	12172	760	13801	795	13879	808	113
16_SB	A44 (C)	14082	1063	17776	1113	17854	1125	113
17_NB	A34 (S)	26129	4503	27766	4713	27804	4726	113
17_SB	A34 (S)	25004	4361	29364	4565	29401	4577	113
18_NB	A34 (N)	26129	4503	29529	4713	29551	4724	113
18_SB	A34 (N)	25004	4361	28752	4565	28775	4575	113
19_NB	Godstow Road	1878	24	1965	26	1967	26	32
19_SB	Godstow Road	2111	27	2209	28	2218	28	32
Round_1 ^(a)	Loop Farm Roundabout	15898	786	19618	823	19843	862	20
Round_2 ^(a)	Peartree Roundabout	14352	1095	17283	1147	17345	1161	20
Round_3 ^(a)	Wolvercote Roundabout	26399	1960	29412	2052	29458	2069	20
Round_4 ^(a)	Cuttleslowe Roundabout	25313	1671	30708	1749	30734	1762	20
Round_5 ^(a)	Godstow Road Mini-roundabout	1995	26	2087	27	2093	27	20

Source: Ridge and Partners LLP

Note: (a) roundabout calculated based on the sum of all entry roads to the roundabout divided by two (assuming most road users use half the roundabout).

Appendix 12.4: Traffic Data – Operation

Table A.12.16: Summary of operational traffic data

Link ID	Name	2023 Base		2026 DM		2026 DS		Speed (km/h)
		AADT	HDV	AADT	HDV	AADT	HDV	
Site1_IB	Access Road	0	0	0	0	856	5	10
Site2_IB	Secondary Access Road	0	0	0	0	0	0	10
Site3_OB	Exit	0	0	0	0	856	5	10
1_NB	A4260 Oxford Road (N)	9,560	356	10,029	364	10,436	364	47
1_SB	A4260 Oxford Road (N)	11,046	395	12,011	404	12,418	404	51
2_NB	Bicester Road (N)	5,160	294	7,437	301	7,607	301	60
2_SB	Bicester Road (N)	3,483	254	5,140	260	5,310	260	58
3_NB	Frieze Way (N)	4,988	108	5,862	110	6,363	117	88
3_SB	Frieze Way (N)	4,527	101	8,670	103	10,451	118	80
4_NB	A4165 Oxford Road (S)	10,000	480	14,149	491	14,571	495	52
4_SB	A4165 Oxford Road (S)	10,222	477	11,101	487	11,523	492	54
5_NB	A4165 Banbury Road (N)	9,163	308	9,972	314	10,394	314	29
5_SB	A4165 Banbury Road (N)	9,491	324	11,312	331	11,734	331	33
6_EB	Elsfield Way	20,005	803	22,068	821	22,196	824	88
6_WB	Elsfield Way	18,028	745	21,833	761	21,961	764	73
7_NB	A4165 Banbury Road (S)	4,806	205	5,257	209	5,312	209	38
7_SB	A4165 Banbury Road (S)	4,162	167	4,578	171	4,632	171	36
8_EB	A40 North Way	13,301	833	16,777	851	16,829	855	48
8_WB	A40 North Way	13,315	536	15,312	548	15,436	551	48
9_NB	A44 Woodstock Road (C)	14,169	752	15,924	768	16,077	771	113
9_SB	A44 Woodstock Road (C)	15,858	855	16,614	873	16,747	877	113

Link ID	Name	2023 Base		2026 DM		2026 DS		Speed (km/h)
		AADT	HDV	AADT	HDV	AADT	HDV	
10_EB	A44 Woodstock Road (S)	7,861	312	8,793	318	8,829	318	48
10_WB	A44 Woodstock Road (S)	8,590	298	9,202	304	9,238	304	48
11_EB	A40 Northern Bypass Road	10,068	635	11,132	649	11,196	650	69
11_WB	A40 Northern Bypass Road	11,839	887	13,721	907	13,785	908	70
12_NB	A44 Woodstock Road (N)	11,203	252	13,668	258	13,917	261	68
12_SB	A44 Woodstock Road (N)	12,632	303	13,283	310	13,531	314	69
13_NB	A44 (C)	12,661	463	13,645	473	13,890	479	113
13_SB	A44 (C)	11,991	459	16,772	469	17,033	475	113
14_NB	A34 (S)	26,129	4,503	27,118	4,601	27,234	4,603	113
14_SB	A34 (S)	25,004	4,361	28,744	4,457	28,859	4,459	113
15_NB	A34 (N)	26,129	4,503	28,881	4,601	28,935	4,603	113
15_SB	A34 (N)	25,004	4,361	28,132	4,457	28,186	4,458	113
16_NB	Godstow Road	2,296	22	2,346	23	2,357	23	32
16_SB	Godstow Road	2,640	20	2,697	20	2,709	20	32
Round_1 ^(a)	Loop Farm Roundabout	14,910	434	17,799	443	18,936	456	20
Round_2 ^(a)	Peartree Roundabout	13,080	606	16,348	619	16,555	623	20
Round_3 ^(a)	Wolvercote Roundabout	25,064	1,173	27,303	1,199	27,487	1,203	20
Round_4 ^(a)	Cuttleslowe Roundabout	22,813	1,054	27,590	1,076	27,918	1,080	20
Round_5 ^(a)	Godstow Road Mini-roundabout	2,468	21	2,522	22	2,533	22	20
Round_6 ^{(a), (b)}	Kidlington Roundabout	14,759	619	18,581	633	19,331	638	20

Source: Ridge and Partners LLP

Note: (a) roundabout calculated based on the sum of all entry roads to the roundabout divided by two (assuming most road users use half the roundabout).

(b) additional roundabout modelled in the operational scenario due differences in the affected road network (ARN).

Appendix 12.5: Ecological Receptors – Nitrogen Deposition

Table A.12.17: Summary of ecological receptors with potential significant effects during construction (2025), with ammonia emissions from traffic considered

Designated site name	Receptor ID with greatest change in N deposition	Lower critical load (CL) (kg N/ha/yr)	Average background N deposition	DM 2025 total N deposition (kg N/ha/yr)	DS 2025 total N deposition (kg N/ha/yr)	Change in N deposition (DS-DM) (kg N/ha/yr)
Stratfield Brake LWS	1ECO10	5	25.9	29.1	29.2	0.1
Stratfield Brake LWS	1ECO20	5	25.9	28.1	28.2	0.1
Stratfield Brake LWS	1ECO30	5	25.9	27.7	27.8	0.1
Stratfield Brake LWS	1ECO40	5	25.9	27.4	27.5	0.1
Stratfield Brake LWS	1ECO50	5	25.9	27.2	27.3	0.1
Stratfield Brake LWS	1ECO60	5	25.9	27.1	27.1	< 0.1
Stratfield Brake LWS	1ECO70	5	25.9	27.0	27.0	< 0.1
Stratfield Brake LWS	1ECO80	5	25.9	26.9	26.9	< 0.1
Stratfield Brake LWS	1ECO90	5	25.9	26.83	26.87	< 0.1
Stratfield Brake LWS	1ECO100	5	25.9	26.8	26.8	< 0.1
Stratfield Brake LWS	1ECO110	5	25.9	26.7	26.8	< 0.1
Stratfield Brake LWS	1ECO120	5	25.9	26.7	26.7	< 0.1
Stratfield Brake LWS	1ECO130	5	25.9	26.6	26.7	< 0.1
Stratfield Brake LWS	1ECO140	5	25.9	26.6	26.6	< 0.1
Stratfield Brake LWS	1ECO150	5	25.9	26.6	26.6	< 0.1
Stratfield Brake LWS	1ECO160	5	25.9	26.6	26.6	< 0.1
Stratfield Brake LWS	1ECO170	5	25.9	26.5	26.6	< 0.1
Stratfield Brake LWS	1ECO180	5	25.9	26.5	26.5	< 0.1
Stratfield Brake LWS	1ECO190	5	25.9	26.5	26.5	< 0.1

