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HS2

High Speed Rail (Crewe – Manchester) Environmental Statement

Volume 5: Appendix AQ-001-0MA06

Air quality

MA06: Hulseheath to Manchester Airport

Air quality report

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Department for Transport

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1 Introduction

1.1.1 The report is an appendix to the air quality assessment for the Proposed Scheme in relation to the Hulseheath to Manchester Airport area (MA06).

1.1.2 This appendix comprises:

- baseline air quality data;
- construction dust assessment; and
- assessment of road traffic emissions.

1.1.3 Maps referred to throughout this appendix are contained in the Volume 5, Air quality Map Book: map AQ-01-306.

1.1.4 Additional data used for the air quality assessment, including traffic data, are set out in Background Information and Data (BID) (BID AQ-002-0MA06)[1].

1.1.5 The assessment scope, key assumptions and limitations, and the methodology for determining significance of effects for air quality are set out in Volume 1, Introduction and methodology, Section 9 and the Environmental Impact Assessment Scope and Methodology Report (SMR) (see Volume 5: Appendix CT-001-00001).

1.1.6 The air quality standards relevant to this assessment are:

- 40µg/m^3 as an annual mean for nitrogen dioxide (NO_2) and fine particulate matter (PM_{10});
- 200µg/m^3 one-hour mean for NO_2 not to be exceeded more than 18 times a year (equivalent to the 99.8th percentile of the one-hour mean);
- 50µg/m^3 24-hour mean for PM_{10} not to be exceeded more than 35 times a year (equivalent to the 90.4th percentile of the 24-hour mean); and
- 25µg/m^3 as an annual mean for fine particulate matter ($PM_{2.5}$).

[1] High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Background Information and Data, Additional data used in the air quality assessment,* BID AQ-002-0MA06. Available online at: https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-environmental-statement.

2 Baseline air quality data

2.1 Existing air quality

Local authority review and assessment information

2.1.1 Cheshire East Council (CEC) covers most of the Hulseheath to Manchester Airport area with Trafford Metropolitan Borough Council (TMBC) and Manchester City Council (MCC) lying to the north edges of the area. All councils review air quality throughout the area following the local air quality management (LAQM) regime from the Department for Environment, Food and Rural Affairs (Defra)[2].

2.1.2 There is one air quality management area (AQMA) within the Hulseheath to Manchester Airport area declared for exceedances of the annual mean NO_2 standard. The Greater Manchester Combined Authority AQMA encompasses the entirety of Manchester City Centre, along with other areas in the 10 districts of Greater Manchester, including arterial routes, district centres and the airport. It was declared in May 2016 and crosses the Proposed Scheme on the M56.

Local air quality monitoring data

2.1.3 Monitoring sites within the study area that are relevant for this assessment are shown in the accompanying map AQ-01-306. The following sections provide a summary of the recorded pollutant concentrations at these sites. Further details on monitoring data are presented in BID AQ-002-0MA06.

Diffusion tubes

2.1.4 The local authorities in this area undertake air quality monitoring with the use of passive diffusion tubes as part of their LAQM process. There are six diffusion tube sites within the Hulseheath to Manchester Airport area. These are located: near the B5166 Styal Road, the A538 Hale Road, in Bucklow Hill, near the A556 Chester Road, near the B5165 Stockport Road in Timperley and near the A56 Manchester Road in Sale.

2.1.5 HS2 Ltd has undertaken additional monitoring for the purpose of verifying the air quality assessment at five locations in this area.

2.1.6 Measurements of NO_2 were within the air quality standard at all of the sites in 2018.

[2] Department for Environment, Food and Rural Affairs (Defra) (2020), *Defra Background Pollutant Concentration Maps*. Available online at: https://uk-air.defra.gov.uk/data/laqm-background-maps?year=2018.

Background pollutant concentrations

2.1.7 Estimates of background air quality were obtained from the Defra maps[2]. Background pollutant concentrations are within the air quality standards throughout the study area. Table 1 presents the range of background pollutant concentrations within the Hulseheath to Manchester Airport area for the existing and future baseline.

2.1.8 Background pollutant concentrations for the operational year of 2038 have been taken from the Defra background maps for 2030, which is the latest available year of data. The 2030 background maps have been used as representative of the future baseline conditions during operation of the Proposed Scheme.

Table 1: Range of background pollutant concentrations

Pollutant	Background concentrations (µg/m^3)		
	2018	2025	2038
Annual mean NOx	12.5µg/m^3 to 45.7µg/m^3	9.6µg/m^3 to 36.0µg/m^3	8.7µg/m^3 to 33.2µg/m^3
Annual mean NO_2	9.5µg/m^3 to 28.8µg/m^3	7.5µg/m^3 to 23.4µg/m^3	6.8µg/m^3 to 21.8µg/m^3
Annual mean PM_{10}	9.4µg/m^3 to 13.6µg/m^3	8.6µg/m^3 to 12.6µg/m^3	8.5µg/m^3 to 12.6µg/m^3
Annual mean $PM_{2.5}$	6.4µg/m^3 to 8.9µg/m^3	5.7µg/m^3 to 8.1µg/m^3	5.7µg/m^3 to 8.1µg/m^3

3 Construction dust assessment

3.1.1 This section provides details of the assessment of dust emissions during construction of the Proposed Scheme. Due to the linear nature of the Proposed Scheme and its associated dust generating activities, the construction dust assessment has been undertaken in detail for distinct assessment areas in the Hulseheath to Manchester Airport area.

3.2 Dust soiling and human health effects

Assessed receptors and sensitivity of the area

3.2.1 The assessment of dust soiling and human health effects has been undertaken for the following areas from east to west:

- area around Hulseheath: there are no demolition activities in this area. Residential dwellings are located within 20m of earthworks, construction and trackout activities;
- area around Rostherne: residential dwellings are located within 100m of demolition activities, and within 20m of earthworks, construction and trackout activities;
- area around Ashley Heath: there are no demolition or trackout activities in this area. Residential dwellings are located within 20m of earthworks and construction activities;
- area around Hale: residential dwellings are located within 200m of demolition activities, and within 20m of earthworks, construction and trackout activities;
- area around Thorns Green: residential dwellings are located within 200m of demolition activities, and within 20m of earthworks, construction and trackout activities;
- area around Warburton Green: residential dwellings are located within 20m of demolition, earthworks, construction and trackout activities;
- area around Hale Barns: residential dwellings are located within 200m of demolition activities, and within 20m of earthworks, construction and trackout activities; and
- area around Manchester Airport: there are no demolition activities in this area. Residential dwellings are located within 20m of earthworks, construction and trackout activities.

3.2.2 Table 2 presents the sensitivity of each area to dust soiling and human health effects.

Table 2: Sensitivity of area to dust soiling and human health effects

Effect	Demolition	Earthworks	Construction	Trackout
Area around Hulseheath				
Dust soiling	Not applicable	High risk	High risk	Medium risk
Human health	Not applicable	Low risk	Low risk	Low risk
Area around Rostherne				
Dust soiling	Low risk	Medium risk	Medium risk	Medium risk
Human health	Low risk	Low risk	Low risk	Low risk

Effect	Demolition	Earthworks	Construction	Trackout
Area around Ashley Heath				
Dust soiling	Not applicable	Medium risk	Medium risk	Not applicable
Human health	Not applicable	Low risk	Low risk	Not applicable
Area around Hale				
Dust soiling	Low risk	High risk	High risk	High risk
Human health	Low risk	Medium risk	Medium risk	Medium risk
Area around Thorns Green				
Dust soiling	Low risk	Medium risk	Medium risk	Medium risk
Human health	Low risk	Low risk	Low risk	Low risk
Area around Warburton Green				
Dust soiling	High risk	High risk	High risk	High risk
Human health	Medium risk	Medium risk	Medium risk	Medium risk
Area around Hale Barns				
Dust soiling	Low risk	High risk	High risk	High risk
Human health	Low risk	Medium risk	Medium risk	Medium risk
Area around Manchester Airport				
Dust soiling	Not applicable	High risk	High risk	High risk
Human health	Not applicable	Medium risk	Medium risk	Medium risk

Dust emission magnitude

3.2.3 Each dust generating activity has been assigned a dust emission magnitude as shown in Table 3.

Table 3: Dust emission magnitude for dust soiling and human health

Area	Demolition	Earthworks	Construction	Trackout
Area around Hulseheath	Not applicable	Large	Large	Large
Area around Rostherne	Medium	Large	Large	Large
Area around Ashley Heath	Not applicable	Large	Large	Large
Area around Hale	Small	Large	Large	Large
Area around Thorns Green	Medium	Large	Large	Large
Area around Warburton Green	Large	Large	Large	Large
Area around Hale Barns	Small	Large	Large	Large
Area around Manchester Airport	Not applicable	Large	Large	Large

Risk of impacts

3.2.4 Taking into consideration the dust emission magnitude of each activity and the sensitivity of each area, the risk of dust effects has been defined for each area as shown in Table 4.

Table 4: Risk of dust soiling and human health effects

Effect	Demolition	Earthworks	Construction	Trackout
Area around Hulseheath				
Dust soiling	Not applicable	High risk	High risk	Medium risk
Human health	Not applicable	Low risk	Low risk	Low risk
Area around Rostherne				
Dust soiling	Low risk	Medium risk	Medium risk	Medium risk
Human health	Low risk	Low risk	Low risk	Low risk
Area around Ashley Heath				
Dust soiling	Not applicable	Medium risk	Medium risk	Not applicable
Human health	Not applicable	Low risk	Low risk	Not applicable
Area around Hale				
Dust soiling	Negligible risk	High risk	High risk	High risk
Human health	Negligible risk	Medium risk	Medium risk	Medium risk
Area around Thorns Green				
Dust soiling	Low risk	Medium risk	Medium risk	Medium risk
Human health	Low risk	Low risk	Low risk	Low risk
Area around Warburton Green				
Dust soiling	High risk	High risk	High risk	High risk
Human health	High risk	Medium risk	Medium risk	Medium risk
Area around Hale Barns				
Dust soiling	Negligible risk	High risk	High risk	High risk
Human health	Negligible risk	Medium risk	Medium risk	Medium risk
Area around Manchester Airport				
Dust soiling	Not applicable	High risk	High risk	High risk
Human health	Not applicable	Medium risk	Medium risk	Medium risk

3.3 Ecological effects

Assessed receptors and sensitivity of the area

3.3.1 The assessment of ecological effects has been undertaken for the following areas from east to west:

- Millington Clough Ancient Woodland (AW): there are no demolition or trackout activities near this ecological receptor, but it is within 20m of earthworks and construction;
- Rostherne Mere National Nature Reserve (NNR)/Site of Special Scientific Interest (SSSI)/Ramsar, Yarwood Heath Covert Local Wildlife Site (LWS), Hancock's Bank South LWS and Hancock's Bank North LWS: these receptors are located within 50m of demolition activities and within 20m of earthworks, construction and trackout activities;

- Hancock's Bank 1, 2 and 3 AWs, Ryecroft Covert (SBI/LWS): there are no demolition or trackout activities near these ecological receptors, but they are within 20m of earthworks and construction activities;
- Ryecroft Covert AW, Ashley Mill Wood LWS, Birkinheath Covert LWS: there are no demolition activities near these ecological receptors, but they are within 20m of earthworks, construction and trackout activities;
- Wood near Arden House LWS, Arden House Wood AW, Ashley Brickworks LWS, Sugar Brook LWS/AW, Ecclesfield Wood LWS: there are no demolition activities near these ecological receptors, but they are within 20m of earthworks, construction and trackout activities;
- Brickhill Wood LWS/AW, Mill Wood LWS, Castle Mill LWS, Bollin Oxbow at Castle Hill LWS, Veteran Oak Tree, Thorns Green LWS: these ecological receptors are within 20m of demolition, earthworks, construction and trackout activities;
- Wood near Chapel Lane SBI, Hennersley Bank AW, Cotterill Clough SSSI, Sunbank Wood AW: there are no demolition activities near these ecological receptors, but they are within 20m of earthworks, construction and trackout activities;
- Warburton Wood AW, Well and Double Woods SBI, Rossmill SBI, Cotterill Clough AW, Cotterill Clough SSSI, there are no demolition activities near these ecological receptors, but they are within 20m of earthworks, construction and trackout activities; and
- Davenport Green Wood AW/SBI: there are no demolition or trackout activities near these ecological receptors, but they are within 20m of earthworks and construction activities.

3.3.2 Table 5 presents the sensitivity of each area to ecological effects.

Table 5: Sensitivity of area to ecological effects

Area	Demolition	Earthworks	Construction	Trackout
Millington Clough AW	Not applicable	Low	Low	Not applicable
Area around Millington Rostherne Mere (NNR/SSSI), Rostherne Mere (RAMSAR), Yarwood Heath Covert (LWS), Hancock's Bank South (LWS), Hancock's Bank North (LWS)	Medium	High	High	High
Hancock's Bank 1, 2 and 3 (AWs), Ryecroft covert (SBI/LWS)	Not applicable	Low	Low	Not applicable
Ryecroft Covert (AW), Ashley Mill Wood (LWS), Birkinheath Covert (LWS)	Not applicable	Low	Low	Low
Wood near Arden House (LWS), Arden House Wood (AW), Ashley Brickworks (LWS), Sugar Brook (LWS/AW), Ecclesfield (LWS)	Not applicable	Low	Low	Low

Area	Demolition	Earthworks	Construction	Trackout
Brickhill Wood (LWS/AW), Mill Wood; Castle Mill (LWS), Bollin Oxbow at Castle Hill (LWS), Veteran Oak Tree, Thorns Green (LWS)	Low	Low	Low	Low
Wood near Chapel Lane (SBI), Hennersley Bank (AW), Cotterill Clough (SSSI), Sunbank Wood (AW)	Not applicable	Medium	Medium	Medium
Warburton Wood (AW), Well and Double Woods (SBI), Rossmill (SBI), Cotterill Clough (AW), Cotterill Clough (SSSI)	Not applicable	Low	Low	Low
Davenport Green Wood (AW/SBI)	Not applicable	Low	Low	Not applicable

Dust emission magnitude

3.3.3 Each dust generating activity has been assigned a dust emission magnitude as shown in Table 6.

Table 6: Dust emission magnitude for ecological effects

Area	Demolition	Earthworks	Construction	Trackout
Millington Clough (AW)	Not applicable	Large	Large	Not applicable
Area around Millington Rostherne Mere (NNR/SSSI), Rostherne Mere (RAMSAR), Yarwood Heath Covert (LWS), Hancock's Bank South (LWS), Hancock's Bank North (LWS)	Medium	Large	Large	Large
Hancock's Bank 1, 2 and 3 (AWs), Ryecroft covert (SBI/LWS)	Not applicable	Large	Large	Not applicable
Ryecroft Covert (AW), Ashley Mill Wood (LWS), Birkinheath Covert (LWS)	Not applicable	Large	Large	Large
Wood near Arden House (LWS), Arden House Wood (AW), Ashley Brickworks (LWS), Sugar Brook (LWS/AW), Ecclesfield (LWS)	Not applicable	Large	Large	Large
Brickhill Wood (LWS/AW), Mill Wood; Castle Mill (LWS), Bollin Oxbow at Castle Hill (LWS), Veteran Oak Tree Thorns Green (LWS)	Medium	Large	Large	Large
Wood near Chapel Lane (SBI), Hennersley Bank (AW), Cotterill Clough (SSSI), Sunbank Wood (AW)	Not applicable	Large	Large	Large
Warburton Wood (AW), Well and Double Woods (SBI), Rossmill (SBI),	Not applicable	Large	Large	Large

Area	Demolition	Earthworks	Construction	Trackout
Cotterill Clough (AW), Cotterill Clough (SSSI)				
Davenport Green Wood (AW/SBI)	Not applicable	Large	Large	Not applicable

Risk of impacts

3.3.4 Taking into consideration the dust emission magnitude of each activity and the sensitivity of each area, the risk of dust effects has been defined for each area as shown in Table 7.

Table 7: Risk of ecological effects

Area	Demolition	Earthworks	Construction	Trackout
Millington Clough (AW)	Not applicable	Low risk	Low risk	Not applicable
Area around Millington Rostherne Mere (NNR/SSSI), Rostherne Mere (RAMSAR), Yarwood Heath Covert (LWS), Hancock's Bank South (LWS), Hancock's Bank North (LWS)	Medium risk	High risk	High risk	High risk
Hancock's Bank 1, 2 and 3 (AW), Ryecroft covert (SBI/LWS)	Not applicable	Low risk	Low risk	Not applicable
Ryecroft Covert (AW), Ashley Mill Wood (LWS), Birkinheath Covert (LWS)	Not applicable	Low risk	Low risk	Low risk
Wood near Arden House (LWS), Arden House Wood (AW), Ashley Brickworks (LWS), Sugar Brook (LWS/AW), Ecclesfield (LWS)	Not applicable	Low risk	Low risk	Low risk
Brickhill Wood (LWS/AW), Mill Wood; Castle Mill (LWS), Bollin Oxbow at Castle Hill (LWS), Veteran Oak Tree Thorns Green (LWS)	Low risk	Low risk	Low risk	Low risk
Wood near Chapel Lane (SBI), Hennersley Bank (AW), Cotterill Clough (SSSI), Sunbank Wood (AW)	Not applicable	Medium risk	Medium risk	Medium risk
Warburton Wood (AW), Well and Double Woods (SBI), Rossmill (SBI), Cotterill Clough (AW), Cotterill Clough (SSSI)	Not applicable	Low risk	Low risk	Low risk
Davenport Green Wood (AW/SBI)	Not applicable	Low risk	Low risk	Not applicable

3.4 Summary of risks

3.4.1 The summary of risks identified within the Hulseheath to Manchester Airport area is shown in Table 8. As there are several construction locations in this area, a range of risks is shown which depend on the location of sensitive receptors and the magnitude of dust generating activities.

Table 8: Summary of risks for construction dust assessment

Activity	Dust soiling	Human health	Ecological effects
Demolition	Negligible to high	Negligible to high	Low to medium
Earthworks	Medium to high	Low to medium	Low to high
Construction	Medium to high	Low to medium	Low to high
Trackout	Medium to high	Low to medium	Low to high

4 Assessment of road traffic emissions

4.1 Overall assessment approach

4.1.1 The air quality assessment for road traffic emissions has used the approach described in the SMR (see Volume 5: Appendix CT-001-00001). Pollutant concentrations have been predicted at sensitive human and ecological receptors where these are located within 200m of the affected road network. Where ecological sites have been assessed, the change in nitrogen (N) deposition has been predicted for comparison against the lower critical load for the site.

4.2 Model inputs and verification

Model parameters

4.2.1 The ADMS-Roads model was used to predict pollutant concentrations from changes in road traffic emissions. A surface roughness of 0.3m was used in the south and 0.5m in the north, due to differing topographical conditions within the Hulseheath to Manchester Airport area. A surface roughness of 0.2m was used for the meteorological site. Minimum Monin-Obukhov lengths of 10m and 30m were used for the south and north, respectively, and a latitude of 53 degrees were used in the assessment. Meteorological data from the Manchester Airport monitoring site were used for the year 2018.

Model verification

4.2.2 Verification was undertaken for the year 2018 comparing monitored and modelled NO_2 concentrations. The traffic data provided were assumed to be representative of 2018. The results of this comparison are shown in Table 9 and Table 10.

4.2.3 Model verification was undertaken where monitoring sites are located adjacent to the modelled road network. The objectives of the model verification are to evaluate model performance and to determine if model adjustment is required.

4.2.4 Some of the monitoring locations were not considered suitable for model verification, due missing traffic, siting issues and other spatial considerations. A total of 27 monitoring sites were included in the model verification exercise.

Table 9: Comparison of monitored and modelled NO_2 concentrations

Site	Monitored concentration (µg/m³)	Modelled concentration (µg/m³)	Difference [(modelled – monitored) / monitored]
CE301#	42.8	38.4	-10.3%
CE54#	42.7	34.4	-19.4%
CE298#	26.4	18.1	-31.4%
MA03.4#	21.8	17.1	-21.6%

Site	Monitored concentration (µg/m³)	Modelled concentration (µg/m³)	Difference [(modelled – monitored) / monitored]
MA03.5#	18.2	16.9	-7.1%
MA06.1#	19.5	16.7	-14.4%
MA06.2	28.7	20.9	-27.2%
MA06.3#	22.6	22.5	-0.4%
MA06.4	31.3	32.8	4.8%
MA06.5	32.0	35.2	10.0%
MA06.6	37.7	30.5	-19.1%
SK12	38.0	36.2	-4.7%
STK7	37.0	36.1	-2.4%
(89a 89b)	30.6	28.2	-7.8%
(86a 86b)	32.0	26.0	-18.8%
MA07.1	45.7	35.2	-23.0%
MA07.3	30.2	22.9	-24.2%
MA08.4	41.3	31.6	-23.5%
TM13	41.8	40.5	-3.1%
TM24	32.1	22.9	-28.7%
TM56	42.8	35.4	-17.3%
SK20	41.9	40.9	-2.4%
M-36	33.1	26.8	-19.0%
SA62	31.4	30.4	-3.2%
SA26	33.9	28.4	-16.2%
SA44	35.3	37.4	5.9%
SA59	33.3	27.2	-18.3%

Note: # indicates that site is located in the southern part of MA06, all other sites are located in the densely populated northern part of MA06, MA07 and MA08

4.2.5 As some of the modelled NO_2 concentrations were greater than ±25% of the monitored concentrations and there was systematic under prediction, model adjustment was undertaken. A factor of 1.4 has been applied to modelled NOx concentrations in the northern part of MA06, MA07 and MA08 and a factor of 1.5 has been applied to modelled NOx concentrations to the south of the Hulseheath to Manchester Airport area. Modelled concentrations of PM_{10} and $PM_{2.5}$ have not been adjusted.

Table 10: Comparison of monitored and adjusted modelled NO_2 concentrations

Site	Monitored concentration (µg/m³)	Modelled adjusted concentration (µg/m³)	Difference (modelled - monitored/monitored)
CE301#	42.8	46.1	7.7%
CE54#	42.7	40.7	-4.7%
CE298#	26.4	20.6	-22.0%
MA03.4#	21.8	19.8	-9.2%

Site	Monitored concentration (µg/m³)	Modelled adjusted concentration (µg/m³)	Difference (modelled - monitored/monitored)
MA03.5#	18.2	18.2	0.0%
MA06.1#	19.5	18.3	-6.2%
MA06.2	28.7	23.4	-18.5%
MA06.3#	22.6	24.3	7.5%
MA06.4	31.3	35.2	12.5%
MA06.5	32.0	37.6	17.5%
MA06.6	37.7	32.8	-13.0%
SK12	38.0	41.3	8.7%
STK7	37.0	41.1	11.1%
(89a 89b)	30.6	31.0	1.3%
(86a 86b)	32.0	28.2	-11.9%
MA07.1	45.7	39.1	-14.4%
MA07.3	30.2	24.1	-20.2%
MA08.4	41.3	35.4	-14.3%
TM13	41.8	45.3	8.4%
TM24	32.1	24.6	-23.4%
TM56	42.8	38.6	-9.8%
SK20	41.9	45.2	7.9%
M-36	33.1	28.5	-13.9%
SA62	31.4	33.2	5.7%
SA26	33.9	30.7	-9.4%
SA44	35.3	41.9	18.7%
SA59	33.3	29.1	-12.6%

Note: # indicates that site is located in the southern part of MA06, all other sites are located in the densely populated northern part of MA06, MA07 and MA08.

4.3 Assessment of construction traffic emissions

4.3.1 Construction traffic data used in this assessment detailed in BID (BID AQ-002-0MA06)[1]. The assessment of construction traffic emissions has used traffic data based on an estimate of the average maximum daily flows in the peak year during the construction period (2025 – 2037). Vehicle emissions and background concentrations have been taken for the first construction year in 2025 as a worst case. Seven construction scenarios have been assessed to capture peak construction traffic activity at different times in the construction period. It has been assumed that the changes in construction traffic will occur for the whole year. In some cases, this is a conservative approach, as the duration of the peak traffic flows may well be much shorter. These scenarios have been assessed against the relevant future baseline case without the Proposed Scheme.

4.3.2 Traffic data in the study area have been screened to identify roads that require further assessment and to confirm the likely effect of the change in emissions from vehicles using these roads during construction of the Proposed Scheme. The screening criteria are detailed in the SMR (see Volume 5: Appendix CT-001-00001) and are largely based on the Design Manual for Roads and Bridges (DMRB) thresholds for changes in annual average daily traffic (AADT), changes in daily heavy duty vehicles (HDV) flows and/or changes in road alignment by 5m or more.

4.3.3 Traffic data for construction vehicles using the site haul routes and moving between compounds have also been included in the assessment. Additional roads have also been included in the assessment where relevant to account for their emissions at nearby receptors.

Receptors assessed and background concentrations

4.3.4 Sensitive receptors have been selected from the OS AddressBase Premium database. The receptors consist of residential properties, schools, hospitals and/or care homes within 200m of the screened in roads and represent worst-case exposure locations. The location of all receptors is shown in accompanying map AQ-01-306.

4.3.5 Three designated ecological receptors were identified within 200m of the screened in roads within the Hulseheath to Manchester Airport area during construction of the Proposed Scheme. These ecological receptors are the Rostherne Mere SSSI, the Rostherne Mere Ramsar site and Cotterill Clough SSSI.

4.3.6 Details of the assessed receptors and the background concentrations used in the assessment are shown in Table 11 for human and Table 12 for ecological receptors.

Table 11: Modelled receptors and background concentrations (construction phase)

Receptor	Description/Location	Ordnance survey coordinates	Background concentrations in 2025 (µg/m^3)			
			NOx	NO_2	PM_{10}	$PM_{2.5}$
6-C-H001	London Road, Alderley Edge	384349, 378484	11.8	9.1	8.9	5.9
6-C-H002	Alderley Edge School for Girls, Wilmslow Road, Alderley Edge	384216, 378757	11.8	9.1	8.9	5.9
6-C-H003	Hurst Lea Court, Alderley Edge	384230, 378807	11.8	9.1	8.9	5.9
6-C-H004	Brook Lane, Alderley Edge	384168, 378880	11.8	9.1	8.9	5.9
6-C-H005	Brook Lane, Alderley Edge	383293, 379212	10.7	8.3	8.9	6.0
6-C-H006	Brook Lane, Alderley Edge	383178, 379297	10.7	8.3	8.9	6.0
6-C-H007	Mobberley Road, Knutsford	376717, 379440	12.5	9.5	9.7	6.4
6-C-H008	Hall Lane, Mobberley	379850, 379455	10.0	7.8	8.8	5.8

Receptor	Description/Location	Ordnance survey coordinates	Background concentrations in 2025 (µg/m³)			
			NOx	NO_2	PM_{10}	$PM_{2.5}$
6-C-H009	Hall Lane, Knolls Green	379788, 379465	10.0	7.8	8.8	5.8
6-C-H010	Mobberley, Knutsford	378597, 379620	10.6	8.2	9.7	6.2
6-C-H011	Mobberley, Knutsford	378259, 379663	10.6	8.2	9.7	6.2
6-C-H012	Tipping Brow, Mobberley	379107, 379740	10.0	7.8	8.8	5.8
6-C-H013	Hough Lane, Wilmslow	385709, 379870	10.0	7.8	8.5	5.6
6-C-H014	Hough Lane, Wilmslow	385792, 380148	10.7	8.3	8.9	5.9
6-C-H015	Kingsley Lodge, Wilmslow	385815, 380449	10.7	8.3	8.9	5.9
6-C-H016	Burnside Close, Wilmslow	385046, 380491	10.7	8.3	8.9	5.9
6-C-H017	Prestbury Road, Wilmslow	385871, 380496	10.7	8.3	8.9	5.9
6-C-H018	Avondale Rise, Wilmslow	385836, 380512	10.7	8.3	8.9	5.9
6-C-H019	Burnside Close, Wilmslow	385033, 380524	10.7	8.3	8.9	5.9
6-C-H020	Alderley Road, Wilmslow	384243, 380540	12.0	9.2	9.0	6.0
6-C-H021	Alderley Road, Wilmslow	384304, 380581	12.0	9.2	9.0	6.0
6-C-H022	Hough Lane, WIlmslow	385864, 380631	10.7	8.3	8.9	5.9
6-C-H023	Alderley Road, Wilmslow	384375, 380660	12.0	9.2	9.0	6.0
6-C-H024	Alderley Road, Wilmslow	384376, 380707	12.0	9.2	9.0	6.0
6-C-H025	Albert Road, Wilmslow	384406, 380749	12.0	9.2	9.0	6.0
6-C-H026	Cygnet Court (Nursery), Hawthorn Street, Wilmslow	384138, 380806	12.0	9.2	9.0	6.0
6-C-H027	Queen Anne Court, Macclesfield Road, Wilmslow	385083, 380817	10.7	8.3	8.9	5.9
6-C-H028	Alderley Road, Wilmslow	384491, 380846	12.0	9.2	9.0	6.0
6-C-H029	The Hawthorns (Nursery), Hawthorn Street, Wilmslow	384186, 380853	12.0	9.2	9.0	6.0
6-C-H030	Lawdon Court, Beech Lane	384170, 380884	12.0	9.2	9.0	6.0
6-C-H031	Beech Lane, Wilmslow	384176, 380944	12.0	9.2	9.0	6.0
6-C-H032	Alderley Road, Wilmslow	384539, 380968	12.0	9.2	9.0	6.0
6-C-H033	Wilmslow Park Street, Wilmslow	385142, 381081	12.2	9.3	9.4	6.3
6-C-H034	Water Lane, Wilmslow	384235, 381113	12.8	9.7	9.2	6.2
6-C-H035	Macclesfield Road, Wilmslow	385111, 381129	12.2	9.3	9.4	6.3