Designated site name	Receptor ID with greatest change in N deposition	Lower critical load (CL) (kg N/ha/yr)	Average background N deposition	DM 2025 total N deposition (kg N/ha/yr)	DS 2025 total N deposition (kg N/ha/yr)	Change in N deposition (DS-DM) (kg N/ha/yr)
Stratfield Brake LWS	1ECO200	5	25.9	26.5	26.5	< 0.1
Stratfield Brake LWS	2ECO8	5	25.9	31.6	31.9	0.3
Stratfield Brake LWS	2ECO20	5	25.9	29.4	29.6	0.2
Stratfield Brake LWS	2ECO30	5	25.9	28.6	28.8	0.2
Stratfield Brake LWS	2ECO40	5	25.9	28.2	28.3	0.1
Stratfield Brake LWS	2ECO50	5	25.9	27.9	28.0	0.1
Stratfield Brake LWS	2ECO60	5	25.9	27.7	27.8	0.1
Stratfield Brake LWS	2ECO70	5	25.9	27.5	27.6	0.1
Stratfield Brake LWS	2ECO80	5	25.9	27.4	27.5	0.1
Stratfield Brake LWS	2ECO90	5	25.9	27.3	27.4	0.1
Stratfield Brake LWS	2ECO100	5	25.9	27.2	27.3	0.1
Stratfield Brake LWS	2ECO110	5	25.9	27.2	27.2	< 0.1
Stratfield Brake LWS	2ECO120	5	25.9	27.1	27.2	0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO5	5	15.0	30.4	30.4	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO20	5	15.0	22.4	22.4	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO30	5	15.0	20.6	20.6	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO40	5	15.0	19.6	19.6	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO50	5	15.0	18.8	18.8	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO60	5	15.0	18.3	18.3	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO70	5	15.0	17.9	17.9	< 0.1

Designated site name	Receptor ID with greatest change in N deposition	Lower critical load (CL) (kg N/ha/yr)	Average background N deposition	DM 2025 total N deposition (kg N/ha/yr)	DS 2025 total N deposition (kg N/ha/yr)	Change in N deposition (DS-DM) (kg N/ha/yr)
Canalside Meadow-Oxford Canal Marsh LWS	3ECO80	5	15.0	17.6	17.6	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO90	5	15.0	17.4	17.4	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO100	5	15.0	17.2	17.2	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO110	5	15.0	17.0	17.0	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO120	5	15.0	16.9	16.9	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO130	5	15.0	16.8	16.8	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO140	5	15.0	16.7	16.7	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO150	5	15.0	16.6	16.6	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO160	5	15.0	16.5	16.5	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO170	5	15.0	16.4	16.4	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO180	5	15.0	16.4	16.4	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO190	5	15.0	16.3	16.3	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO200	5	15.0	16.3	16.3	< 0.1
Duke's Meadow LWS	4ECO18	5	15.3	23.3	23.3	< 0.1
Duke's Meadow LWS	4ECO30	5	15.3	21.0	21.0	< 0.1
Duke's Meadow LWS	4ECO40	5	15.3	19.9	19.9	< 0.1
Duke's Meadow LWS	4ECO50	5	15.3	19.2	19.2	< 0.1

Designated site name	Receptor ID with greatest change in N deposition	Lower critical load (CL) (kg N/ha/yr)	Average background N deposition	DM 2025 total N deposition (kg N/ha/yr)	DS 2025 total N deposition (kg N/ha/yr)	Change in N deposition (DS-DM) (kg N/ha/yr)
Duke's Meadow LWS	4ECO60	5	15.3	18.7	18.7	< 0.1
Duke's Meadow LWS	4ECO70	5	15.3	18.3	18.3	< 0.1
Duke's Meadow LWS	4ECO80	5	15.3	18.0	18.0	< 0.1
Duke's Meadow LWS	4ECO90	5	15.3	17.7	17.8	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO4	10	15.3	31.5	31.5	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO20	10	15.3	23.0	23.0	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO30	10	15.3	21.2	21.2	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO40	10	15.3	20.1	20.1	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO50	10	15.3	19.3	19.3	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO60	10	15.3	18.8	18.8	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO70	10	15.3	18.4	18.4	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO80	10	15.3	18.1	18.1	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO90	10	15.3	17.8	17.8	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO100	10	15.3	17.6	17.6	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO110	10	15.3	17.4	17.4	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO3	10	15.1	29.5	29.6	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO20	10	15.1	21.3	21.3	< 0.1

Designated site name	Receptor ID with greatest change in N deposition	Lower critical load (CL) (kg N/ha/yr)	Average background N deposition	DM 2025 total N deposition (kg N/ha/yr)	DS 2025 total N deposition (kg N/ha/yr)	Change in N deposition (DS-DM) (kg N/ha/yr)
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO30	10	15.1	19.7	19.7	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO40	10	15.1	18.8	18.8	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO50	10	15.1	18.2	18.2	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO60	10	15.1	17.7	17.8	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO70	10	15.1	17.4	17.4	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO80	10	15.1	17.1	17.2	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO90	10	15.1	16.9	16.9	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO100	10	15.1	16.8	16.8	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO110	10	15.1	16.6	16.6	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO120	10	15.1	16.5	16.5	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO130	10	15.1	16.4	16.4	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO140	10	15.1	16.3	16.3	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO150	10	15.1	16.2	16.2	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO160	10	15.1	16.2	16.2	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO170	10	15.1	16.1	16.1	< 0.1

Designated site name	Receptor ID with greatest change in N deposition	Lower critical load (CL) (kg N/ha/yr)	Average background N deposition	DM 2025 total N deposition (kg N/ha/yr)	DS 2025 total N deposition (kg N/ha/yr)	Change in N deposition (DS-DM) (kg N/ha/yr)
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO180	10	15.1	16.0	16.0	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO190	10	15.1	16.0	16.0	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO200	10	15.1	15.9	15.9	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO14	10	14.9	24.4	24.5	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO30	10	14.9	20.9	20.9	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO40	10	14.9	19.8	19.8	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO50	10	14.9	19.0	19.0	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO60	10	14.9	18.5	18.5	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO70	10	14.9	18.1	18.1	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO80	10	14.9	17.8	17.8	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO90	10	14.9	17.5	17.5	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO100	10	14.9	17.3	17.3	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO110	10	14.9	17.1	17.1	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO120	10	14.9	17.0	17.0	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO130	10	14.9	16.9	16.9	< 0.1

Designated site name	Receptor ID with greatest change in N deposition	Lower critical load (CL) (kg N/ha/yr)	Average background N deposition	DM 2025 total N deposition (kg N/ha/yr)	DS 2025 total N deposition (kg N/ha/yr)	Change in N deposition (DS-DM) (kg N/ha/yr)
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO140	10	14.9	16.7	16.7	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO150	10	14.9	16.6	16.6	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO160	10	14.9	16.5	16.5	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO170	10	14.9	16.5	16.5	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO180	10	14.9	16.4	16.4	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO190	10	14.9	16.3	16.3	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO200	10	14.9	16.3	16.3	< 0.1
Godstow Road AW	8ECO98	5	26.3	30.2	30.2	< 0.1
Godstow Road AW	8ECO110	5	26.3	29.8	29.8	< 0.1
Godstow Road AW	8ECO120	5	26.3	29.6	29.6	< 0.1
Godstow Road AW	8ECO130	5	26.3	29.4	29.4	< 0.1
Godstow Road AW	8ECO140	5	26.3	29.2	29.2	< 0.1
Godstow Road AW	8ECO150	5	26.3	29.0	29.0	< 0.1
Godstow Road AW	8ECO160	5	26.3	28.9	28.9	< 0.1
Godstow Road AW	8ECO170	5	26.3	28.8	28.8	< 0.1
Godstow Holt AW	9ECO58	5	26.2	32.0	32.0	< 0.1
Godstow Holt AW	9ECO70	5	26.2	31.3	31.3	< 0.1
Botley Hill AW	10ECO197	5	26.2	27.4	27.4	< 0.1
Botley Hill AW	10ECO200	5	26.2	27.3	27.3	< 0.1
Church Grove AW	11ECO106	5	26.2	29.8	29.8	< 0.1
Church Grove AW	11ECO120	5	26.2	29.4	29.4	< 0.1