Receptor	Description/Location	Ordnance survey coordinates	Background concentrations in 2025 (µg/m³)			
			NOx	NO_2	PM_{10}	$PM_{2.5}$
6-C-H036	Water Lane Wilmslow	384244, 381130	12.8	9.7	9.2	6.2
6-C-H037	Station Road, Wilmslow	384850, 381177	12.8	9.7	9.2	6.2
6-C-H038	Swan Street, Wilmslow	384829, 381181	12.8	9.7	9.2	6.2
6-C-H039	Bank Square, Wilmslow	384760, 381242	12.8	9.7	9.2	6.2
6-C-H040	Bollin Walk, Wilmslow	384942, 381379	12.8	9.7	9.2	6.2
6-C-H041	Church Street, Wilmslow	384786, 381381	12.8	9.7	9.2	6.2
6-C-H042	Dean Row Road, Wilmslow	387237, 381589	10.6	8.2	8.5	5.7
6-C-H043	Pownall Court, Wilmslow	383270, 381652	11.9	9.1	9.1	6.1
6-C-H044	Wallworth Terrace, Wilmslow	383219, 381678	11.9	9.1	9.1	6.1
6-C-H045	Chapel Grange Montessori Nursery, Dean Row Road, Wilmslow	387142, 381707	10.6	8.2	8.5	5.7
6-C-H046	Connaught Close, Wilmslow	385432, 381721	12.2	9.3	9.4	6.3
6-C-H047	Styal Road, Wilmslow	384914, 381793	12.8	9.7	9.2	6.2
6-C-H048	Styal Road, Wilmslow	384917, 381822	12.8	9.7	9.2	6.2
6-C-H049	Altrincham Road, Wilmslow	383166, 381862	11.9	9.1	9.1	6.1
6-C-H050	Kingsbury Drive, Wilmslow	385589, 381883	12.2	9.3	9.4	6.3
6-C-H051	Styal Road, Wilmslow	384707, 381897	12.8	9.7	9.2	6.2
6-C-H052	Lancelyn Drive, Wilmslow	385888, 381919	12.2	9.3	9.4	6.3
6-C-H053	Manchester Road, Wilmslow	385024, 381932	12.2	9.3	9.4	6.3
6-C-H054	Cross Lane, Wilmslow	386926, 381940	11.4	8.8	8.8	5.9
6-C-H055	Styal Road, Wilmslow	384384, 381969	12.8	9.7	9.2	6.2
6-C-H056	Altrincham Road, Willmslow	383103, 381987	11.9	9.1	9.1	6.1
6-C-H057	Queensbury Close, Wilmslow	385816, 381988	12.2	9.3	9.4	6.3
6-C-H058	Heathfield Farm, Wilmslow	386574, 382048	13.1	10.0	9.3	6.2
6-C-H059	Woodcote View, Wilmslow	386779, 382050	13.1	10.0	9.3	6.2
6-C-H060	Tudor Green, Willmslow	386268, 382061	13.1	10.0	9.3	6.2
6-C-H061	Hunters Close Path, Willmslow	386625, 382066	13.1	10.0	9.3	6.2
6-C-H062	Wilmslow Road, Stockport	388053, 382103	10.5	8.1	8.5	5.7
6-C-H063	Wilmslow Road, Stockport	388277, 382233	10.5	8.1	8.5	5.7

Receptor	Description/Location	Ordnance survey coordinates	Background concentrations in 2025 (µg/m³)			
			NOx	NO_2	PM_{10}	$PM_{2.5}$
6-C-H064	Tatton Dale, Knutsford	374230, 382251	10.6	8.2	9.8	6.2
6-C-H065	Manchester Road, Wilmslow	385190, 382284	13.0	9.9	9.2	6.2
6-C-H066	Styal Road, Wilmslow	383894, 382331	11.5	8.8	8.9	5.9
6-C-H067	Stanneylands Road, Wilmslow	385261, 382483	13.0	9.9	9.2	6.2
6-C-H068	Chester Road, Stockport	389003, 382669	11.4	8.7	8.7	5.8
6-C-H069	Rostherne Drive, Rostherne	374836, 382723	10.6	8.2	9.8	6.2
6-C-H070	Chester Road, Stockport	389133, 382805	11.4	8.7	8.7	5.8
6-C-H071	Altrincham Road, Wilmslow	382012, 382901	12.7	9.7	9.4	6.0
6-C-H072	Styal Road, Wilmslow	384123, 382922	12.3	9.4	9.0	6.1
6-C-H073	Bucklow Hill, Mere	373133, 383244	11.8	9.1	10.1	6.4
6-C-H074	Mobberley Road, Ashley	377168, 383287	12.1	9.3	9.3	6.1
6-C-H075	Ashley Road, Ashley	375609, 383290	11.6	8.9	9.5	6.1
6-C-H076	Rostherne Lane, Rostherne	374395, 383338	11.3	8.7	9.9	6.3
6-C-H077	Chapel Lane, Bucklow Hill	372868, 383443	12.6	9.7	11.2	6.8
6-C-H078	Rostherne Lane, Rostherne	374352, 383475	11.3	8.7	9.9	6.3
6-C-H079	Hollin Lane, Styal, Wilmslow	383958, 383628	13.2	10.0	9.0	6.0
6-C-H080	Mill Lane, Ashley	380322, 383710	15.9	11.9	9.5	6.1
6-C-H081	Chapel Lane, Bucklow Hill	372410, 383775	12.6	9.7	11.2	6.8
6-C-H082	Mill Lane, Ashley	380023, 383798	15.9	11.9	9.5	6.1
6-C-H083	Millington Hall Lane, Millington	372941, 383835	12.6	9.7	11.2	6.8
6-C-H084	Back Lane, Ashley	378711, 383904	12.7	9.7	9.2	6.0
6-C-H085	Mobberley Road, Ashley	377600, 384015	17.5	13.1	11.6	7.2
6-C-H086	Back Lane, Ashley	379013, 384020	19.7	14.4	11.3	7.1
6-C-H087	Ashley Road, Ashley	376538, 384036	17.4	13.0	12.1	7.3
6-C-H088	Birkinheath Lane, Rostherne	375765, 384042	20.1	14.9	12.0	7.3
6-C-H089	Castle Mill Lane, Ashley	379134, 384111	19.7	14.4	11.3	7.1
6-C-H090	Hollin Lane, Styal, Wilmslow	383822, 384125	17.6	12.9	9.1	6.1
6-C-H091	Cherry Tree Lane, Rostherne	375240, 384127	20.1	14.9	12.0	7.3

Receptor	Description/Location	Ordnance survey coordinates	Background concentrations in 2025 (µg/m³)			
			NOx	NO_2	PM_{10}	$PM_{2.5}$
6-C-H092	Ashley Road, Ashley	377498, 384220	17.5	13.1	11.6	7.2
6-C-H093	Ashley Road, Ashley	377450, 384231	17.5	13.1	11.6	7.2
6-C-H094	Chester Road, Millington	373407, 384236	14.1	10.7	10.9	6.9
6-C-H095	Ashley Road, Ashley	377478, 384239	17.5	13.1	11.6	7.2
6-C-H096	Cow Lane, Ashley	377538, 384250	17.5	13.1	11.6	7.2
6-C-H097	Thowler Lane, Moston	372073, 384293	11.5	8.9	10.1	6.4
6-C-H098	Holly Lane, Styal, Wilmslow	383775, 384296	17.6	12.9	9.1	6.1
6-C-H099	Birkinheath Lane, Ashley	375495, 384345	20.1	14.9	12.0	7.3
6-C-H100	Millington Lane, Millington	373373, 384363	14.1	10.7	10.9	6.9
6-C-H101	Sunbank Lane, Manchester (Compound)	379907, 384410	15.0	11.3	11.3	7.1
6-C-H102	Millington Lane, Rostherne	373306, 384424	14.1	10.7	10.9	6.9
6-C-H103	Thowler Lane, Millington	372008, 384525	11.5	8.9	10.1	6.4
6-C-H104	Hollin Lane, Styal, Wilmslow	383843, 384542	17.6	12.9	9.1	6.1
6-C-H105	Tanyard Farm, Castle Mill Lane	378017, 384550	18.3	13.6	11.4	7.1
6-C-H106	Cherry Tree Lane, Rostherne	374649, 384608	13.3	10.2	9.9	6.4
6-C-H107	House near riding stables, Hale Barns	379319, 384657	15.0	11.3	11.3	7.1
6-C-H108	Wilmslow Road, Altrincham	380860, 384698	28.3	19.3	10.6	6.9
6-C-H109	Sunbank Lane, Manchester	380087, 384707	28.3	19.3	10.6	6.9
6-C-H110	Styal Road, Styal, Wilmslow	383829, 384803	17.6	12.9	9.1	6.1
6-C-H111	Chester Road, Millington	373765, 384816	14.1	10.7	10.9	6.9
6-C-H112	Warburton Drive, Altrincham (Compound)	379816, 384834	15.0	11.3	11.3	7.1
6-C-H113	Ryecroft Farm, Altrincham	375498, 384864	20.1	14.9	12.0	7.3
6-C-H114	Cherry Tree Lane, Rostherne	373885, 384894	14.1	10.7	10.9	6.9
6-C-H115	Styal Road, Wilmslow	383843, 384928	17.6	12.9	9.1	6.1
6-C-H116	Cherry Tree Lane, Rostherne	374008, 384929	13.3	10.2	9.9	6.4
6-C-H117	Coe Lane, Rostherne	373440, 385104	16.2	12.2	11.4	7.1
6-C-H118	Hale Barns, Altrincham (Compound)	380095, 385223	29.8	20.1	11.9	7.6

Receptor	Description/Location	Ordnance survey coordinates	Background concentrations in 2025 (µg/m³)			
			NOx	NO_2	PM_{10}	$PM_{2.5}$
6-C-H119	Hasty Lane, Hale Barns	380165, 385305	29.8	20.1	11.9	7.6
6-C-H120	Hasty Lane, Hale Barns	380118, 385406	29.8	20.1	11.9	7.6
6-C-H121	Reddy Lane, Millington	372565, 385463	15.0	11.4	11.2	7.0
6-C-H122	Hale Road, Hale Barns, Altrincham	379855, 385469	17.1	12.7	10.0	6.6
6-C-H123	Yarwoodheath Lane, Altrincham	374644, 385486	24.8	17.9	12.1	7.5
6-C-H124	Reddy Lane, Millington	372553, 385488	15.0	11.4	11.2	7.0
6-C-H125	Hasty Lane, Hale Barns	380579, 385500	29.8	20.1	11.9	7.6
6-C-H126	Elmridge Primary School, Wilton Drive, Hale Barns	379415, 385657	17.1	12.7	10.0	6.6
6-C-H127	Hale Road, Hale Barns, Altrincham	379537, 385663	17.1	12.7	10.0	6.6
6-C-H128	Reddy Lane, Millington	372628, 385698	15.0	11.4	11.2	7.0
6-C-H129	Hale Road, Hale Barns, Altrincham	379336, 385719	17.1	12.7	10.0	6.6
6-C-H130	Hale Road, Hale Barns, Altrincham	379299, 385773	17.1	12.7	10.0	6.6
6-C-H131	Abinger Road, Hale Barns	379130, 385913	17.1	12.7	10.0	6.6
6-C-H132	Abinger Road, Hale Barns	379146, 385925	17.1	12.7	10.0	6.6
6-C-H133	The Dell, Altrincham	377189, 385979	14.4	10.9	10.6	6.6
6-C-H134	Park Road, Altrincham	377541, 386032	15.1	11.4	10.1	6.7
6-C-H135	Hale, Altrincham	377574, 386034	15.1	11.4	10.1	6.7
6-C-H136	Shay Lane, Hale Barns	379076, 386057	15.7	11.7	9.7	6.4
6-C-H137	Thorley Lane, Manchester	381207, 386096	21.6	15.5	12.6	8.1
6-C-H138	Brooks Drive, Altrincham (Compound)	380248, 386104	17.8	13.1	11.9	7.6
6-C-H139	Ashley Road, Altrincham	377242, 386106	15.1	11.4	10.1	6.7
6-C-H140	Hale Road, Hale Barns, Altrincham	378981, 386133	14.5	10.9	9.9	6.6
6-C-H141	Wolf Grange, Altrincham	377237, 386134	15.1	11.4	10.1	6.7
6-C-H142	Park Road, Altrincham	377277, 386136	15.1	11.4	10.1	6.7
6-C-H143	Hale Road, Hale Barns, Altrincham	378793, 386150	14.5	10.9	9.9	6.6
6-C-H144	South Downs Road, Altrincham	377046, 386175	15.1	11.4	10.1	6.7
6-C-H145	Thorley Lane, Manchester	380861, 386204	17.8	13.1	11.9	7.6
6-C-H146	Park Road, Altrincham	377791, 386211	15.1	11.4	10.1	6.7

Receptor	Description/Location	Ordnance survey coordinates	Background concentrations in 2025 (µg/m³)			
			NOx	NO_2	PM_{10}	$PM_{2.5}$
6-C-H147	Broad Lane, Hale Barns	378728, 386247	14.5	10.9	9.9	6.6
6-C-H148	Broad Lane, Altrincham	378694, 386292	14.5	10.9	9.9	6.6
6-C-H149	Dunham Road, Bowdon, Altrincham	374735, 386414	12.9	9.8	10.5	6.6
6-C-H150	South Downs Road, Altrincham	376217, 386478	14.7	11.1	10.1	6.6
6-C-H151	Bowdon, Altrincham	376168, 386499	14.7	11.1	10.1	6.6
6-C-H152	Ashley Road, Altrincham	377359, 386501	15.1	11.4	10.1	6.7
6-C-H153	Bowdon, Altrincham	376491, 386502	14.7	11.1	10.1	6.6
6-C-H154	Hale, Altrincham	378570, 386505	14.5	10.9	9.9	6.6
6-C-H155	Hale Road, Hale Barns	378514, 386518	14.5	10.9	9.9	6.6
6-C-H156	Planetree Road, Altrincham	378315, 386574	14.5	10.9	9.9	6.6
6-C-H157	Bowdon, Altrincham	375997, 386590	14.0	10.6	9.9	6.5
6-C-H158	Hale Road, Altrincham	378396, 386640	14.5	10.9	9.9	6.6
6-C-H159	Langham Road, Altrincham	375827, 386676	14.0	10.6	9.9	6.5
6-C-H160	Ash Lane, Hale	379397, 387067	15.2	11.4	9.8	6.6
6-C-H161	Grove Lane, Timperley	379350, 387070	15.2	11.4	9.8	6.6
6-C-H162	Grove Lane, Hale	378567, 387071	15.1	11.4	10.1	6.8
6-C-H163	Bowdon, Altrincham	375162, 387072	13.6	10.4	9.9	6.5
6-C-H164	Delahays Road, Hale	378542, 387083	15.1	11.4	10.1	6.8
6-C-H165	Grove Lane, Timperley	378576, 387105	15.1	11.4	10.1	6.8
6-C-H166	Grove Lane, Timperley	378548, 387106	15.1	11.4	10.1	6.8
6-C-H167	Grove Lane, Hale, Altrincham	379182, 387167	15.2	11.4	9.8	6.6
6-C-H168	Grove Lane, Timperley	379215, 387195	15.2	11.4	9.8	6.6
6-C-H169	Grove Lane, Timperley	379166, 387196	15.2	11.4	9.8	6.6
6-C-H170	Shaftesbury Road, Altrincham	378321, 388355	15.8	11.9	10.8	7.3
6-C-H171	Shaftesbury Road, Altrincham	378311, 388393	15.8	11.9	10.8	7.3
6-C-H172	Cherry Tree Close, Altrincham	378810, 388429	15.8	11.9	10.8	7.3
6-C-H173	Shaftesbury Avenue, Timperley	378678, 388447	15.8	11.9	10.8	7.3
6-C-H174	Thorley Lane, Altrincham	379003, 388496	16.1	12.0	10.9	7.4

Receptor	Description/Location	Ordnance survey coordinates	Background concentrations in 2025 (µg/m³)			
			NOx	NO_2	PM_{10}	$PM_{2.5}$
6-C-H175	Shaftesbury Road, Altrincham	379277, 388759	16.1	12.0	10.9	7.4
6-C-H176	Sherway Drive, Timperley	379397, 388992	16.1	12.0	10.9	7.4
6-C-H177	Stockport Road, Altrincham	379490, 389256	16.1	12.0	11.0	7.4
6-C-H178	Sinderland Road, Altrincham	375918, 389836	13.9	10.5	10.8	7.1
6-C-H179	Manchester Road, Altrincham	376920, 389839	17.7	13.1	11.0	7.4
6-C-H180	Trafford College, Altrincham	376891, 389860	17.7	13.1	11.0	7.4
6-C-H181	Sinderland Road, Altrincham	375894, 389867	13.9	10.5	10.8	7.1
6-C-H182	Maynard Road, Altrincham	376329, 389875	17.7	13.1	11.0	7.4
6-C-H183	Sinderland Road, Altrincham	375682, 389896	13.9	10.5	10.8	7.1
6-C-H184	Badger Road, Altrincham	376442, 389924	17.7	13.1	11.0	7.4
6-C-H185	Huntsfill Road, Altrincham	376457, 389948	17.7	13.1	11.0	7.4
6-C-H186	Rosefinch Road, Altrincham	376148, 390016	14.6	11.0	10.8	7.2

Table 12: Modelled ecological receptor backgrounds, APIS data and critical loads (construction phase)

Receptor	Sensitive habitat	2025 NOx background concentration (µg/m³)	APIS data[3] of average total N deposition (kg N/ha/yr)	Critical load (kg N/ha/yr)
Rostherne Mere SSSI	Broadleaved deciduous woodland	13.3	39.3	20
	Neutral grassland	13.3 - 20.1	23.8	30
Rostherne Mere Ramsar	Broadleaved deciduous woodland	11.6 – 20.1	39.3	20
	Poor fen	13.3 - 14.1	23.8	10
Cotterill Clough SSSI	Broadleaved deciduous woodland	15.9	31.6 - 34.2	15

Assessment results

4.3.7 Table 13 presents the predicted NO_2 impacts across all assessed scenarios for each assessed receptor. All impacts are predicted to be negligible for PM_{10} and $PM_{2.5}$. Table 14, Table 15 and Table 16 provide the summary of the modelled pollutant concentrations for the assessed receptors. The magnitude of change and impact descriptor are also derived following the

[3] Air Pollution Information System. Available online at: http://www.apis.ac.uk/.

IAQM/Environmental Protection UK (EPUK) methodology[4]. Table 17 and Table 18 provide the summary of the assessment for the ecological receptors.

Table 13: Comparison of impact descriptors across construction scenarios

Receptor	Impact descriptors for annual mean NO_2 concentrations						
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7
6-C-H001	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H002	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H003	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H004	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H005	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H006	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H007	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H008	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H009	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H010	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H011	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H012	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H013	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H014	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H015	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H016	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H017	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H018	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable

[4] Institute of Air Quality Management (2017), *Land-Use Planning & Development Control: Planning For Air Quality.* Available online at: http://www.iaqm.co.uk/text/guidance/air-quality-planning-guidance.pdf.

Receptor	Impact descriptors for annual mean NO_2 concentrations						
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7
6-C-H019	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H020	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H021	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H022	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H023	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H024	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H025	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H026	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H027	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H028	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H029	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H030	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H031	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H032	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H033	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H034	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H035	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H036	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H037	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H038	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H039	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H040	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable

Receptor	Impact descriptors for annual mean NO_2 concentrations						
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7
6-C-H041	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H042	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H043	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H044	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H045	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H046	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H047	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H048	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H049	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H050	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H051	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H052	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H053	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H054	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H055	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H056	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H057	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H058	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H059	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H060	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H061	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H062	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable

Receptor	Impact descriptors for annual mean NO_2 concentrations						
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7
6-C-H063	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H064	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H065	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H066	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H067	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H068	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H069	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H070	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H071	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H072	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H073	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H074	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H075	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H076	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H077	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H078	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H079	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H080	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H081	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H082	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H083	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H084	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible

Receptor	Impact descriptors for annual mean NO_2 concentrations						
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7
6-C-H085	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H086	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H087	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H088	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H089	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H090	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H091	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H092	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H093	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H094	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H095	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Slight beneficial	Slight beneficial
6-C-H096	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H097	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H098	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H099	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H100	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H101	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H102	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H103	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H104	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H105	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H106	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible

Receptor	Impact descriptors for annual mean NO_2 concentrations						
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7
6-C-H107	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H108	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H109	Negligible	Slight adverse	Slight adverse	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H110	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H111	Not applicable	Not applicable	Not applicable	Negligible	Slight adverse	Slight adverse	Slight adverse
6-C-H112	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H113	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H114	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H115	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H116	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H117	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H118	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H119	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H120	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H121	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H122	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H123	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H124	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible
6-C-H125	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H126	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H127	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H128	Not applicable	Not applicable	Not applicable	Negligible	Negligible	Negligible	Negligible

Receptor	Impact descriptors for annual mean NO_2 concentrations						
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7
6-C-H129	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H130	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H131	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H132	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H133	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H134	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H135	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H136	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H137	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H138	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H139	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H140	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H141	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H142	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H143	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H144	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H145	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H146	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H147	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H148	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H149	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H150	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable

Receptor	Impact descriptors for annual mean NO_2 concentrations						
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7
6-C-H151	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H152	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H153	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H154	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H155	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H156	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H157	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H158	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H159	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H160	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H161	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H162	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H163	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H164	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H165	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H166	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H167	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H168	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H169	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H170	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H171	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H172	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable

Receptor	Impact descriptors for annual mean NO_2 concentrations						
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6	Scenario 7
6-C-H173	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H174	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H175	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H176	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H177	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H178	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H179	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H180	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H181	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H182	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H183	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H184	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H185	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable
6-C-H186	Negligible	Negligible	Negligible	Not applicable	Not applicable	Not applicable	Not applicable

Table 14: Predicted annual mean NO_2 concentrations and impacts (construction phase)

Receptor	Description/Location	NO_2 concentrations ($\mu g/m^3$)		Change in NO_2 concentrations ($\mu g/m^3$)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H001	London Road, Alderley Edge	19.8	19.9	0.1	Negligible	Not significant
6-C-H002	Alderley Edge School for Girls, Wilmslow Road, Alderley Edge	12.8	12.9	0.1	Negligible	Not significant
6-C-H003	Hurst Lea Court, Alderley Edge	16.0	16.4	0.4	Negligible	Not significant
6-C-H004	Brook Lane, Alderley Edge	12.2	12.6	0.4	Negligible	Not significant
6-C-H005	Brook Lane, Alderley Edge	10.9	11.3	0.4	Negligible	Not significant
6-C-H006	Brook Lane, Alderley Edge	11.8	12.3	0.5	Negligible	Not significant
6-C-H007	Mobberley Road, Knutsford	16.8	16.9	0.1	Negligible	Not significant
6-C-H008	Hall Lane, Mobberley	14.5	14.7	0.2	Negligible	Not significant
6-C-H009	Hall Lane, Knolls Green	11.7	11.8	0.1	Negligible	Not significant
6-C-H010	Mobberley, Knutsford	13.5	13.7	0.2	Negligible	Not significant
6-C-H011	Mobberley, Knutsford	15.7	16.0	0.3	Negligible	Not significant
6-C-H012	Tipping Brow, Mobberley	11.0	11.1	0.1	Negligible	Not significant
6-C-H013	Hough Lane, Wilmslow	8.2	8.4	0.2	Negligible	Not significant
6-C-H014	Hough Lane, Wilmslow	9.1	9.3	0.2	Negligible	Not significant
6-C-H015	Kingsley Lodge, Wilmslow	9.8	10.2	0.4	Negligible	Not significant
6-C-H016	Burnside Close, Wilmslow	13.2	13.7	0.5	Negligible	Not significant
6-C-H017	Prestbury Road, Wilmslow	9.7	10.1	0.4	Negligible	Not significant
6-C-H018	Avondale Rise, Wilmslow	10.5	11.0	0.5	Negligible	Not significant
6-C-H019	Burnside Close, Wilmslow	12.9	13.3	0.4	Negligible	Not significant
6-C-H020	Alderley Road, Wilmslow	14.6	14.4	-0.2	Negligible	Not significant
6-C-H021	Alderley Road, Wilmslow	13.4	13.6	0.2	Negligible	Not significant

Receptor	Description/Location	NO_2 concentrations (µg/m³)		Change in NO_2 concentrations (µg/m³)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H022	Hough Lane, WIlmslow	9.3	9.5	0.2	Negligible	Not significant
6-C-H023	Alderley Road, Wilmslow	13.1	13.4	0.3	Negligible	Not significant
6-C-H024	Alderley Road, Wilmslow	14.3	14.6	0.3	Negligible	Not significant
6-C-H025	Albert Road, Wilmslow	14.7	15.0	0.3	Negligible	Not significant
6-C-H026	Cygnet Court (Nursery), Hawthorn Street, Wilmslow	11.2	11.1	-0.1	Negligible	Not significant
6-C-H027	Queen Anne Court, Macclesfield Road, Wilmslow	12.0	12.3	0.3	Negligible	Not significant
6-C-H028	Alderley Road, Wilmslow	11.8	12.0	0.2	Negligible	Not significant
6-C-H029	The Hawthorns (Nursery), Hawthorn Street, Wilmslow	13.1	12.8	-0.3	Negligible	Not significant
6-C-H030	Lawdon Court, Beech Lane	17.8	17.1	-0.7	Negligible	Not significant
6-C-H031	Beech Lane, Wilmslow	15.4	14.9	-0.5	Negligible	Not significant
6-C-H032	Alderley Road, Wilmslow	15.0	15.5	0.5	Negligible	Not significant
6-C-H033	Wilmslow Park Street, Wilmslow	13.9	14.3	0.4	Negligible	Not significant
6-C-H034	Water Lane, Wilmslow	15.8	15.9	0.1	Negligible	Not significant
6-C-H035	Macclesfield Road, Wilmslow	13.4	13.7	0.3	Negligible	Not significant
6-C-H036	Water Lane Wilmslow	15.4	15.9	0.5	Negligible	Not significant
6-C-H037	Station Road, Wilmslow	17.7	18.0	0.3	Negligible	Not significant
6-C-H038	Swan Street, Wilmslow	19.3	19.9	0.6	Negligible	Not significant
6-C-H039	Bank Square, Wilmslow	11.9	12.5	0.6	Negligible	Not significant
6-C-H040	Bollin Walk, Wilmslow	18.7	18.8	0.1	Negligible	Not significant
6-C-H041	Church Street, Wilmslow	12.1	12.6	0.5	Negligible	Not significant

Receptor	Description/Location	NO_2 concentrations (µg/m³)		Change in NO_2 concentrations (µg/m³)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H042	Dean Row Road, Wilmslow	16.5	16.5	< 0.1	Negligible	Not significant
6-C-H043	Pownall Court, Wilmslow	12.2	12.1	-0.1	Negligible	Not significant
6-C-H044	Wallworth Terrace, Wilmslow	13.4	13.2	-0.2	Negligible	Not significant
6-C-H045	Chapel Grange Montessori Nursery, Dean Row Road, Wilmslow	15.4	15.3	-0.1	Negligible	Not significant
6-C-H046	Connaught Close, Wilmslow	12.6	12.7	0.1	Negligible	Not significant
6-C-H047	Styal Road, Wilmslow	15.2	15.3	0.1	Negligible	Not significant
6-C-H048	Styal Road, Wilmslow	14.9	15.2	0.3	Negligible	Not significant
6-C-H049	Altrincham Road, Wilmslow	17.4	17.2	-0.2	Negligible	Not significant
6-C-H050	Kingsbury Drive, Wilmslow	15.6	15.6	< 0.1	Negligible	Not significant
6-C-H051	Styal Road, Wilmslow	13.9	14.6	0.7	Negligible	Not significant
6-C-H052	Lancelyn Drive, Wilmslow	12.1	12.1	< 0.1	Negligible	Not significant
6-C-H053	Manchester Road, Wilmslow	11.5	11.6	0.1	Negligible	Not significant
6-C-H054	Cross Lane, Wilmslow	13.0	13.0	< 0.1	Negligible	Not significant
6-C-H055	Styal Road, Wilmslow	12.2	12.6	0.4	Negligible	Not significant
6-C-H056	Altrincham Road, Willmslow	14.7	14.6	-0.1	Negligible	Not significant
6-C-H057	Queensbury Close, Wilmslow	15.4	15.4	< 0.1	Negligible	Not significant
6-C-H058	Heathfield Farm, Wilmslow	12.7	12.7	< 0.1	Negligible	Not significant
6-C-H059	Woodcote View, Wilmslow	14.3	14.2	-0.1	Negligible	Not significant
6-C-H060	Tudor Green, Willmslow	14.2	14.1	-0.1	Negligible	Not significant
6-C-H061	Hunters Close Path, Willmslow	14.0	13.9	-0.1	Negligible	Not significant
6-C-H062	Wilmslow Road, Stockport	9.6	9.9	0.3	Negligible	Not significant
6-C-H063	Wilmslow Road, Stockport	11.1	11.8	0.7	Negligible	Not significant

Receptor	Description/Location	NO_2 concentrations ($\mu g/m^3$)		Change in NO_2 concentrations ($\mu g/m^3$)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H064	Tatton Dale, Knutsford	9.5	9.9	0.4	Negligible	Not significant
6-C-H065	Manchester Road, Wilmslow	11.4	11.6	0.2	Negligible	Not significant
6-C-H066	Styal Road, Wilmslow	10.3	10.6	0.3	Negligible	Not significant
6-C-H067	Stanneylands Road, Wilmslow	13.3	13.8	0.5	Negligible	Not significant
6-C-H068	Chester Road, Stockport	10.2	10.4	0.2	Negligible	Not significant
6-C-H069	Rostherne Drive, Rostherne	9.4	9.6	0.2	Negligible	Not significant
6-C-H070	Chester Road, Stockport	10.8	11.1	0.3	Negligible	Not significant
6-C-H071	Altrincham Road, Wilmslow	16.2	16.1	-0.1	Negligible	Not significant
6-C-H072	Styal Road, Wilmslow	11.1	11.5	0.4	Negligible	Not significant
6-C-H073	Bucklow Hill, Mere	11.7	11.8	0.1	Negligible	Not significant
6-C-H074	Mobberley Road, Ashley	14.8	15.0	0.2	Negligible	Not significant
6-C-H075	Ashley Road, Ashley	10.8	11.0	0.2	Negligible	Not significant
6-C-H076	Rostherne Lane, Rostherne	9.1	9.4	0.3	Negligible	Not significant
6-C-H077	Chapel Lane, Bucklow Hill	11.8	12.1	0.3	Negligible	Not significant
6-C-H078	Rostherne Lane, Rostherne	9.1	9.6	0.5	Negligible	Not significant
6-C-H079	Hollin Lane, Styal, Wilmslow	13.5	14.1	0.6	Negligible	Not significant
6-C-H080	Mill Lane, Ashley	13.3	14.4	1.1	Negligible	Not significant
6-C-H081	Chapel Lane, Bucklow Hill	11.2	11.6	0.4	Negligible	Not significant
6-C-H082	Mill Lane, Ashley	14.6	16.7	2.1	Negligible	Not significant
6-C-H083	Millington Hall Lane, Millington	19.3	19.5	0.2	Negligible	Not significant
6-C-H084	Back Lane, Ashley	9.9	10.0	0.1	Negligible	Not significant
6-C-H085	Mobberley Road, Ashley	17.4	18.8	1.4	Negligible	Not significant
6-C-H086	Back Lane, Ashley	14.7	14.8	0.1	Negligible	Not significant