Designated site name	Receptor ID with greatest change in N deposition	Lower critical load (CL) (kg N/ha/yr)	Average background N deposition	DM 2025 total N deposition (kg N/ha/yr)	DS 2025 total N deposition (kg N/ha/yr)	Change in N deposition (DS-DM) (kg N/ha/yr)
Church Grove AW	11ECO130	5	26.2	29.2	29.2	< 0.1
Binsey Lane AW	12ECO79	5	26.2	30.8	30.8	< 0.1
Binsey Lane AW	12ECO90	5	26.2	30.3	30.3	< 0.1
Binsey Lane AW	12ECO100	5	26.2	29.9	30.0	< 0.1
Binsey Lane AW	12ECO110	5	26.2	29.7	29.7	< 0.1
Binsey Lane AW	12ECO120	5	26.2	29.4	29.4	< 0.1
Wytham Woods SSSI	13ECO44	15	26.2	30.1	30.2	< 0.1
Wytham Woods SSSI	13ECO60	15	26.2	29.3	29.3	< 0.1
Wytham Woods SSSI	13ECO70	15	26.2	28.9	28.9	< 0.1
Wytham Woods SSSI	13ECO80	15	26.2	28.6	28.6	< 0.1
Wytham Woods SSSI	13ECO90	15	26.2	28.4	28.4	< 0.1
Wytham Woods SSSI	13ECO100	15	26.2	28.2	28.2	< 0.1
Wytham Woods SSSI	13ECO110	15	26.2	28.0	28.0	< 0.1
Wytham Woods SSSI	13ECO120	15	26.2	27.9	27.9	< 0.1
Wytham Woods SSSI	13ECO130	15	26.2	27.8	27.8	< 0.1
Wytham Woods SSSI	13ECO140	15	26.2	27.7	27.7	< 0.1
Wytham Woods SSSI	13ECO150	15	26.2	27.6	27.6	< 0.1
Wytham Woods SSSI	13ECO160	15	26.2	27.5	27.5	< 0.1
Wytham Woods SSSI	13ECO170	15	26.2	27.4	27.4	< 0.1
Wytham Woods SSSI	13ECO180	15	26.2	27.4	27.4	< 0.1
Wytham Woods SSSI	13ECO190	15	26.2	27.3	27.3	< 0.1
Wytham Woods SSSI	13ECO200	15	26.2	27.3	27.3	< 0.1
Linkside Lake LWS	14ECO179	5	26.2	28.7	28.7	< 0.1
Linkside Lake LWS	14ECO200	5	26.2	28.6	28.6	< 0.1

Table A.12.18: All ecological receptors with potential significant effects during operation (2026), with ammonia emissions

Designated site name	Receptor ID with greatest change in N deposition	Lower critical load (CL) (kg N/ha/yr)	Average background N deposition	DM 2026 total N deposition (kg N/ha/yr)	DS 2026 total N deposition (kg N/ha/yr)	Change in N deposition (DS-DM) (kg N/ha/yr)
Stratfield Brake LWS	1ECO10	5	25.9	29.4	29.7	0.3
Stratfield Brake LWS	1ECO20	5	25.9	28.6	28.9	0.2
Stratfield Brake LWS	1ECO30	5	25.9	28.2	28.4	0.2
Stratfield Brake LWS	1ECO40	5	25.9	28.0	28.1	0.2
Stratfield Brake LWS	1ECO50	5	25.9	27.8	28.0	0.1
Stratfield Brake LWS	1ECO60	5	25.9	27.7	27.8	0.1
Stratfield Brake LWS	1ECO70	5	25.9	27.6	27.7	0.1
Stratfield Brake LWS	1ECO80	5	25.9	27.5	27.6	0.1
Stratfield Brake LWS	1ECO90	5	25.9	27.4	27.5	0.1
Stratfield Brake LWS	1ECO100	5	25.9	27.4	27.4	< 0.1
Stratfield Brake LWS	1ECO110	5	25.9	27.3	27.4	0.1
Stratfield Brake LWS	1ECO120	5	25.9	27.3	27.3	< 0.1
Stratfield Brake LWS	1ECO130	5	25.9	27.2	27.3	0.1
Stratfield Brake LWS	1ECO140	5	25.9	27.2	27.2	< 0.1
Stratfield Brake LWS	1ECO150	5	25.9	27.1	27.2	0.1
Stratfield Brake LWS	1ECO160	5	25.9	27.1	27.1	< 0.1
Stratfield Brake LWS	1ECO170	5	25.9	27.1	27.1	< 0.1
Stratfield Brake LWS	1ECO180	5	25.9	27.0	27.1	< 0.1
Stratfield Brake LWS	1ECO190	5	25.9	27.0	27.0	< 0.1
Stratfield Brake LWS	1ECO200	5	25.9	27.0	27.0	< 0.1
Stratfield Brake LWS	2ECO8	5	25.9	31.5	32.3	0.8
Stratfield Brake LWS	2ECO20	5	25.9	29.8	30.3	0.4
Stratfield Brake LWS	2ECO30	5	25.9	29.3	29.6	0.3
Stratfield Brake LWS	2ECO40	5	25.9	29.0	29.3	0.3
Stratfield Brake LWS	2ECO50	5	25.9	28.8	29.0	0.2

Designated site name	Receptor ID with greatest change in N deposition	Lower critical load (CL) (kg N/ha/yr)	Average background N deposition	DM 2026 total N deposition (kg N/ha/yr)	DS 2026 total N deposition (kg N/ha/yr)	Change in N deposition (DS-DM) (kg N/ha/yr)
Stratfield Brake LWS	2ECO60	5	25.9	28.7	28.9	0.2
Stratfield Brake LWS	2ECO70	5	25.9	28.6	28.8	0.2
Stratfield Brake LWS	2ECO80	5	25.9	28.6	28.8	0.2
Stratfield Brake LWS	2ECO90	5	25.9	28.6	28.8	0.2
Stratfield Brake LWS	2ECO100	5	25.9	28.7	28.8	0.1
Stratfield Brake LWS	2ECO110	5	25.9	28.7	28.8	0.1
Stratfield Brake LWS	2ECO120	5	25.9	28.8	28.9	0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO5	5	15.0	31.5	31.6	0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO20	5	15.0	23.2	23.2	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO30	5	15.0	21.3	21.3	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO40	5	15.0	20.1	20.2	0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO50	5	15.0	19.4	19.4	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO60	5	15.0	18.8	18.8	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO70	5	15.0	18.4	18.4	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO80	5	15.0	18.1	18.1	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO90	5	15.0	17.8	17.8	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO100	5	15.0	17.6	17.6	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO110	5	15.0	17.4	17.4	< 0.1

Designated site name	Receptor ID with greatest change in N deposition	Lower critical load (CL) (kg N/ha/yr)	Average background N deposition	DM 2026 total N deposition (kg N/ha/yr)	DS 2026 total N deposition (kg N/ha/yr)	Change in N deposition (DS-DM) (kg N/ha/yr)
Canalside Meadow-Oxford Canal Marsh LWS	3ECO120	5	15.0	17.2	17.3	0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO130	5	15.0	17.1	17.1	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO140	5	15.0	17.0	17.0	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO150	5	15.0	16.9	16.9	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO160	5	15.0	16.8	16.8	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO170	5	15.0	16.7	16.7	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO180	5	15.0	16.6	16.7	0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO190	5	15.0	16.6	16.6	< 0.1
Canalside Meadow-Oxford Canal Marsh LWS	3ECO200	5	15.0	16.5	16.5	< 0.1
Duke's Meadow LWS	4ECO18	5	15.3	23.8	23.8	< 0.1
Duke's Meadow LWS	4ECO30	5	15.3	21.5	21.5	< 0.1
Duke's Meadow LWS	4ECO40	5	15.3	20.3	20.3	< 0.1
Duke's Meadow LWS	4ECO50	5	15.3	19.6	19.6	< 0.1
Duke's Meadow LWS	4ECO60	5	15.3	19.0	19.0	< 0.1
Duke's Meadow LWS	4ECO70	5	15.3	18.6	18.6	< 0.1
Duke's Meadow LWS	4ECO80	5	15.3	18.3	18.3	< 0.1
Duke's Meadow LWS	4ECO90	5	15.3	18.0	18.0	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO4	10	15.3	32.3	32.4	0.1