Receptor	Description/Location	NO_2 concentrations (µg/m³)		Change in NO_2 concentrations (µg/m³)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H087	Ashley Road, Ashley	14.3	14.5	0.2	Negligible	Not significant
6-C-H088	Birkinheath Lane, Rostherne	15.2	15.3	0.1	Negligible	Not significant
6-C-H089	Castle Mill Lane, Ashley	15.3	15.9	0.6	Negligible	Not significant
6-C-H090	Hollin Lane, Styal, Wilmslow	15.1	15.5	0.4	Negligible	Not significant
6-C-H091	Cherry Tree Lane, Rostherne	15.3	15.4	0.1	Negligible	Not significant
6-C-H092	Ashley Road, Ashley	16.5	16.9	0.4	Negligible	Not significant
6-C-H093	Ashley Road, Ashley	15.8	16.1	0.3	Negligible	Not significant
6-C-H094	Chester Road, Millington	17.9	18.6	0.7	Negligible	Not significant
6-C-H095	Ashley Road, Ashley	17.7	18.2	0.5	Negligible	Not significant
6-C-H096	Cow Lane, Ashley	19.2	20.0	0.8	Negligible	Not significant
6-C-H097	Thowler Lane, Moston	9.8	9.9	0.1	Negligible	Not significant
6-C-H098	Holly Lane, Styal, Wilmslow	15.3	15.7	0.4	Negligible	Not significant
6-C-H099	Birkinheath Lane, Ashley	15.2	15.3	0.1	Negligible	Not significant
6-C-H100	Millington Lane, Millington	20.0	20.7	0.7	Negligible	Not significant
6-C-H101	Sunbank Lane, Manchester (Compound)	12.3	12.5	0.2	Negligible	Not significant
6-C-H102	Millington Lane, Rostherne	15.2	15.7	0.5	Negligible	Not significant
6-C-H103	Thowler Lane, Millington	10.1	10.2	0.1	Negligible	Not significant
6-C-H104	Hollin Lane, Styal, Wilmslow	14.4	14.7	0.3	Negligible	Not significant
6-C-H105	Tanyard Farm, Castle Mill Lane	18.3	17.5	-0.8	Negligible	Not significant
6-C-H106	Cherry Tree Lane, Rostherne	10.8	10.9	0.1	Negligible	Not significant
6-C-H107	House near riding stables, Hale Barns	16.9	16.0	-0.9	Negligible	Not significant
6-C-H108	Wilmslow Road, Altrincham	21.0	21.1	0.1	Negligible	Not significant

Receptor	Description/Location	NO_2 concentrations (µg/m³)		Change in NO_2 concentrations (µg/m³)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H109	Sunbank Lane, Manchester	24.7	28.4	3.7	Slight adverse	Not significant
6-C-H110	Styal Road, Styal, Wilmslow	15.4	15.7	0.3	Negligible	Not significant
6-C-H111	Chester Road, Millington	33.3	34.4	1.1	Slight adverse	Not significant
6-C-H112	Warburton Drive, Altrincham (Compound)	15.5	15.3	-0.2	Negligible	Not significant
6-C-H113	Ryecroft Farm, Altrincham	18.4	18.5	0.1	Negligible	Not significant
6-C-H114	Cherry Tree Lane, Rostherne	16.7	17.1	0.4	Negligible	Not significant
6-C-H115	Styal Road, Wilmslow	16.1	16.3	0.2	Negligible	Not significant
6-C-H116	Cherry Tree Lane, Rostherne	12.8	13.0	0.2	Negligible	Not significant
6-C-H117	Coe Lane, Rostherne	14.2	14.4	0.2	Negligible	Not significant
6-C-H118	Hale Barns, Altrincham (Compound)	23.5	23.8	0.3	Negligible	Not significant
6-C-H119	Hasty Lane, Hale Barns	25.1	24.7	-0.4	Negligible	Not significant
6-C-H120	Hasty Lane, Hale Barns	25.4	26.1	0.7	Negligible	Not significant
6-C-H121	Reddy Lane, Millington	18.0	18.1	0.1	Negligible	Not significant
6-C-H122	Hale Road, Hale Barns	16.6	16.6	< 0.1	Negligible	Not significant
6-C-H123	Yarwoodheath Lane, Altrincham	18.8	18.9	0.1	Negligible	Not significant
6-C-H124	Reddy Lane, Millington	17.2	17.8	0.6	Negligible	Not significant
6-C-H125	Hasty Lane, Hale Barns	28.5	29.0	0.5	Negligible	Not significant
6-C-H126	Elmridge Primary School, Wilton Drive, Hale Barns	14.3	14.2	-0.1	Negligible	Not significant
6-C-H127	Hale Road, Hale Barns, Altrincham	19.9	19.6	-0.3	Negligible	Not significant
6-C-H128	Reddy Lane, Millington	13.8	14.3	0.5	Negligible	Not significant
6-C-H129	Hale Road, Hale Barns, Altrincham	16.0	15.9	-0.1	Negligible	Not significant

Receptor	Description/Location	NO_2 concentrations ($\mu g/m^3$)		Change in NO_2 concentrations ($\mu g/m^3$)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H130	Hale Road, Hale Barns, Altrincham	19.0	18.7	-0.3	Negligible	Not significant
6-C-H131	Abinger Road, Hale Barns	17.8	17.6	-0.2	Negligible	Not significant
6-C-H132	Abinger Road, Hale Barns	19.8	19.6	-0.2	Negligible	Not significant
6-C-H133	The Dell, Altrincham	12.5	12.8	0.3	Negligible	Not significant
6-C-H134	Park Road, Altrincham	14.4	14.9	0.5	Negligible	Not significant
6-C-H135	Hale, Altrincham	13.5	13.9	0.4	Negligible	Not significant
6-C-H136	Shay Lane, Hale Barns	16.9	16.9	< 0.1	Negligible	Not significant
6-C-H137	Thorley Lane, Manchester	22.8	23.0	0.2	Negligible	Not significant
6-C-H138	Brooks Drive, Altrincham (Compound)	14.9	15.0	0.1	Negligible	Not significant
6-C-H139	Ashley Road, Altrincham	14.3	14.7	0.4	Negligible	Not significant
6-C-H140	Hale Road, Hale Barns, Altrincham	14.1	13.9	-0.2	Negligible	Not significant
6-C-H141	Wolf Grange, Altrincham	16.9	17.7	0.8	Negligible	Not significant
6-C-H142	Park Road, Altrincham	16.0	16.7	0.7	Negligible	Not significant
6-C-H143	Hale Road, Hale Barns, Altrincham	12.4	12.3	-0.1	Negligible	Not significant
6-C-H144	South Downs Road, Altrincham	14.2	14.8	0.6	Negligible	Not significant
6-C-H145	Thorley Lane, Manchester	21.6	21.8	0.2	Negligible	Not significant
6-C-H146	Park Road, Altrincham	13.1	13.3	0.2	Negligible	Not significant
6-C-H147	Broad Lane, Hale Barns	14.1	14.0	-0.1	Negligible	Not significant
6-C-H148	Broad Lane, Altrincham	14.0	13.9	-0.1	Negligible	Not significant
6-C-H149	Dunham Road, Bowdon, Altrincham	15.2	15.4	0.2	Negligible	Not significant
6-C-H150	South Downs Road, Altrincham	12.5	12.7	0.2	Negligible	Not significant
6-C-H151	Bowdon, Altrincham	13.1	13.4	0.3	Negligible	Not significant
6-C-H152	Ashley Road, Altrincham	13.2	13.5	0.3	Negligible	Not significant

Receptor	Description/Location	NO_2 concentrations (µg/m³)		Change in NO_2 concentrations (µg/m³)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H153	Bowdon, Altrincham	14.0	14.5	0.5	Negligible	Not significant
6-C-H154	Hale, Altrincham	14.4	14.3	-0.1	Negligible	Not significant
6-C-H155	Hale Road, Hale Barns	13.9	13.8	-0.1	Negligible	Not significant
6-C-H156	Planetree Road, Altrincham	13.5	13.7	0.2	Negligible	Not significant
6-C-H157	Bowdon, Altrincham	16.1	16.9	0.8	Negligible	Not significant
6-C-H158	Hale Road, Altrincham	14.8	14.9	0.1	Negligible	Not significant
6-C-H159	Langham Road, Altrincham	14.1	14.4	0.3	Negligible	Not significant
6-C-H160	Ash Lane, Hale	14.3	14.5	0.2	Negligible	Not significant
6-C-H161	Grove Lane, Timperley	13.8	13.9	0.1	Negligible	Not significant
6-C-H162	Grove Lane, Hale	17.5	17.8	0.3	Negligible	Not significant
6-C-H163	Bowdon, Altrincham	14.5	14.8	0.3	Negligible	Not significant
6-C-H164	Delahays Road, Hale	17.4	17.7	0.3	Negligible	Not significant
6-C-H165	Grove Lane, Timperley	17.7	18.0	0.3	Negligible	Not significant
6-C-H166	Grove Lane, Timperley	20.3	20.6	0.3	Negligible	Not significant
6-C-H167	Grove Lane, Hale, Altrincham	13.3	13.4	0.1	Negligible	Not significant
6-C-H168	Grove Lane, Timperley	14.5	14.7	0.2	Negligible	Not significant
6-C-H169	Grove Lane, Timperley	13.9	14.1	0.2	Negligible	Not significant
6-C-H170	Shaftesbury Road, Altrincham	13.5	13.6	0.1	Negligible	Not significant
6-C-H171	Shaftesbury Road, Altrincham	14.6	14.8	0.2	Negligible	Not significant
6-C-H172	Cherry Tree Close, Altrincham	13.5	13.6	0.1	Negligible	Not significant
6-C-H173	Shaftesbury Avenue, Timperley	14.3	14.5	0.2	Negligible	Not significant
6-C-H174	Thorley Lane, Altrincham	18.4	18.7	0.3	Negligible	Not significant
6-C-H175	Shaftesbury Road, Altrincham	15.9	16.2	0.3	Negligible	Not significant

Receptor	Description/Location	NO_2 concentrations (µg/m³)		Change in NO_2 concentrations (µg/m³)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H176	Sherway Drive, Timperley	15.4	15.6	0.2	Negligible	Not significant
6-C-H177	Stockport Road, Altrincham	20.5	20.8	0.3	Negligible	Not significant
6-C-H178	Sinderland Road, Altrincham	11.8	11.9	0.1	Negligible	Not significant
6-C-H179	Manchester Road, Altrincham	18.4	18.6	0.2	Negligible	Not significant
6-C-H180	Trafford College, Altrincham	20.8	21.1	0.3	Negligible	Not significant
6-C-H181	Sinderland Road, Altrincham	13.3	13.8	0.5	Negligible	Not significant
6-C-H182	Maynard Road, Altrincham	14.6	15.0	0.4	Negligible	Not significant
6-C-H183	Sinderland Road, Altrincham	13.5	13.9	0.4	Negligible	Not significant
6-C-H184	Badger Road, Altrincham	14.2	14.5	0.3	Negligible	Not significant
6-C-H185	Huntsfill Road, Altrincham	14.7	15.1	0.4	Negligible	Not significant
6-C-H186	Rosefinch Road, Altrincham	12.1	12.4	0.3	Negligible	Not significant

Table 15: Predicted annual mean PM_{10} concentrations and impacts (construction phase)

Receptor	Description/Location	PM_{10} concentrations (µg/m³)		Change in PM_{10} concentrations (µg/m³)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H001	London Road, Alderley Edge	10.8	10.8	< 0.1	Negligible	Not significant
6-C-H002	Alderley Edge School for Girls, Wilmslow Road, Alderley Edge	9.6	9.6	< 0.1	Negligible	Not significant
6-C-H003	Hurst Lea Court, Alderley Edge	10.4	10.5	0.1	Negligible	Not significant
6-C-H004	Brook Lane, Alderley Edge	9.6	9.7	0.1	Negligible	Not significant
6-C-H005	Brook Lane, Alderley Edge	9.5	9.6	0.1	Negligible	Not significant
6-C-H006	Brook Lane, Alderley Edge	9.7	9.8	0.1	Negligible	Not significant
6-C-H007	Mobberley Road, Knutsford	11.5	11.5	< 0.1	Negligible	Not significant

Receptor	Description/Location	PM_{10} concentrations ($\mu g/m^3$)		Change in PM_{10} concentrations ($\mu g/m^3$)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H008	Hall Lane, Mobberley	10.0	10.0	< 0.1	Negligible	Not significant
6-C-H009	Hall Lane, Knolls Green	9.5	9.5	< 0.1	Negligible	Not significant
6-C-H010	Mobberley, Knutsford	10.6	10.6	< 0.1	Negligible	Not significant
6-C-H011	Mobberley, Knutsford	11.0	11.0	< 0.1	Negligible	Not significant
6-C-H012	Tipping Brow, Mobberley	9.4	9.4	< 0.1	Negligible	Not significant
6-C-H013	Hough Lane, Wilmslow	8.6	8.6	< 0.1	Negligible	Not significant
6-C-H014	Hough Lane, Wilmslow	9.1	9.2	0.1	Negligible	Not significant
6-C-H015	Kingsley Lodge, Wilmslow	9.2	9.3	0.1	Negligible	Not significant
6-C-H016	Burnside Close, Wilmslow	10.0	10.1	0.1	Negligible	Not significant
6-C-H017	Prestbury Road, Wilmslow	9.2	9.3	0.1	Negligible	Not significant
6-C-H018	Avondale Rise, Wilmslow	9.4	9.5	0.1	Negligible	Not significant
6-C-H019	Burnside Close, Wilmslow	9.9	10.0	0.1	Negligible	Not significant
6-C-H020	Alderley Road, Wilmslow	10.1	10.0	-0.1	Negligible	Not significant
6-C-H021	Alderley Road, Wilmslow	9.8	9.9	0.1	Negligible	Not significant
6-C-H022	Hough Lane, WIlmslow	9.2	9.2	< 0.1	Negligible	Not significant
6-C-H023	Alderley Road, Wilmslow	9.8	9.9	0.1	Negligible	Not significant
6-C-H024	Alderley Road, Wilmslow	10.1	10.2	0.1	Negligible	Not significant
6-C-H025	Albert Road, Wilmslow	10.2	10.3	0.1	Negligible	Not significant
6-C-H026	Cygnet Court (Nursery), Hawthorn Street, Wilmslow	9.4	9.4	< 0.1	Negligible	Not significant
6-C-H027	Queen Anne Court, Macclesfield Road, Wilmslow	9.9	9.9	< 0.1	Negligible	Not significant
6-C-H028	Alderley Road, Wilmslow	9.5	9.6	0.1	Negligible	Not significant

Receptor	Description/Location	PM_{10} concentrations ($\mu g/m^3$)		Change in PM_{10} concentrations ($\mu g/m^3$)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H029	The Hawthorns (Nursery), Hawthorn Street, Wilmslow	9.9	9.8	-0.1	Negligible	Not significant
6-C-H030	Lawdon Court, Beech Lane	11.0	10.8	-0.2	Negligible	Not significant
6-C-H031	Beech Lane, Wilmslow	10.4	10.3	-0.1	Negligible	Not significant
6-C-H032	Alderley Road, Wilmslow	10.2	10.3	0.1	Negligible	Not significant
6-C-H033	Wilmslow Park Street, Wilmslow	10.6	10.7	0.1	Negligible	Not significant
6-C-H034	Water Lane, Wilmslow	10.6	10.6	< 0.1	Negligible	Not significant
6-C-H035	Macclesfield Road, Wilmslow	10.4	10.5	0.1	Negligible	Not significant
6-C-H036	Water Lane Wilmslow	10.5	10.6	0.1	Negligible	Not significant
6-C-H037	Station Road, Wilmslow	10.9	11.0	0.1	Negligible	Not significant
6-C-H038	Swan Street, Wilmslow	11.3	11.4	0.1	Negligible	Not significant
6-C-H039	Bank Square, Wilmslow	9.7	9.8	0.1	Negligible	Not significant
6-C-H040	Bollin Walk, Wilmslow	11.1	11.2	0.1	Negligible	Not significant
6-C-H041	Church Street, Wilmslow	9.7	9.8	0.1	Negligible	Not significant
6-C-H042	Dean Row Road, Wilmslow	10.3	10.3	< 0.1	Negligible	Not significant
6-C-H043	Pownall Court, Wilmslow	9.9	9.8	-0.1	Negligible	Not significant
6-C-H044	Wallworth Terrace, Wilmslow	10.2	10.1	-0.1	Negligible	Not significant
6-C-H045	Chapel Grange Montessori Nursery, Dean Row Road, Wilmslow	10.4	10.4	< 0.1	Negligible	Not significant
6-C-H046	Connaught Close, Wilmslow	10.2	10.2	< 0.1	Negligible	Not significant
6-C-H047	Styal Road, Wilmslow	10.6	10.6	< 0.1	Negligible	Not significant
6-C-H048	Styal Road, Wilmslow	10.5	10.5	< 0.1	Negligible	Not significant
6-C-H049	Altrincham Road, Wilmslow	11.1	11.0	-0.1	Negligible	Not significant

Receptor	Description/Location	PM_{10} concentrations ($\mu g/m^3$)		Change in PM_{10} concentrations ($\mu g/m^3$)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H050	Kingsbury Drive, Wilmslow	10.9	10.9	< 0.1	Negligible	Not significant
6-C-H051	Styal Road, Wilmslow	10.2	10.4	0.2	Negligible	Not significant
6-C-H052	Lancelyn Drive, Wilmslow	10.0	10.0	< 0.1	Negligible	Not significant
6-C-H053	Manchester Road, Wilmslow	9.9	9.9	< 0.1	Negligible	Not significant
6-C-H054	Cross Lane, Wilmslow	9.9	9.9	< 0.1	Negligible	Not significant
6-C-H055	Styal Road, Wilmslow	9.8	9.9	0.1	Negligible	Not significant
6-C-H056	Altrincham Road, Willmslow	10.1	10.1	< 0.1	Negligible	Not significant
6-C-H057	Queensbury Close, Wilmslow	10.7	10.7	< 0.1	Negligible	Not significant
6-C-H058	Heathfield Farm, Wilmslow	9.9	9.9	< 0.1	Negligible	Not significant
6-C-H059	Woodcote View, Wilmslow	10.3	10.2	-0.1	Negligible	Not significant
6-C-H060	Tudor Green, Willmslow	10.3	10.2	-0.1	Negligible	Not significant
6-C-H061	Hunters Close Path, Willmslow	10.2	10.2	< 0.1	Negligible	Not significant
6-C-H062	Wilmslow Road, Stockport	8.8	8.8	< 0.1	Negligible	Not significant
6-C-H063	Wilmslow Road, Stockport	9.0	9.1	0.1	Negligible	Not significant
6-C-H064	Tatton Dale, Knutsford	10.0	10.1	0.1	Negligible	Not significant
6-C-H065	Manchester Road, Wilmslow	9.6	9.7	0.1	Negligible	Not significant
6-C-H066	Styal Road, Wilmslow	9.2	9.3	0.1	Negligible	Not significant
6-C-H067	Stanneylands Road, Wilmslow	10.0	10.1	0.1	Negligible	Not significant
6-C-H068	Chester Road, Stockport	8.9	9.0	0.1	Negligible	Not significant
6-C-H069	Rostherne Drive, Rostherne	10.0	10.1	0.1	Negligible	Not significant
6-C-H070	Chester Road, Stockport	9.0	9.1	0.1	Negligible	Not significant
6-C-H071	Altrincham Road, Wilmslow	10.6	10.6	< 0.1	Negligible	Not significant

Receptor	Description/Location	PM_{10} concentrations (µg/m³)		Change in PM_{10} concentrations (µg/m³)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H072	Styal Road, Wilmslow	9.3	9.4	0.1	Negligible	Not significant
6-C-H073	Bucklow Hill, Mere	10.5	10.5	< 0.1	Negligible	Not significant
6-C-H074	Mobberley Road, Ashley	10.2	10.3	0.1	Negligible	Not significant
6-C-H075	Ashley Road, Ashley	9.8	9.9	0.1	Negligible	Not significant
6-C-H076	Rostherne Lane, Rostherne	10.0	10.0	< 0.1	Negligible	Not significant
6-C-H077	Chapel Lane, Bucklow Hill	11.5	11.6	0.1	Negligible	Not significant
6-C-H078	Rostherne Lane, Rostherne	10.0	10.1	0.1	Negligible	Not significant
6-C-H079	Hollin Lane, Styal, Wilmslow	9.6	9.7	0.1	Negligible	Not significant
6-C-H080	Mill Lane, Ashley	9.7	9.9	0.2	Negligible	Not significant
6-C-H081	Chapel Lane, Bucklow Hill	11.4	11.6	0.2	Negligible	Not significant
6-C-H082	Mill Lane, Ashley	9.9	10.3	0.4	Negligible	Not significant
6-C-H083	Millington Hall Lane, Millington	12.5	12.6	0.1	Negligible	Not significant
6-C-H084	Back Lane, Ashley	9.2	9.2	< 0.1	Negligible	Not significant
6-C-H085	Mobberley Road, Ashley	12.3	12.6	0.3	Negligible	Not significant
6-C-H086	Back Lane, Ashley	11.3	11.3	< 0.1	Negligible	Not significant
6-C-H087	Ashley Road, Ashley	12.3	12.4	0.1	Negligible	Not significant
6-C-H088	Birkinheath Lane, Rostherne	12.0	12.0	< 0.1	Negligible	Not significant
6-C-H089	Castle Mill Lane, Ashley	11.4	11.5	0.1	Negligible	Not significant
6-C-H090	Hollin Lane, Styal, Wilmslow	9.5	9.6	0.1	Negligible	Not significant
6-C-H091	Cherry Tree Lane, Rostherne	12.0	12.1	0.1	Negligible	Not significant
6-C-H092	Ashley Road, Ashley	12.2	12.2	< 0.1	Negligible	Not significant
6-C-H093	Ashley Road, Ashley	12.1	12.1	< 0.1	Negligible	Not significant

Receptor	Description/Location	PM_{10} concentrations ($\mu g/m^3$)		Change in PM_{10} concentrations ($\mu g/m^3$)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H094	Chester Road, Millington	11.9	12.1	0.2	Negligible	Not significant
6-C-H095	Ashley Road, Ashley	12.4	12.5	0.1	Negligible	Not significant
6-C-H096	Cow Lane, Ashley	12.6	12.8	0.2	Negligible	Not significant
6-C-H097	Thowler Lane, Moston	10.2	10.3	0.1	Negligible	Not significant
6-C-H098	Holly Lane, Styal, Wilmslow	9.5	9.6	0.1	Negligible	Not significant
6-C-H099	Birkinheath Lane, Ashley	12.0	12.0	< 0.1	Negligible	Not significant
6-C-H100	Millington Lane, Millington	12.2	12.4	0.2	Negligible	Not significant
6-C-H101	Sunbank Lane, Manchester (Compound)	11.4	11.5	0.1	Negligible	Not significant
6-C-H102	Millington Lane, Rostherne	11.5	11.7	0.2	Negligible	Not significant
6-C-H103	Thowler Lane, Millington	10.3	10.3	< 0.1	Negligible	Not significant
6-C-H104	Hollin Lane, Styal, Wilmslow	9.4	9.4	< 0.1	Negligible	Not significant
6-C-H105	Tanyard Farm, Castle Mill Lane	11.9	12.0	0.1	Negligible	Not significant
6-C-H106	Cherry Tree Lane, Rostherne	9.9	10.0	0.1	Negligible	Not significant
6-C-H107	House near riding stables, Hale Barns	11.9	12.0	0.1	Negligible	Not significant
6-C-H108	Wilmslow Road, Altrincham	10.9	10.9	< 0.1	Negligible	Not significant
6-C-H109	Sunbank Lane, Manchester	11.3	12.0	0.7	Negligible	Not significant
6-C-H110	Styal Road, Styal, Wilmslow	9.5	9.6	0.1	Negligible	Not significant
6-C-H111	Chester Road, Millington	14.3	14.7	0.4	Negligible	Not significant
6-C-H112	Warburton Drive, Altrincham (Compound)	11.8	11.8	< 0.1	Negligible	Not significant
6-C-H113	Ryecroft Farm, Altrincham	12.4	12.4	< 0.1	Negligible	Not significant
6-C-H114	Cherry Tree Lane, Rostherne	11.8	11.9	0.1	Negligible	Not significant

Receptor	Description/Location	PM_{10} concentrations ($\mu g/m^3$)		Change in PM_{10} concentrations ($\mu g/m^3$)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H115	Styal Road, Wilmslow	9.7	9.7	< 0.1	Negligible	Not significant
6-C-H116	Cherry Tree Lane, Rostherne	10.2	10.3	0.1	Negligible	Not significant
6-C-H117	Coe Lane, Rostherne	11.7	11.7	< 0.1	Negligible	Not significant
6-C-H118	Hale Barns, Altrincham (Compound)	12.4	12.4	< 0.1	Negligible	Not significant
6-C-H119	Hasty Lane, Hale Barns	12.8	12.7	-0.1	Negligible	Not significant
6-C-H120	Hasty Lane, Hale Barns	13.0	13.1	0.1	Negligible	Not significant
6-C-H121	Reddy Lane, Millington	12.3	12.3	< 0.1	Negligible	Not significant
6-C-H122	Hale Road, Hale Barns	10.8	10.8	< 0.1	Negligible	Not significant
6-C-H123	Yarwoodheath Lane, Altrincham	12.2	12.2	< 0.1	Negligible	Not significant
6-C-H124	Reddy Lane, Millington	12.1	12.2	0.1	Negligible	Not significant
6-C-H125	Hasty Lane, Hale Barns	13.3	13.4	0.1	Negligible	Not significant
6-C-H126	Elmridge Primary School, Wilton Drive, Hale Barns	10.3	10.3	< 0.1	Negligible	Not significant
6-C-H127	Hale Road, Hale Barns, Altrincham	11.6	11.5	-0.1	Negligible	Not significant
6-C-H128	Reddy Lane, Millington	11.6	11.7	0.1	Negligible	Not significant
6-C-H129	Hale Road, Hale Barns, Altrincham	10.7	10.6	-0.1	Negligible	Not significant
6-C-H130	Hale Road, Hale Barns, Altrincham	11.4	11.3	-0.1	Negligible	Not significant
6-C-H131	Abinger Road, Hale Barns	11.0	11.0	< 0.1	Negligible	Not significant
6-C-H132	Abinger Road, Hale Barns	11.5	11.4	-0.1	Negligible	Not significant
6-C-H133	The Dell, Altrincham	10.9	11.0	0.1	Negligible	Not significant
6-C-H134	Park Road, Altrincham	10.7	10.8	0.1	Negligible	Not significant
6-C-H135	Hale, Altrincham	10.6	10.6	< 0.1	Negligible	Not significant
6-C-H136	Shay Lane, Hale Barns	10.8	10.8	< 0.1	Negligible	Not significant

Receptor	Description/Location	PM_{10} concentrations ($\mu g/m^3$)		Change in PM_{10} concentrations ($\mu g/m^3$)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H137	Thorley Lane, Manchester	14.2	14.3	0.1	Negligible	Not significant
6-C-H138	Brooks Drive, Altrincham (Compound)	12.1	12.2	0.1	Negligible	Not significant
6-C-H139	Ashley Road, Altrincham	10.7	10.8	0.1	Negligible	Not significant
6-C-H140	Hale Road, Hale Barns, Altrincham	10.6	10.5	-0.1	Negligible	Not significant
6-C-H141	Wolf Grange, Altrincham	11.3	11.5	0.2	Negligible	Not significant
6-C-H142	Park Road, Altrincham	11.1	11.2	0.1	Negligible	Not significant
6-C-H143	Hale Road, Hale Barns, Altrincham	10.2	10.2	< 0.1	Negligible	Not significant
6-C-H144	South Downs Road, Altrincham	10.7	10.9	0.2	Negligible	Not significant
6-C-H145	Thorley Lane, Manchester	13.3	13.4	0.1	Negligible	Not significant
6-C-H146	Park Road, Altrincham	10.5	10.5	< 0.1	Negligible	Not significant
6-C-H147	Broad Lane, Hale Barns	10.6	10.6	< 0.1	Negligible	Not significant
6-C-H148	Broad Lane, Altrincham	10.6	10.5	-0.1	Negligible	Not significant
6-C-H149	Dunham Road, Bowdon, Altrincham	11.5	11.5	< 0.1	Negligible	Not significant
6-C-H150	South Downs Road, Altrincham	10.4	10.4	< 0.1	Negligible	Not significant
6-C-H151	Bowdon, Altrincham	10.5	10.6	0.1	Negligible	Not significant
6-C-H152	Ashley Road, Altrincham	10.5	10.6	0.1	Negligible	Not significant
6-C-H153	Bowdon, Altrincham	10.7	10.8	0.1	Negligible	Not significant
6-C-H154	Hale, Altrincham	10.7	10.6	-0.1	Negligible	Not significant
6-C-H155	Hale Road, Hale Barns	10.5	10.5	< 0.1	Negligible	Not significant
6-C-H156	Planetree Road, Altrincham	10.4	10.5	0.1	Negligible	Not significant
6-C-H157	Bowdon, Altrincham	11.2	11.4	0.2	Negligible	Not significant
6-C-H158	Hale Road, Altrincham	10.7	10.7	< 0.1	Negligible	Not significant