Designated site name	Receptor ID with greatest change in N deposition	Lower critical load (CL) (kg N/ha/yr)	Average background N deposition	DM 2026 total N deposition (kg N/ha/yr)	DS 2026 total N deposition (kg N/ha/yr)	Change in N deposition (DS-DM) (kg N/ha/yr)
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO20	10	15.3	23.4	23.4	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO30	10	15.3	21.5	21.5	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO40	10	15.3	20.3	20.4	0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO50	10	15.3	19.6	19.6	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO60	10	15.3	19.0	19.0	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO70	10	15.3	18.6	18.6	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO80	10	15.3	18.3	18.3	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO90	10	15.3	18.0	18.0	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO100	10	15.3	17.8	17.8	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO110	10	15.3	17.6	17.6	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO3	10	15.1	30.3	30.3	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO20	10	15.1	21.6	21.7	0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO30	10	15.1	20.0	20.0	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO40	10	15.1	19.0	19.1	0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO50	10	15.1	18.4	18.4	< 0.1

Designated site name	Receptor ID with greatest change in N deposition	Lower critical load (CL) (kg N/ha/yr)	Average background N deposition	DM 2026 total N deposition (kg N/ha/yr)	DS 2026 total N deposition (kg N/ha/yr)	Change in N deposition (DS-DM) (kg N/ha/yr)
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO60	10	15.1	17.9	17.9	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO70	10	15.1	17.6	17.6	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO80	10	15.1	17.3	17.3	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO90	10	15.1	17.1	17.1	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO100	10	15.1	16.9	16.9	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO110	10	15.1	16.7	16.8	0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO120	10	15.1	16.6	16.6	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO130	10	15.1	16.5	16.5	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO140	10	15.1	16.4	16.4	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO150	10	15.1	16.3	16.3	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO160	10	15.1	16.3	16.3	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO170	10	15.1	16.2	16.2	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO180	10	15.1	16.1	16.1	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO190	10	15.1	16.1	16.1	< 0.1
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO200	10	15.1	16.0	16.0	< 0.1

Designated site name	Receptor ID with greatest change in N deposition	Lower critical load (CL) (kg N/ha/yr)	Average background N deposition	DM 2026 total N deposition (kg N/ha/yr)	DS 2026 total N deposition (kg N/ha/yr)	Change in N deposition (DS-DM) (kg N/ha/yr)
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO14	10	14.9	24.9	25.0	0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO30	10	14.9	21.2	21.2	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO40	10	14.9	20.0	20.1	0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO50	10	14.9	19.3	19.3	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO60	10	14.9	18.7	18.7	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO70	10	14.9	18.3	18.3	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO80	10	14.9	17.9	18.0	0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO90	10	14.9	17.7	17.7	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO100	10	14.9	17.4	17.5	0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO110	10	14.9	17.3	17.3	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO120	10	14.9	17.1	17.1	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO130	10	14.9	17.0	17.0	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO140	10	14.9	16.8	16.9	0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO150	10	14.9	16.7	16.8	0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO160	10	14.9	16.7	16.7	< 0.1

Designated site name	Receptor ID with greatest change in N deposition	Lower critical load (CL) (kg N/ha/yr)	Average background N deposition	DM 2026 total N deposition (kg N/ha/yr)	DS 2026 total N deposition (kg N/ha/yr)	Change in N deposition (DS-DM) (kg N/ha/yr)
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO170	10	14.9	16.6	16.6	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO180	10	14.9	16.5	16.5	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO190	10	14.9	16.4	16.4	< 0.1
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO200	10	14.9	16.4	16.4	< 0.1
Godstow Road AW	8ECO98	5	26.3	30.4	30.4	< 0.1
Godstow Road AW	8ECO110	5	26.3	30.0	30.0	< 0.1
Godstow Road AW	8ECO120	5	26.3	29.8	29.8	< 0.1
Godstow Road AW	8ECO130	5	26.3	29.5	29.6	0.1
Godstow Road AW	8ECO140	5	26.3	29.4	29.4	< 0.1
Godstow Road AW	8ECO150	5	26.3	29.2	29.2	< 0.1
Godstow Road AW	8ECO160	5	26.3	29.0	29.1	0.1
Godstow Road AW	8ECO170	5	26.3	28.9	28.9	< 0.1
Godstow Holt AW	9ECO58	5	26.2	32.3	32.3	< 0.1
Godstow Holt AW	9ECO70	5	26.2	31.5	31.5	< 0.1
Botley Hill AW	10ECO197	5	26.2	27.4	27.4	< 0.1
Botley Hill AW	10ECO200	5	26.2	27.4	27.4	< 0.1
Church Grove AW	11ECO106	5	26.2	29.9	30.0	0.1
Church Grove AW	11ECO120	5	26.2	29.6	29.6	< 0.1
Church Grove AW	11ECO130	5	26.2	29.4	29.4	< 0.1
Binsey Lane AW	12ECO79	5	26.2	31.0	31.0	< 0.1
Binsey Lane AW	12ECO90	5	26.2	30.5	30.5	< 0.1
Binsey Lane AW	12ECO100	5	26.2	30.1	30.1	< 0.1
Binsey Lane AW	12ECO110	5	26.2	29.8	29.8	< 0.1

Designated site name	Receptor ID with greatest change in N deposition	Lower critical load (CL) (kg N/ha/yr)	Average background N deposition	DM 2026 total N deposition (kg N/ha/yr)	DS 2026 total N deposition (kg N/ha/yr)	Change in N deposition (DS-DM) (kg N/ha/yr)
Binsey Lane AW	12ECO120	5	26.2	29.6	29.6	< 0.1
Wytham Woods SSSI	13ECO44	15	26.2	30.3	30.4	0.1
Wytham Woods SSSI	13ECO60	15	26.2	29.5	29.5	< 0.1
Wytham Woods SSSI	13ECO70	15	26.2	29.1	29.1	< 0.1
Wytham Woods SSSI	13ECO80	15	26.2	28.8	28.8	< 0.1
Wytham Woods SSSI	13ECO90	15	26.2	28.5	28.5	< 0.1
Wytham Woods SSSI	13ECO100	15	26.2	28.3	28.3	< 0.1
Wytham Woods SSSI	13ECO110	15	26.2	28.1	28.1	< 0.1
Wytham Woods SSSI	13ECO120	15	26.2	28.0	28.0	< 0.1
Wytham Woods SSSI	13ECO130	15	26.2	27.9	27.9	< 0.1
Wytham Woods SSSI	13ECO140	15	26.2	27.8	27.8	< 0.1
Wytham Woods SSSI	13ECO150	15	26.2	27.7	27.7	< 0.1
Wytham Woods SSSI	13ECO160	15	26.2	27.6	27.6	< 0.1
Wytham Woods SSSI	13ECO170	15	26.2	27.5	27.5	< 0.1
Wytham Woods SSSI	13ECO180	15	26.2	27.4	27.4	< 0.1
Wytham Woods SSSI	13ECO190	15	26.2	27.4	27.4	< 0.1
Wytham Woods SSSI	13ECO200	15	26.2	27.3	27.3	< 0.1
Linkside Lake LWS	14ECO179	5	26.2	28.8	28.9	0.1
Linkside Lake LWS	14ECO200	5	26.2	28.7	28.7	< 0.1

Appendix 12.6: Ecological Receptors – NOx Critical Level

Table A.12.19: Summary of NO_x critical levels for ecological receptors during construction

Designated site name	Receptor ID	NO _x concentrations (µg/m ³)		Actual Change (µg/m ³)	Comparison against air quality standard	Potentially Significant
		2025 DM	2025 DS			
Stratfield Brake LWS	1ECO10	19.0	19.1	0.1	Within standard	No
Stratfield Brake LWS	1ECO20	17.9	18.0	0.1	Within standard	No
Stratfield Brake LWS	1ECO30	17.3	17.4	0.1	Within standard	No
Stratfield Brake LWS	1ECO40	17.0	17.1	0.1	Within standard	No
Stratfield Brake LWS	1ECO50	16.8	16.8	< 0.1	Within standard	No
Stratfield Brake LWS	1ECO60	16.6	16.7	0.1	Within standard	No
Stratfield Brake LWS	1ECO70	16.5	16.5	< 0.1	Within standard	No
Stratfield Brake LWS	1ECO80	16.4	16.4	< 0.1	Within standard	No
Stratfield Brake LWS	1ECO90	16.3	16.4	0.1	Within standard	No
Stratfield Brake LWS	1ECO100	16.3	16.3	< 0.1	Within standard	No
Stratfield Brake LWS	1ECO110	16.2	16.2	< 0.1	Within standard	No
Stratfield Brake LWS	1ECO120	16.2	16.2	< 0.1	Within standard	No
Stratfield Brake LWS	1ECO130	16.1	16.1	< 0.1	Within standard	No
Stratfield Brake LWS	1ECO140	16.1	16.1	< 0.1	Within standard	No
Stratfield Brake LWS	1ECO150	16.0	16.1	0.1	Within standard	No
Stratfield Brake LWS	1ECO160	16.0	16.0	< 0.1	Within standard	No
Stratfield Brake LWS	1ECO170	16.0	16.0	< 0.1	Within standard	No
Stratfield Brake LWS	1ECO180	16.0	16.0	< 0.1	Within standard	No
Stratfield Brake LWS	1ECO190	15.9	16.0	0.1	Within standard	No

Designated site name	Receptor ID	NOx concentrations ($\mu\text{g}/\text{m}^3$)		Actual Change ($\mu\text{g}/\text{m}^3$)	Comparison against air quality standard	Potentially Significant
		2025 DM	2025 DS			
Stratfield Brake LWS	1ECO200	15.9	15.9	< 0.1	Within standard	No
Stratfield Brake LWS	2ECO8	22.0	22.3	0.3	Within standard	No
Stratfield Brake LWS	2ECO20	19.4	19.6	0.2	Within standard	No
Stratfield Brake LWS	2ECO30	18.5	18.6	0.1	Within standard	No
Stratfield Brake LWS	2ECO40	17.9	18.1	0.2	Within standard	No
Stratfield Brake LWS	2ECO50	17.6	17.7	0.1	Within standard	No
Stratfield Brake LWS	2ECO60	17.3	17.4	0.1	Within standard	No
Stratfield Brake LWS	2ECO70	17.2	17.2	< 0.1	Within standard	No
Stratfield Brake LWS	2ECO80	17.0	17.1	0.1	Within standard	No
Stratfield Brake LWS	2ECO90	16.9	17.0	0.1	Within standard	No
Stratfield Brake LWS	2ECO100	16.8	16.9	0.1	Within standard	No
Stratfield Brake LWS	2ECO110	16.7	16.8	0.1	Within standard	No
Stratfield Brake LWS	2ECO120	16.7	16.7	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO5	41.9	41.9	< 0.1	Above standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO20	26.8	26.8	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO30	23.4	23.4	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO40	21.4	21.4	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO50	20.0	20.0	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO60	19.0	19.0	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO70	18.3	18.3	< 0.1	Within standard	No

Designated site name	Receptor ID	NOx concentrations ($\mu\text{g}/\text{m}^3$)		Actual Change ($\mu\text{g}/\text{m}^3$)	Comparison against air quality standard	Potentially Significant
		2025 DM	2025 DS			
Canalside Meadow-Oxford Canal Marsh LWS	3ECO80	17.7	17.7	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO90	17.3	17.3	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO100	16.9	16.9	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO110	16.6	16.6	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO120	16.3	16.3	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO130	16.1	16.1	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO140	15.9	15.9	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO150	15.7	15.7	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO160	15.6	15.6	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO170	15.5	15.5	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO180	15.3	15.3	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO190	15.2	15.2	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO200	15.1	15.2	0.1	Within standard	No
Duke's Meadow LWS	4ECO18	30.1	30.1	< 0.1	Above standard	No
Duke's Meadow LWS	4ECO30	25.8	25.8	< 0.1	Within standard	No
Duke's Meadow LWS	4ECO40	23.8	23.8	< 0.1	Within standard	No

Designated site name	Receptor ID	NOx concentrations ($\mu\text{g}/\text{m}^3$)		Actual Change ($\mu\text{g}/\text{m}^3$)	Comparison against air quality standard	Potentially Significant
		2025 DM	2025 DS			
Duke's Meadow LWS	4ECO50	22.4	22.4	< 0.1	Within standard	No
Duke's Meadow LWS	4ECO60	21.4	21.4	< 0.1	Within standard	No
Duke's Meadow LWS	4ECO70	20.7	20.7	< 0.1	Within standard	No
Duke's Meadow LWS	4ECO80	20.1	20.1	< 0.1	Within standard	No
Duke's Meadow LWS	4ECO90	19.6	19.7	0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO4	44.1	44.2	0.1	Above standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO20	28.0	28.0	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO30	24.5	24.5	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO40	22.4	22.4	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO50	21.0	21.0	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO60	20.0	20.0	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO70	19.2	19.3	0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO80	18.7	18.7	< 0.1	Within standard	No

Designated site name	Receptor ID	NOx concentrations ($\mu\text{g}/\text{m}^3$)		Actual Change ($\mu\text{g}/\text{m}^3$)	Comparison against air quality standard	Potentially Significant
		2025 DM	2025 DS			
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO90	18.2	18.2	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO100	17.8	17.8	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO110	17.5	17.5	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO3	40.9	41.0	0.1	Above standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO20	26.8	26.8	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO30	23.9	23.9	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO40	22.1	22.2	0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO50	21.0	21.0	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO60	20.1	20.1	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO70	19.5	19.5	< 0.1	Within standard	No

Designated site name	Receptor ID	NOx concentrations ($\mu\text{g}/\text{m}^3$)		Actual Change ($\mu\text{g}/\text{m}^3$)	Comparison against air quality standard	Potentially Significant
		2025 DM	2025 DS			
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO80	19.0	19.0	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO90	18.6	18.6	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO100	18.3	18.3	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO110	18.0	18.0	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO120	17.8	17.8	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO130	17.6	17.6	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO140	17.4	17.4	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO150	17.3	17.3	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO160	17.1	17.1	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO170	17.0	17.0	< 0.1	Within standard	No

Designated site name	Receptor ID	NOx concentrations ($\mu\text{g}/\text{m}^3$)		Actual Change ($\mu\text{g}/\text{m}^3$)	Comparison against air quality standard	Potentially Significant
		2025 DM	2025 DS			
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO180	16.9	16.9	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO190	16.8	16.8	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO200	16.7	16.7	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO14	31.4	31.5	0.1	Above standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO30	24.7	24.7	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO40	22.6	22.6	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO50	21.2	21.2	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO60	20.2	20.2	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO70	19.4	19.4	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO80	18.8	18.8	< 0.1	Within standard	No

Designated site name	Receptor ID	NOx concentrations ($\mu\text{g}/\text{m}^3$)		Actual Change ($\mu\text{g}/\text{m}^3$)	Comparison against air quality standard	Potentially Significant
		2025 DM	2025 DS			
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO90	18.4	18.4	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO100	18.0	18.0	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO110	17.6	17.6	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO120	17.3	17.3	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO130	17.1	17.1	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO140	16.9	16.9	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO150	16.7	16.7	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO160	16.5	16.5	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO170	16.4	16.4	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO180	16.2	16.2	< 0.1	Within standard	No

Designated site name	Receptor ID	NOx concentrations ($\mu\text{g}/\text{m}^3$)		Actual Change ($\mu\text{g}/\text{m}^3$)	Comparison against air quality standard	Potentially Significant
		2025 DM	2025 DS			
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO190	16.1	16.1	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO200	16.0	16.0	< 0.1	Within standard	No
Godstow Road AW	8ECO98	18.0	18.1	0.1	Within standard	No
Godstow Road AW	8ECO110	17.6	17.7	0.1	Within standard	No
Godstow Road AW	8ECO120	17.4	17.4	< 0.1	Within standard	No
Godstow Road AW	8ECO130	17.1	17.1	< 0.1	Within standard	No
Godstow Road AW	8ECO140	16.9	16.9	< 0.1	Within standard	No
Godstow Road AW	8ECO150	16.7	16.7	< 0.1	Within standard	No
Godstow Road AW	8ECO160	16.5	16.5	< 0.1	Within standard	No
Godstow Road AW	8ECO170	16.4	16.4	< 0.1	Within standard	No
Godstow Holt AW	9ECO58	20.5	20.5	< 0.1	Within standard	No
Godstow Holt AW	9ECO70	19.6	19.6	< 0.1	Within standard	No
Botley Hill AW	10ECO197	12.9	12.9	< 0.1	Within standard	No
Botley Hill AW	10ECO200	12.8	12.8	< 0.1	Within standard	No
Church Grove AW	11ECO106	15.6	15.6	< 0.1	Within standard	No
Church Grove AW	11ECO120	15.2	15.2	< 0.1	Within standard	No
Church Grove AW	11ECO130	15.0	15.0	< 0.1	Within standard	No
Binsey Lane AW	12ECO79	17.0	17.0	< 0.1	Within standard	No
Binsey Lane AW	12ECO90	16.4	16.4	< 0.1	Within standard	No
Binsey Lane AW	12ECO100	16.0	16.0	< 0.1	Within standard	No
Binsey Lane AW	12ECO110	15.6	15.6	< 0.1	Within standard	No
Binsey Lane AW	12ECO120	15.3	15.4	0.1	Within standard	No