Receptor	Description/Location	PM_{10} concentrations ($\mu g/m^3$)		Change in PM_{10} concentrations ($\mu g/m^3$)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H159	Langham Road, Altrincham	10.7	10.8	0.1	Negligible	Not significant
6-C-H160	Ash Lane, Hale	10.5	10.5	< 0.1	Negligible	Not significant
6-C-H161	Grove Lane, Timperley	10.3	10.4	0.1	Negligible	Not significant
6-C-H162	Grove Lane, Hale	11.4	11.4	< 0.1	Negligible	Not significant
6-C-H163	Bowdon, Altrincham	10.7	10.7	< 0.1	Negligible	Not significant
6-C-H164	Delahays Road, Hale	11.3	11.4	0.1	Negligible	Not significant
6-C-H165	Grove Lane, Timperley	11.4	11.5	0.1	Negligible	Not significant
6-C-H166	Grove Lane, Timperley	12.0	12.0	< 0.1	Negligible	Not significant
6-C-H167	Grove Lane, Hale, Altrincham	10.2	10.3	0.1	Negligible	Not significant
6-C-H168	Grove Lane, Timperley	10.5	10.6	0.1	Negligible	Not significant
6-C-H169	Grove Lane, Timperley	10.4	10.4	< 0.1	Negligible	Not significant
6-C-H170	Shaftesbury Road, Altrincham	11.2	11.2	< 0.1	Negligible	Not significant
6-C-H171	Shaftesbury Road, Altrincham	11.5	11.5	< 0.1	Negligible	Not significant
6-C-H172	Cherry Tree Close, Altrincham	11.2	11.2	< 0.1	Negligible	Not significant
6-C-H173	Shaftesbury Avenue, Timperley	11.4	11.5	0.1	Negligible	Not significant
6-C-H174	Thorley Lane, Altrincham	12.4	12.5	0.1	Negligible	Not significant
6-C-H175	Shaftesbury Road, Altrincham	11.9	12.0	0.1	Negligible	Not significant
6-C-H176	Sherway Drive, Timperley	11.8	11.8	< 0.1	Negligible	Not significant
6-C-H177	Stockport Road, Altrincham	12.9	12.9	< 0.1	Negligible	Not significant
6-C-H178	Sinderland Road, Altrincham	11.1	11.1	< 0.1	Negligible	Not significant
6-C-H179	Manchester Road, Altrincham	12.2	12.2	< 0.1	Negligible	Not significant
6-C-H180	Trafford College, Altrincham	12.7	12.8	0.1	Negligible	Not significant

Receptor	Description/Location	PM_{10} concentrations (µg/m³)		Change in PM_{10} concentrations (µg/m³)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H181	Sinderland Road, Altrincham	11.4	11.5	0.1	Negligible	Not significant
6-C-H182	Maynard Road, Altrincham	11.4	11.5	0.1	Negligible	Not significant
6-C-H183	Sinderland Road, Altrincham	11.5	11.7	0.2	Negligible	Not significant
6-C-H184	Badger Road, Altrincham	11.3	11.3	< 0.1	Negligible	Not significant
6-C-H185	Huntsfill Road, Altrincham	11.4	11.5	0.1	Negligible	Not significant
6-C-H186	Rosefinch Road, Altrincham	11.0	11.1	0.1	Negligible	Not significant

Table 16: Predicted annual mean $PM_{2.5}$ concentrations and impacts (construction phase)

Receptor	Description/Location	$PM_{2.5}$ concentrations (µg/m³)		Change in $PM_{2.5}$ concentrations (µg/m³)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H001	London Road, Alderley Edge	7.0	7.1	0.1	Negligible	Not significant
6-C-H002	Alderley Edge School for Girls, Wilmslow Road, Alderley Edge	6.4	6.4	< 0.1	Negligible	Not significant
6-C-H003	Hurst Lea Court, Alderley Edge	6.8	6.9	0.1	Negligible	Not significant
6-C-H004	Brook Lane, Alderley Edge	6.3	6.4	0.1	Negligible	Not significant
6-C-H005	Brook Lane, Alderley Edge	6.3	6.3	< 0.1	Negligible	Not significant
6-C-H006	Brook Lane, Alderley Edge	6.4	6.5	0.1	Negligible	Not significant
6-C-H007	Mobberley Road, Knutsford	7.3	7.3	< 0.1	Negligible	Not significant
6-C-H008	Hall Lane, Mobberley	6.5	6.5	< 0.1	Negligible	Not significant
6-C-H009	Hall Lane, Knolls Green	6.2	6.2	< 0.1	Negligible	Not significant
6-C-H010	Mobberley, Knutsford	6.7	6.7	< 0.1	Negligible	Not significant
6-C-H011	Mobberley, Knutsford	6.9	6.9	< 0.1	Negligible	Not significant
6-C-H012	Tipping Brow, Mobberley	6.1	6.1	< 0.1	Negligible	Not significant

Receptor	Description/Location	$PM_{2.5}$ concentrations (µg/m³)		Change in $PM_{2.5}$ concentrations (µg/m³)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H013	Hough Lane, Wilmslow	5.7	5.7	< 0.1	Negligible	Not significant
6-C-H014	Hough Lane, Wilmslow	6.0	6.1	0.1	Negligible	Not significant
6-C-H015	Kingsley Lodge, Wilmslow	6.1	6.2	0.1	Negligible	Not significant
6-C-H016	Burnside Close, Wilmslow	6.5	6.6	0.1	Negligible	Not significant
6-C-H017	Prestbury Road, Wilmslow	6.1	6.2	0.1	Negligible	Not significant
6-C-H018	Avondale Rise, Wilmslow	6.2	6.3	0.1	Negligible	Not significant
6-C-H019	Burnside Close, Wilmslow	6.5	6.5	< 0.1	Negligible	Not significant
6-C-H020	Alderley Road, Wilmslow	6.7	6.6	-0.1	Negligible	Not significant
6-C-H021	Alderley Road, Wilmslow	6.5	6.6	0.1	Negligible	Not significant
6-C-H022	Hough Lane, WIlmslow	6.1	6.1	< 0.1	Negligible	Not significant
6-C-H023	Alderley Road, Wilmslow	6.5	6.5	< 0.1	Negligible	Not significant
6-C-H024	Alderley Road, Wilmslow	6.7	6.7	< 0.1	Negligible	Not significant
6-C-H025	Albert Road, Wilmslow	6.7	6.8	0.1	Negligible	Not significant
6-C-H026	Cygnet Court (Nursery), Hawthorn Street, Wilmslow	6.3	6.3	< 0.1	Negligible	Not significant
6-C-H027	Queen Anne Court, Macclesfield Road, Wilmslow	6.5	6.5	< 0.1	Negligible	Not significant
6-C-H028	Alderley Road, Wilmslow	6.4	6.4	< 0.1	Negligible	Not significant
6-C-H029	The Hawthorns (Nursery), Hawthorn Street, Wilmslow	6.5	6.5	< 0.1	Negligible	Not significant
6-C-H030	Lawdon Court, Beech Lane	7.2	7.1	-0.1	Negligible	Not significant
6-C-H031	Beech Lane, Wilmslow	6.8	6.8	< 0.1	Negligible	Not significant
6-C-H032	Alderley Road, Wilmslow	6.7	6.8	0.1	Negligible	Not significant

Receptor	Description/Location	$PM_{2.5}$ concentrations (µg/m³)		Change in $PM_{2.5}$ concentrations (µg/m³)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H033	Wilmslow Park Street, Wilmslow	6.9	7.0	0.1	Negligible	Not significant
6-C-H034	Water Lane, Wilmslow	7.0	7.0	< 0.1	Negligible	Not significant
6-C-H035	Macclesfield Road, Wilmslow	6.8	6.9	0.1	Negligible	Not significant
6-C-H036	Water Lane Wilmslow	6.9	7.0	0.1	Negligible	Not significant
6-C-H037	Station Road, Wilmslow	7.2	7.2	< 0.1	Negligible	Not significant
6-C-H038	Swan Street, Wilmslow	7.4	7.4	< 0.1	Negligible	Not significant
6-C-H039	Bank Square, Wilmslow	6.5	6.5	< 0.1	Negligible	Not significant
6-C-H040	Bollin Walk, Wilmslow	7.3	7.3	< 0.1	Negligible	Not significant
6-C-H041	Church Street, Wilmslow	6.5	6.5	< 0.1	Negligible	Not significant
6-C-H042	Dean Row Road, Wilmslow	6.7	6.7	< 0.1	Negligible	Not significant
6-C-H043	Pownall Court, Wilmslow	6.5	6.5	< 0.1	Negligible	Not significant
6-C-H044	Wallworth Terrace, Wilmslow	6.7	6.7	< 0.1	Negligible	Not significant
6-C-H045	Chapel Grange Montessori Nursery, Dean Row Road, Wilmslow	6.7	6.7	< 0.1	Negligible	Not significant
6-C-H046	Connaught Close, Wilmslow	6.7	6.7	< 0.1	Negligible	Not significant
6-C-H047	Styal Road, Wilmslow	7.0	7.0	< 0.1	Negligible	Not significant
6-C-H048	Styal Road, Wilmslow	6.9	6.9	< 0.1	Negligible	Not significant
6-C-H049	Altrincham Road, Wilmslow	7.2	7.2	< 0.1	Negligible	Not significant
6-C-H050	Kingsbury Drive, Wilmslow	7.1	7.1	< 0.1	Negligible	Not significant
6-C-H051	Styal Road, Wilmslow	6.8	6.8	< 0.1	Negligible	Not significant
6-C-H052	Lancelyn Drive, Wilmslow	6.6	6.6	< 0.1	Negligible	Not significant

Receptor	Description/Location	$PM_{2.5}$ concentrations (µg/m³)		Change in $PM_{2.5}$ concentrations (µg/m³)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H053	Manchester Road, Wilmslow	6.5	6.6	0.1	Negligible	Not significant
6-C-H054	Cross Lane, Wilmslow	6.5	6.5	< 0.1	Negligible	Not significant
6-C-H055	Styal Road, Wilmslow	6.5	6.6	0.1	Negligible	Not significant
6-C-H056	Altrincham Road, Willmslow	6.7	6.7	< 0.1	Negligible	Not significant
6-C-H057	Queensbury Close, Wilmslow	7.0	7.0	< 0.1	Negligible	Not significant
6-C-H058	Heathfield Farm, Wilmslow	6.6	6.6	< 0.1	Negligible	Not significant
6-C-H059	Woodcote View, Wilmslow	6.7	6.7	< 0.1	Negligible	Not significant
6-C-H060	Tudor Green, Willmslow	6.7	6.7	< 0.1	Negligible	Not significant
6-C-H061	Hunters Close Path, Willmslow	6.7	6.7	< 0.1	Negligible	Not significant
6-C-H062	Wilmslow Road, Stockport	5.9	5.9	< 0.1	Negligible	Not significant
6-C-H063	Wilmslow Road, Stockport	6.0	6.1	0.1	Negligible	Not significant
6-C-H064	Tatton Dale, Knutsford	6.3	6.4	0.1	Negligible	Not significant
6-C-H065	Manchester Road, Wilmslow	6.4	6.5	0.1	Negligible	Not significant
6-C-H066	Styal Road, Wilmslow	6.1	6.1	< 0.1	Negligible	Not significant
6-C-H067	Stanneylands Road, Wilmslow	6.7	6.7	< 0.1	Negligible	Not significant
6-C-H068	Chester Road, Stockport	6.0	6.0	< 0.1	Negligible	Not significant
6-C-H069	Rostherne Drive, Rostherne	6.3	6.3	< 0.1	Negligible	Not significant
6-C-H070	Chester Road, Stockport	6.0	6.1	0.1	Negligible	Not significant
6-C-H071	Altrincham Road, Wilmslow	6.8	6.8	< 0.1	Negligible	Not significant
6-C-H072	Styal Road, Wilmslow	6.3	6.3	< 0.1	Negligible	Not significant
6-C-H073	Bucklow Hill, Mere	6.6	6.6	< 0.1	Negligible	Not significant
6-C-H074	Mobberley Road, Ashley	6.6	6.6	< 0.1	Negligible	Not significant
6-C-H075	Ashley Road, Ashley	6.3	6.3	< 0.1	Negligible	Not significant

Receptor	Description/Location	$PM_{2.5}$ concentrations (µg/m³)		Change in $PM_{2.5}$ concentrations (µg/m³)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H076	Rostherne Lane, Rostherne	6.3	6.3	< 0.1	Negligible	Not significant
6-C-H077	Chapel Lane, Bucklow Hill	7.0	7.1	0.1	Negligible	Not significant
6-C-H078	Rostherne Lane, Rostherne	6.3	6.3	< 0.1	Negligible	Not significant
6-C-H079	Hollin Lane, Styal, Wilmslow	6.3	6.4	0.1	Negligible	Not significant
6-C-H080	Mill Lane, Ashley	6.3	6.4	0.1	Negligible	Not significant
6-C-H081	Chapel Lane, Bucklow Hill	7.0	7.1	0.1	Negligible	Not significant
6-C-H082	Mill Lane, Ashley	6.4	6.6	0.2	Negligible	Not significant
6-C-H083	Millington Hall Lane, Millington	7.6	7.7	0.1	Negligible	Not significant
6-C-H084	Back Lane, Ashley	6.0	6.0	< 0.1	Negligible	Not significant
6-C-H085	Mobberley Road, Ashley	7.6	7.7	0.1	Negligible	Not significant
6-C-H086	Back Lane, Ashley	7.1	7.1	< 0.1	Negligible	Not significant
6-C-H087	Ashley Road, Ashley	7.4	7.4	< 0.1	Negligible	Not significant
6-C-H088	Birkinheath Lane, Rostherne	7.4	7.4	< 0.1	Negligible	Not significant
6-C-H089	Castle Mill Lane, Ashley	7.2	7.2	< 0.1	Negligible	Not significant
6-C-H090	Hollin Lane, Styal, Wilmslow	6.3	6.4	0.1	Negligible	Not significant
6-C-H091	Cherry Tree Lane, Rostherne	7.4	7.4	< 0.1	Negligible	Not significant
6-C-H092	Ashley Road, Ashley	7.5	7.5	< 0.1	Negligible	Not significant
6-C-H093	Ashley Road, Ashley	7.4	7.5	0.1	Negligible	Not significant
6-C-H094	Chester Road, Millington	7.5	7.6	0.1	Negligible	Not significant
6-C-H095	Ashley Road, Ashley	7.6	7.7	0.1	Negligible	Not significant
6-C-H096	Cow Lane, Ashley	7.8	7.9	0.1	Negligible	Not significant
6-C-H097	Thowler Lane, Moston	6.5	6.5	< 0.1	Negligible	Not significant