Designated site name	Receptor ID	NOx concentrations ($\mu\text{g}/\text{m}^3$)		Actual Change ($\mu\text{g}/\text{m}^3$)	Comparison against air quality standard	Potentially Significant
		2025 DM	2025 DS			
Wytham Woods SSSI	13ECO44	16.2	16.2	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO60	15.2	15.2	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO70	14.8	14.8	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO80	14.4	14.4	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO90	14.1	14.1	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO100	13.9	13.9	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO110	13.7	13.7	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO120	13.5	13.5	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO130	13.4	13.4	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO140	13.3	13.3	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO150	13.2	13.2	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO160	13.1	13.1	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO170	13.0	13.0	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO180	12.9	12.9	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO190	12.8	12.8	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO200	12.8	12.8	< 0.1	Within standard	No
Linkside Lake LWS	14ECO179	15.7	15.7	< 0.1	Within standard	No
Linkside Lake LWS	14ECO200	15.5	15.6	0.1	Within standard	No

Table A.12.20: Summary of NO_x critical levels for ecological receptors during operation

Designated site name	Receptor ID	NO _x concentrations (µg/m ³)		Actual Change (µg/m ³)	Comparison against air quality standard	Potentially Significant
		2026 DM	2026 DS			
Stratfield Brake LWS	1ECO10	15.8	16.2	0.4	Within standard	No
Stratfield Brake LWS	1ECO20	15.0	15.2	0.2	Within standard	No
Stratfield Brake LWS	1ECO30	14.5	14.8	0.3	Within standard	No
Stratfield Brake LWS	1ECO40	14.3	14.5	0.2	Within standard	No
Stratfield Brake LWS	1ECO50	14.1	14.2	0.1	Within standard	No
Stratfield Brake LWS	1ECO60	13.9	14.1	0.2	Within standard	No
Stratfield Brake LWS	1ECO70	13.8	13.9	0.1	Within standard	No
Stratfield Brake LWS	1ECO80	13.7	13.8	0.1	Within standard	No
Stratfield Brake LWS	1ECO90	13.7	13.7	< 0.1	Within standard	No
Stratfield Brake LWS	1ECO100	13.6	13.7	0.1	Within standard	No
Stratfield Brake LWS	1ECO110	13.5	13.6	0.1	Within standard	No
Stratfield Brake LWS	1ECO120	13.5	13.5	< 0.1	Within standard	No
Stratfield Brake LWS	1ECO130	13.4	13.5	0.1	Within standard	No
Stratfield Brake LWS	1ECO140	13.4	13.4	< 0.1	Within standard	No
Stratfield Brake LWS	1ECO150	13.3	13.4	0.1	Within standard	No
Stratfield Brake LWS	1ECO160	13.3	13.3	< 0.1	Within standard	No
Stratfield Brake LWS	1ECO170	13.3	13.3	< 0.1	Within standard	No
Stratfield Brake LWS	1ECO180	13.2	13.3	0.1	Within standard	No
Stratfield Brake LWS	1ECO190	13.2	13.2	< 0.1	Within standard	No
Stratfield Brake LWS	1ECO200	13.2	13.2	< 0.1	Within standard	No
Stratfield Brake LWS	2ECO8	18.2	19.0	0.8	Within standard	Yes
Stratfield Brake LWS	2ECO20	16.3	16.8	0.5	Within standard	Yes
Stratfield Brake LWS	2ECO30	15.7	16.1	0.4	Within standard	Yes
Stratfield Brake LWS	2ECO40	15.4	15.7	0.3	Within standard	No

Designated site name	Receptor ID	NOx concentrations ($\mu\text{g}/\text{m}^3$)		Actual Change ($\mu\text{g}/\text{m}^3$)	Comparison against air quality standard	Potentially Significant
		2026 DM	2026 DS			
Stratfield Brake LWS	2ECO50	15.2	15.4	0.2	Within standard	No
Stratfield Brake LWS	2ECO60	15.1	15.3	0.2	Within standard	No
Stratfield Brake LWS	2ECO70	15.0	15.2	0.2	Within standard	No
Stratfield Brake LWS	2ECO80	15.0	15.2	0.2	Within standard	No
Stratfield Brake LWS	2ECO90	15.0	15.2	0.2	Within standard	No
Stratfield Brake LWS	2ECO100	15.0	15.2	0.2	Within standard	No
Stratfield Brake LWS	2ECO110	15.1	15.2	0.1	Within standard	No
Stratfield Brake LWS	2ECO120	15.2	15.3	0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO5	41.7	41.8	0.1	Above standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO20	26.9	27.0	0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO30	23.6	23.6	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO40	21.6	21.6	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO50	20.2	20.3	0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO60	19.2	19.3	0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO70	18.5	18.5	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO80	17.9	18.0	0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO90	17.5	17.5	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO100	17.1	17.1	< 0.1	Within standard	No

Designated site name	Receptor ID	NOx concentrations ($\mu\text{g}/\text{m}^3$)		Actual Change ($\mu\text{g}/\text{m}^3$)	Comparison against air quality standard	Potentially Significant
		2026 DM	2026 DS			
Canalside Meadow-Oxford Canal Marsh LWS	3ECO110	16.8	16.8	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO120	16.5	16.5	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO130	16.2	16.3	0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO140	16.0	16.1	0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO150	15.9	15.9	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO160	15.7	15.7	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO170	15.6	15.6	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO180	15.4	15.4	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO190	15.3	15.3	< 0.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO200	15.2	15.2	< 0.1	Within standard	No
Duke's Meadow LWS	4ECO18	29.7	29.8	0.1	Within standard	No
Duke's Meadow LWS	4ECO30	25.6	25.6	< 0.1	Within standard	No
Duke's Meadow LWS	4ECO40	23.6	23.6	< 0.1	Within standard	No
Duke's Meadow LWS	4ECO50	22.2	22.3	0.1	Within standard	No
Duke's Meadow LWS	4ECO60	21.3	21.3	< 0.1	Within standard	No
Duke's Meadow LWS	4ECO70	20.5	20.6	0.1	Within standard	No
Duke's Meadow LWS	4ECO80	20.0	20.0	< 0.1	Within standard	No
Duke's Meadow LWS	4ECO90	19.5	19.5	< 0.1	Within standard	No

Designated site name	Receptor ID	NOx concentrations ($\mu\text{g}/\text{m}^3$)		Actual Change ($\mu\text{g}/\text{m}^3$)	Comparison against air quality standard	Potentially Significant
		2026 DM	2026 DS			
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO4	43.3	43.4	0.1	Above standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO20	27.5	27.6	0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO30	24.1	24.2	0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO40	22.1	22.1	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO50	20.7	20.7	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO60	19.7	19.8	0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO70	19.0	19.0	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO80	18.4	18.4	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO90	18.0	18.0	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO100	17.6	17.6	< 0.1	Within standard	No

Designated site name	Receptor ID	NOx concentrations ($\mu\text{g}/\text{m}^3$)		Actual Change ($\mu\text{g}/\text{m}^3$)	Comparison against air quality standard	Potentially Significant
		2026 DM	2026 DS			
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	5ECO110	17.3	17.3	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO3	40.2	40.3	0.1	Above standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO20	26.3	26.4	0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO30	23.5	23.5	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO40	21.8	21.8	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO50	20.6	20.7	0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO60	19.8	19.8	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO70	19.2	19.2	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO80	18.7	18.7	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO90	18.3	18.3	< 0.1	Within standard	No

Designated site name	Receptor ID	NOx concentrations ($\mu\text{g}/\text{m}^3$)		Actual Change ($\mu\text{g}/\text{m}^3$)	Comparison against air quality standard	Potentially Significant
		2026 DM	2026 DS			
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO100	18.0	18.0	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO110	17.7	17.8	0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO120	17.5	17.5	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO130	17.3	17.3	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO140	17.2	17.2	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO150	17.0	17.0	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO160	16.9	16.9	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO170	16.8	16.8	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO180	16.7	16.7	< 0.1	Within standard	No
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO190	16.6	16.6	< 0.1	Within standard	No

Designated site name	Receptor ID	NOx concentrations ($\mu\text{g}/\text{m}^3$)		Actual Change ($\mu\text{g}/\text{m}^3$)	Comparison against air quality standard	Potentially Significant
		2026 DM	2026 DS			
Pixy and Yarnton Meads SSSI & Oxford Meadows SAC	6ECO200	16.5	16.5	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO14	30.9	30.9	< 0.1	Above standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO30	24.3	24.3	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO40	22.3	22.3	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO50	20.9	20.9	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO60	19.9	19.9	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO70	19.1	19.2	0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO80	18.6	18.6	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO90	18.1	18.1	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO100	17.7	17.7	< 0.1	Within standard	No

Designated site name	Receptor ID	NOx concentrations ($\mu\text{g}/\text{m}^3$)		Actual Change ($\mu\text{g}/\text{m}^3$)	Comparison against air quality standard	Potentially Significant
		2026 DM	2026 DS			
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO110	17.4	17.4	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO120	17.1	17.1	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO130	16.8	16.9	0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO140	16.6	16.6	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO150	16.4	16.5	0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO160	16.3	16.3	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO170	16.1	16.2	0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO180	16.0	16.0	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO190	15.9	15.9	< 0.1	Within standard	No
Wolvercote Meadows SSSI & Oxford Meadows SAC	7ECO200	15.8	15.8	< 0.1	Within standard	No
Godstow Road AW	8ECO98	17.8	17.8	< 0.1	Within standard	No

Designated site name	Receptor ID	NOx concentrations ($\mu\text{g}/\text{m}^3$)		Actual Change ($\mu\text{g}/\text{m}^3$)	Comparison against air quality standard	Potentially Significant
		2026 DM	2026 DS			
Godstow Road AW	8ECO110	17.4	17.4	< 0.1	Within standard	No
Godstow Road AW	8ECO120	17.1	17.1	< 0.1	Within standard	No
Godstow Road AW	8ECO130	16.9	16.9	< 0.1	Within standard	No
Godstow Road AW	8ECO140	16.6	16.7	0.1	Within standard	No
Godstow Road AW	8ECO150	16.5	16.5	< 0.1	Within standard	No
Godstow Road AW	8ECO160	16.3	16.3	< 0.1	Within standard	No
Godstow Road AW	8ECO170	16.1	16.2	0.1	Within standard	No
Godstow Holt AW	9ECO58	20.1	20.2	0.1	Within standard	No
Godstow Holt AW	9ECO70	19.2	19.3	0.1	Within standard	No
Botley Hill AW	10ECO197	12.7	12.7	< 0.1	Within standard	No
Botley Hill AW	10ECO200	12.6	12.6	< 0.1	Within standard	No
Church Grove AW	11ECO106	15.4	15.4	< 0.1	Within standard	No
Church Grove AW	11ECO120	15.0	15.0	< 0.1	Within standard	No
Church Grove AW	11ECO130	14.7	14.7	< 0.1	Within standard	No
Binsey Lane AW	12ECO79	16.6	16.6	< 0.1	Within standard	No
Binsey Lane AW	12ECO90	16.1	16.1	< 0.1	Within standard	No
Binsey Lane AW	12ECO100	15.7	15.7	< 0.1	Within standard	No
Binsey Lane AW	12ECO110	15.3	15.3	< 0.1	Within standard	No
Binsey Lane AW	12ECO120	15.0	15.1	0.1	Within standard	No
Wytham Woods SSSI	13ECO44	15.9	15.9	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO60	14.9	14.9	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO70	14.5	14.5	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO80	14.1	14.1	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO90	13.9	13.9	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO100	13.6	13.6	< 0.1	Within standard	No

Designated site name	Receptor ID	NOx concentrations ($\mu\text{g}/\text{m}^3$)		Actual Change ($\mu\text{g}/\text{m}^3$)	Comparison against air quality standard	Potentially Significant
		2026 DM	2026 DS			
Wytham Woods SSSI	13ECO110	13.4	13.4	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO120	13.3	13.3	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO130	13.1	13.1	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO140	13.0	13.0	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO150	12.9	12.9	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO160	12.8	12.8	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO170	12.7	12.7	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO180	12.7	12.7	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO190	12.6	12.6	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO200	12.5	12.5	< 0.1	Within standard	No
Linkside Lake LWS	14ECO179	15.4	15.4	< 0.1	Within standard	No
Linkside Lake LWS	14ECO200	15.2	15.3	0.1	Within standard	No

Appendix 12.7: Sensitivity Test

12.7.1 Overview

Traffic data, derived from 2023 survey counts, has been made available for this assessment. As no local authority 2023 monitoring data is currently available at time of writing, no reassessment of model verification was possible to account for this new traffic data. The 2018 adjustment factor of 1.13 has therefore been applied to modelled road NO_x, PM₁₀ and PM_{2.5} contributions at all receptors. As a conservative approach, an additional sensitivity test has been undertaken using a proxy verification factor of 1.5 to account for any potential rise in factor. Results of which are presented in this Appendix.

Table A 12.21 and Table A 12.22 present revised results with the 1.5 proxy verification factor for the construction and operational results respectively. Overall, the conclusions remain unchanged from the results presented within the main assessment.

Table A.12.21: Summary of Annual Mean NO₂ Predicted Pollutant Concentration (Including Backgrounds) and Significance During Construction with Proxi Factor

Receptor ID	Description	NO ₂ Concentration (µg/m ³)		Change in concentration as a percentage of AQAL (%)	Significance
		DM 2025	DS 2025		
Ox_Con_1(a)	Stratfield Brake Sports Ground	-	11.4	-	-
Ox_Con_2	Residential property on Frieze Way	17.0	17.1	<0.1	Negligible
Ox_Con_3	Trax Education Centre, Red Barn Farm Cottage	15.5	15.5	<0.1	Negligible
Ox_Con_4	Residential property at Collett Drive	13.9	13.9	<0.1	Negligible
Ox_Con_5	Residential property at A44 Woodstock Road	21.2	21.3	<0.1	Negligible

Table A.12.22: Summary of Annual Mean NO₂ Predicted Pollutant Concentration (Including Backgrounds) and Significance During Operation with Proxi Factor

Receptor ID	Description	NO ₂ Concentration (µg/m ³)			Significance
		DM 2026	DS 2026	Change in concentration as a percentage of AQAL (%)	
Ox_Op_1	Residential property at A4260 Oxford Rd	12.0	12.1	0.2	Negligible
Ox_Op_2 ^(a)	Stratfield Brake Sports Ground	-	11.1	-	-
Ox_Op_3	Residential property at Oxford Rd	17.8	18.0	0.6	Negligible

Receptor ID	Description	NO ₂ Concentration (µg/m ³)			Significance
		DM 2026	DS 2026	Change in concentration as a percentage of AQAL (%)	
Ox_Op_4	Trax Education Centre, Red Barn Farm Cottage	15.0	15.0	<0.1	Negligible
Ox_Op_5	Residential property at 566 Banbury Road	20.1	20.4	0.8	Negligible
Ox_Op_6 ^(a)	Oxford Hawks Hockey Club	-	11.9	-	-
Ox_Op_7	Committed development - Oxford North	14.0	14.0	<0.1	Negligible
Ox_Op_8	Residential property at 369A Woodstock Road	19.4	19.5	0.2	Negligible
Ox_Op_9	Residential property on .Sunderland Ave	19.6	19.7	0.2	Negligible
Ox_Op_10	Residential property at 31 David Walter Cl	15.3	15.4	<0.1	Negligible
Ox_Op_11	Residential property at 11 Wyatt Road	14.3	14.3	<0.1	Negligible
Ox_Op_12	Residential property at 44 Collett Drive	13.7	13.7	<0.1	Negligible

Table A.12.23 highlights that the changes in nitrogen deposition with ammonia are less than 0.4 kg N/ha/yr at all ecological receptors and are concluded to be of no significant impacts at all modelled ecological receptors during construction, even with the higher proxy verification factor.

Table A.12.24 highlights the changes in nitrogen deposition with ammonia are less than 0.4 kg N/ha/yr at all designated habitats, with the exception of four modelling points at Stratfield Brake LWS transect 1 & transect 2 during operation. It is noted that even in the DM Scenario, the site already exceeds the lower critical load and the change is small in comparison. In accordance with DMRB LA 105 (see Section 12.99 of Chapter 12), this change of greater than 0.4 kg N/ha/yr predicted at these two locations, has been reviewed by the Competent expert for Biodiversity and it is concluded to be not significant. See Chapter 8 for further discussion.

Table A.12.25 highlights that ecological designated sites adjacent to the A34 are 'above standard'; however, the overall change is small and therefore not significant. The largest change in NO_x concentrations is at the Stratfield Brake LWS transects, which exceeds a change greater than 0.4 µg/m³ however this site is 'within standard' and is therefore not significant, even with the higher proxy verification factor.

Table A.12.26 highlights that ecological designated sites adjacent to the A34 are 'above standard'; however, the overall change is small and therefore not significant. The largest change in NO_x concentrations is at the Stratfield Brake LWS transects, which exceeds a change greater than 0.4 µg/m³ however this site is 'within standard' and is therefore not significant, even with the higher proxy verification factor.

Overall, the conclusions remain unchanged from the results presented within the main assessment.

Table A.12.23: Summary of worst case ecological receptors during construction (2025), nitrogen deposition with ammonia emissions with proxy verification factor

Designated site name	Receptor ID with greatest change in N deposition	Lower critical load (CL) (kg N/ha/yr)	Average background N deposition (kg N/ha/yr)	DM 2025 total N deposition (kg N/ha/yr)	DS 2025 total N deposition (kg N/ha/yr)	Change in N deposition (DS-DM) (kg N/ha/yr)	Potentially Significant
Stratfield Brake LWS (transect 1)	1ECO10	5	25.9	30.1	30.3	0.2	No
Stratfield Brake LWS (transect 2)	2ECO8	5	25.9	33.5	33.9	0.4	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO5	5	15	35.3	35.4	< 0.1	No
Duke's Meadow LWS	4ECO18	5	15.3	25.8	25.8	< 0.1	No
Oxford Meadows SAC	5ECO4	10	15.3	36.7	36.7	< 0.1	No
Pixy and Yarnton Meads SSSI	6ECO4	10	15.3	34.2	34.3	< 0.1	No
Wolvercote Meadows SSSI	7ECO14	10	14.9	27.5	27.5	< 0.1	No
Godstow Road AW	8ECO98	5	26.3	31.4	31.4	< 0.1	No
Godstow Holt AW	9ECO58	5	26.2	33.9	34.0	< 0.1	No
Botley Hill AW	10ECO197	5	26.2	27.8	27.8	< 0.1	No
Church Grove AW	11ECO106	5	26.2	30.9	31.0	< 0.1	No
Binsey Lane AW	12ECO79	5	26.2	32.3	32.3	< 0.1	No
Wytham Woods SSSI	13ECO44	15	26.2	31.5	31.5	< 0.1	No
Linkside Lake LWS	14ECO179	5	26.2	29.6	29.6	< 0.1	No

Table A.12.24: Summary of worst case ecological receptors during operation (2026), nitrogen deposition with ammonia emissions and proxy adjustment factor

Designated site name	Receptor ID with greatest change in N deposition	Lower critical load (CL) (kg N/ha/yr)	Average background N deposition (kg N/ha/yr)	DM 2026 total N deposition (kg N/ha/yr)	DS 2026 total N deposition (kg N/ha/yr)	Change in N deposition (DS-DM) (kg N/ha/yr)	Potentially Significant
Stratfield Brake LWS (transect 1)	1ECO10	5	25.9	30.6	31.0	0.5	Yes
Stratfield Brake LWS (transect 2)	2ECO8	5	25.9	33.4	34.4	1.0	Yes
	2ECO20	5	25.9	31.1	31.7	0.6	Yes
	2ECO30	5	25.9	30.4	30.8	0.5	Yes
Canalside Meadow-Oxford Canal Marsh LWS	3ECO5	5	15.0	36.8	36.9	0.1	No
Duke's Meadow LWS	4ECO18	5	15.3	26.5	26.6	0.1	No
Oxford Meadows SAC	5ECO4	10	15.3	37.8	37.9	0.1	No
Pixy and Yarnton Meads SSSI	6ECO4	10	15.1	35.2	35.3	0.1	No
Wolvercote Meadows SSSI	7ECO14	10	14.9	28.2	28.2	< 0.1	No
Godstow Road AW	8ECO98	5	26.3	31.7	31.7	< 0.1	No
Godstow Holt AW	9ECO58	5	26.2	34.3	34.3	< 0.1	No
Botley Hill AW	10ECO197	5	26.2	27.8	27.9	0.1	No
Church Grove AW	11ECO106	5	26.2	31.2	31.2	< 0.1	No
Binsey Lane AW	12ECO79	5	26.2	32.6	32.6	< 0.1	No
Wytham Woods SSSI	13ECO44	15	26.2	31.7	31.7	< 0.1	No
Linkside Lake LWS	14ECO179	5	26.2	29.7	29.7	< 0.1	No

Table A.12.25: Summary of NO_x critical levels for ecological receptors during construction (2025), with proxy adjustment factor

Designated site name	Receptor ID	NO _x concentrations (µg/m ³)		Actual Change (µg/m ³)	Comparison against air quality standard	Potentially Significant
		2025 DM	2025 DS			
Stratfield Brake LWS (transect 1)	1ECO10	20.2	20.4	0.2	Within standard	No
Stratfield Brake LWS (transect 2)	2ECO8	24.2	24.7	0.5	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO5	51.4	51.5	0.1	Above standard	No
Duke's Meadow LWS	4ECO18	35.0	35.0	< 0.1	Above standard	No
Oxford Meadows SAC	5ECO4	54.2	54.2	< 0.1	Above standard	No
Pixy and Yarnton Meads SSSI	6ECO3	49.9	49.9	< 0.1	Above standard	No
Wolvercote Meadows SSSI	7ECO14	37.3	37.4	0.1	Above standard	No
Godstow Road AW	8ECO98	19.5	19.5	< 0.1	Within standard	No
Godstow Holt AW	9ECO58	22.8	22.8	< 0.1	Within standard	No
Botley Hill AW	10ECO197	13.4	13.4	< 0.1	Within standard	No
Church Grove AW	11ECO106	17	17	< 0.1	Within standard	No
Binsey Lane AW	12ECO79	18.8	18.8	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO44	17.8	17.8	< 0.1	Within standard	No
Linkside Lake LWS	14ECO179	16.7	16.7	< 0.1	Within standard	No

Table A.12.26: Summary of NOx critical levels for ecological receptors during operation (2026), with proxy adjustment factor

Designated site name	Receptor ID	NOx concentrations ($\mu\text{g}/\text{m}^3$)		Actual Change ($\mu\text{g}/\text{m}^3$)	Comparison against air quality standard	Potentially Significant
		2026 DM	2026 DS			
Stratfield Brake LWS (transect 1)	1ECO10	17.1	17.6	0.5	Within standard	No
Stratfield Brake LWS (transect 2)	2ECO8	20.2	21.3	1.1	Within standard	No
Canalside Meadow-Oxford Canal Marsh LWS	3ECO5	51.3	51.4	0.1	Above standard	No
Duke's Meadow LWS	4ECO18	34.6	34.7	0.1	Above standard	No
Oxford Meadows SAC	5ECO4	53.1	53.3	0.2	Above standard	No
Pixy and Yarnton Meads SSSI	6ECO3	49.0	49.1	0.1	Above standard	No
Wolvercote Meadows SSSI	7ECO14	36.6	36.7	0.1	Above standard	No
Godstow Road AW	8ECO98	19.2	19.3	0.1	Within standard	No
Godstow Holt AW	9ECO58	22.4	22.4	< 0.1	Within standard	No
Botley Hill AW	10ECO197	13.1	13.1	< 0.1	Within standard	No
Church Grove AW	11ECO106	16.7	16.8	0.1	Within standard	No
Binsey Lane AW	12ECO79	18.4	18.4	< 0.1	Within standard	No
Wytham Woods SSSI	13ECO44	17.4	17.4	< 0.1	Within standard	No
Linkside Lake LWS	14ECO179	16.3	16.4	0.1	Within standard	No