Receptor	Description/Location	$PM_{2.5}$ concentrations (µg/m³)		Change in $PM_{2.5}$ concentrations (µg/m³)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H098	Holly Lane, Styal, Wilmslow	6.3	6.4	0.1	Negligible	Not significant
6-C-H099	Birkinheath Lane, Ashley	7.4	7.4	< 0.1	Negligible	Not significant
6-C-H100	Millington Lane, Millington	7.6	7.8	0.2	Negligible	Not significant
6-C-H101	Sunbank Lane, Manchester (Compound)	7.2	7.2	< 0.1	Negligible	Not significant
6-C-H102	Millington Lane, Rostherne	7.2	7.3	0.1	Negligible	Not significant
6-C-H103	Thowler Lane, Millington	6.5	6.5	< 0.1	Negligible	Not significant
6-C-H104	Hollin Lane, Styal, Wilmslow	6.2	6.3	0.1	Negligible	Not significant
6-C-H105	Tanyard Farm, Castle Mill Lane	7.5	7.5	< 0.1	Negligible	Not significant
6-C-H106	Cherry Tree Lane, Rostherne	6.4	6.5	0.1	Negligible	Not significant
6-C-H107	House near riding stables, Hale Barns	7.5	7.5	< 0.1	Negligible	Not significant
6-C-H108	Wilmslow Road, Altrincham	7.0	7.0	< 0.1	Negligible	Not significant
6-C-H109	Sunbank Lane, Manchester	7.3	7.7	0.4	Negligible	Not significant
6-C-H110	Styal Road, Styal, Wilmslow	6.4	6.4	< 0.1	Negligible	Not significant
6-C-H111	Chester Road, Millington	9.0	9.2	0.2	Negligible	Not significant
6-C-H112	Warburton Drive, Altrincham (Compound)	7.4	7.4	< 0.1	Negligible	Not significant
6-C-H113	Ryecroft Farm, Altrincham	7.6	7.6	< 0.1	Negligible	Not significant
6-C-H114	Cherry Tree Lane, Rostherne	7.4	7.4	< 0.1	Negligible	Not significant
6-C-H115	Styal Road, Wilmslow	6.4	6.5	0.1	Negligible	Not significant
6-C-H116	Cherry Tree Lane, Rostherne	6.6	6.6	< 0.1	Negligible	Not significant
6-C-H117	Coe Lane, Rostherne	7.3	7.3	< 0.1	Negligible	Not significant

Receptor	Description/Location	$PM_{2.5}$ concentrations (µg/m³)		Change in $PM_{2.5}$ concentrations (µg/m³)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H118	Hale Barns, Altrincham (Compound)	7.9	7.9	< 0.1	Negligible	Not significant
6-C-H119	Hasty Lane, Hale Barns	8.1	8.0	-0.1	Negligible	Not significant
6-C-H120	Hasty Lane, Hale Barns	8.2	8.3	0.1	Negligible	Not significant
6-C-H121	Reddy Lane, Millington	7.6	7.6	< 0.1	Negligible	Not significant
6-C-H122	Hale Road, Hale Barns	7.0	7.0	< 0.1	Negligible	Not significant
6-C-H123	Yarwoodheath Lane, Altrincham	7.6	7.6	< 0.1	Negligible	Not significant
6-C-H124	Reddy Lane, Millington	7.5	7.6	0.1	Negligible	Not significant
6-C-H125	Hasty Lane, Hale Barns	8.4	8.5	0.1	Negligible	Not significant
6-C-H126	Elmridge Primary School, Wilton Drive, Hale Barns	6.7	6.7	< 0.1	Negligible	Not significant
6-C-H127	Hale Road, Hale Barns, Altrincham	7.5	7.5	< 0.1	Negligible	Not significant
6-C-H128	Reddy Lane, Millington	7.2	7.2	< 0.1	Negligible	Not significant
6-C-H129	Hale Road, Hale Barns, Altrincham	7.0	7.0	< 0.1	Negligible	Not significant
6-C-H130	Hale Road, Hale Barns, Altrincham	7.4	7.3	-0.1	Negligible	Not significant
6-C-H131	Abinger Road, Hale Barns	7.2	7.2	< 0.1	Negligible	Not significant
6-C-H132	Abinger Road, Hale Barns	7.4	7.4	< 0.1	Negligible	Not significant
6-C-H133	The Dell, Altrincham	6.8	6.9	0.1	Negligible	Not significant
6-C-H134	Park Road, Altrincham	7.0	7.1	0.1	Negligible	Not significant
6-C-H135	Hale, Altrincham	6.9	7.0	0.1	Negligible	Not significant

Receptor	Description/Location	$PM_{2.5}$ concentrations (µg/m³)		Change in $PM_{2.5}$ concentrations (µg/m³)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H136	Shay Lane, Hale Barns	7.0	7.0	< 0.1	Negligible	Not significant
6-C-H137	Thorley Lane, Manchester	9.0	9.0	< 0.1	Negligible	Not significant
6-C-H138	Brooks Drive, Altrincham (Compound)	7.8	7.8	< 0.1	Negligible	Not significant
6-C-H139	Ashley Road, Altrincham	7.0	7.1	0.1	Negligible	Not significant
6-C-H140	Hale Road, Hale Barns, Altrincham	6.9	6.9	< 0.1	Negligible	Not significant
6-C-H141	Wolf Grange, Altrincham	7.3	7.4	0.1	Negligible	Not significant
6-C-H142	Park Road, Altrincham	7.2	7.3	0.1	Negligible	Not significant
6-C-H143	Hale Road, Hale Barns, Altrincham	6.7	6.7	< 0.1	Negligible	Not significant
6-C-H144	South Downs Road, Altrincham	7.0	7.1	0.1	Negligible	Not significant
6-C-H145	Thorley Lane, Manchester	8.4	8.5	0.1	Negligible	Not significant
6-C-H146	Park Road, Altrincham	6.9	6.9	< 0.1	Negligible	Not significant
6-C-H147	Broad Lane, Hale Barns	6.9	6.9	< 0.1	Negligible	Not significant
6-C-H148	Broad Lane, Altrincham	6.9	6.9	< 0.1	Negligible	Not significant
6-C-H149	Dunham Road, Bowdon, Altrincham	7.2	7.2	< 0.1	Negligible	Not significant
6-C-H150	South Downs Road, Altrincham	6.8	6.8	< 0.1	Negligible	Not significant
6-C-H151	Bowdon, Altrincham	6.9	6.9	< 0.1	Negligible	Not significant
6-C-H152	Ashley Road, Altrincham	6.9	6.9	< 0.1	Negligible	Not significant
6-C-H153	Bowdon, Altrincham	7.0	7.0	< 0.1	Negligible	Not significant

Receptor	Description/Location	$PM_{2.5}$ concentrations (µg/m³)		Change in $PM_{2.5}$ concentrations (µg/m³)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H154	Hale, Altrincham	7.0	7.0	< 0.1	Negligible	Not significant
6-C-H155	Hale Road, Hale Barns	6.9	6.9	< 0.1	Negligible	Not significant
6-C-H156	Planetree Road, Altrincham	6.9	6.9	< 0.1	Negligible	Not significant
6-C-H157	Bowdon, Altrincham	7.2	7.3	0.1	Negligible	Not significant
6-C-H158	Hale Road, Altrincham	7.0	7.0	< 0.1	Negligible	Not significant
6-C-H159	Langham Road, Altrincham	7.0	7.0	< 0.1	Negligible	Not significant
6-C-H160	Ash Lane, Hale	6.9	7.0	0.1	Negligible	Not significant
6-C-H161	Grove Lane, Timperley	6.9	6.9	< 0.1	Negligible	Not significant
6-C-H162	Grove Lane, Hale	7.5	7.5	< 0.1	Negligible	Not significant
6-C-H163	Bowdon, Altrincham	7.0	7.0	< 0.1	Negligible	Not significant
6-C-H164	Delahays Road, Hale	7.5	7.5	< 0.1	Negligible	Not significant
6-C-H165	Grove Lane, Timperley	7.5	7.5	< 0.1	Negligible	Not significant
6-C-H166	Grove Lane, Timperley	7.8	7.9	0.1	Negligible	Not significant
6-C-H167	Grove Lane, Hale, Altrincham	6.8	6.8	< 0.1	Negligible	Not significant
6-C-H168	Grove Lane, Timperley	7.0	7.0	< 0.1	Negligible	Not significant
6-C-H169	Grove Lane, Timperley	6.9	6.9	< 0.1	Negligible	Not significant
6-C-H170	Shaftesbury Road, Altrincham	7.5	7.5	< 0.1	Negligible	Not significant
6-C-H171	Shaftesbury Road, Altrincham	7.6	7.7	0.1	Negligible	Not significant
6-C-H172	Cherry Tree Close, Altrincham	7.5	7.5	< 0.1	Negligible	Not significant
6-C-H173	Shaftesbury Avenue, Timperley	7.6	7.6	< 0.1	Negligible	Not significant
6-C-H174	Thorley Lane, Altrincham	8.2	8.3	0.1	Negligible	Not significant
6-C-H175	Shaftesbury Road, Altrincham	8.0	8.0	< 0.1	Negligible	Not significant

Receptor	Description/Location	$PM_{2.5}$ concentrations (µg/m³)		Change in $PM_{2.5}$ concentrations (µg/m³)	Impact descriptor	Significance
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
6-C-H176	Sherway Drive, Timperley	7.9	7.9	< 0.1	Negligible	Not significant
6-C-H177	Stockport Road, Altrincham	8.5	8.5	< 0.1	Negligible	Not significant
6-C-H178	Sinderland Road, Altrincham	7.3	7.3	< 0.1	Negligible	Not significant
6-C-H179	Manchester Road, Altrincham	8.0	8.0	< 0.1	Negligible	Not significant
6-C-H180	Trafford College, Altrincham	8.3	8.3	< 0.1	Negligible	Not significant
6-C-H181	Sinderland Road, Altrincham	7.5	7.5	< 0.1	Negligible	Not significant
6-C-H182	Maynard Road, Altrincham	7.6	7.6	< 0.1	Negligible	Not significant
6-C-H183	Sinderland Road, Altrincham	7.5	7.6	0.1	Negligible	Not significant
6-C-H184	Badger Road, Altrincham	7.5	7.5	< 0.1	Negligible	Not significant
6-C-H185	Huntsfill Road, Altrincham	7.6	7.6	< 0.1	Negligible	Not significant
6-C-H186	Rosefinch Road, Altrincham	7.3	7.4	0.1	Negligible	Not significant

Table 17: Predicted annual mean of NOx concentrations at ecological sites (construction phase)

Ecological site	Distance to road (m)	NOx concentrations (µg/m³)		Change in NOx concentrations (µg/m³)	Comparison against air quality standard (30µg/m³)
		2025 without the Proposed Scheme	2025 with the Proposed Scheme		
Rostherne Mere SSSI transect 1	102m	11.6	11.7	0.1	Within standard
	150m	11.6	11.7	0.1	Within standard
	200m	11.6	11.6	< 0.1	Within standard
Rostherne Mere SSSI transect 2	0m	22.2	24.5	2.3	Within standard
	10m	21.6	23.0	1.4	Within standard
	20m	21.2	22.3	1.1	Within standard
	30m	20.8	21.7	0.9	Within standard

Ecological site	Distance to road (m)	NOx concentrations (µg/m³)		Change in NOx concentrations (µg/m³)	Comparison against air quality standard (30µg/m³)
		2025 without the Proposed Scheme	2025 with the Proposed Scheme		
	40m	20.5	21.3	0.8	Within standard
	50m	20.2	20.9	0.7	Within standard
	75m	19.7	20.2	0.5	Within standard
	100m	19.2	19.6	0.4	Within standard
	150m	18.5	18.8	0.3	Within standard
	200m	18.0	18.2	0.2	Within standard
Rostherne Mere SSSI transect 3	2m	29.2	30.8	1.6	Above standard
	10m	27.0	28.0	1.0	Within standard
	20m	25.0	25.8	0.8	Within standard
	30m	23.5	24.2	0.7	Within standard
	40m	22.5	23.0	0.5	Within standard
	50m	21.6	22.1	0.5	Within standard
	75m	20.1	20.5	0.4	Within standard
	100m	19.1	19.5	0.4	Within standard
	150m	17.9	18.2	0.3	Within standard
Rostherne Mere SSSI and Ramsar transect 3	200m	17.2	17.4	0.2	Within standard
Rostherne Mere SSSI transect 4	3m	41.4	44.0	2.6	Above standard
	10m	35.4	37.3	1.9	Above standard
	20m	30.3	31.7	1.4	Above standard
	30m	27.3	28.3	1.0	Within standard
	40m	25.3	26.1	0.8	Within standard
	50m	23.8	24.5	0.7	Within standard

Ecological site	Distance to road (m)	NOx concentrations (µg/m³)		Change in NOx concentrations (µg/m³)	Comparison against air quality standard (30µg/m³)
		2025 without the Proposed Scheme	2025 with the Proposed Scheme		
	75m	21.5	22.0	0.5	Within standard
	100m	20.1	20.5	0.4	Within standard
	150m	18.5	18.8	0.3	Within standard
Rostherne Mere SSSI and Ramsar transect 4	184m	17.9	18.1	0.2	Within standard
	200m	16.9	17.1	0.2	Within standard
Rostherne Mere SSSI transect 5	0m	17.5	17.8	0.3	Within standard
	10m	17.3	17.6	0.3	Within standard
	20m	17.2	17.4	0.2	Within standard
	30m	17.1	17.3	0.2	Within standard
	40m	17.0	17.2	0.2	Within standard
	50m	16.9	17.1	0.2	Within standard
Rostherne Mere SSSI and Ramsar transect 5	53m	16.9	17.1	0.2	Within standard
	75m	16.7	16.9	0.2	Within standard
	100m	16.5	16.7	0.2	Within standard
	150m	16.2	16.4	0.2	Within standard
	200m	16.0	16.1	0.1	Within standard
Rostherne Mere SSSI transect 6	0m	14.8	15.2	0.4	Within standard
	10m	14.8	15.0	0.2	Within standard
	20m	14.8	15.0	0.2	Within standard
	30m	14.8	14.9	0.1	Within standard
	40m	14.8	14.9	0.1	Within standard
	50m	14.8	14.9	0.1	Within standard
	75m	14.8	14.9	0.1	Within standard

Ecological site	Distance to road (m)	NOx concentrations (µg/m³)		Change in NOx concentrations (µg/m³)	Comparison against air quality standard (30µg/m³)
		2025 without the Proposed Scheme	2025 with the Proposed Scheme		
Rostherne Mere SSSI and Ramsar transect 6	86m	14.8	14.9	0.1	Within standard
	100m	14.8	14.9	0.1	Within standard
	150m	14.8	15.0	0.2	Within standard
	200m	14.9	15.0	0.1	Within standard
Rostherne Mere SSSI transect 7	0m	14.3	14.7	0.4	Within standard
	10m	14.3	14.4	0.1	Within standard
	20m	14.3	14.4	0.1	Within standard
	30m	14.2	14.3	0.1	Within standard
	40m	14.2	14.3	0.1	Within standard
	50m	14.2	14.3	0.1	Within standard
Rostherne Mere SSSI and Ramsar transect 7	72m	14.2	14.3	0.1	Within standard
	75m	14.2	14.3	0.1	Within standard
	100m	14.3	14.3	< 0.1	Within standard
	150m	14.3	14.3	< 0.1	Within standard
	200m	14.3	14.3	< 0.1	Within standard
Rostherne Mere SSSI transect 8	0m	20.9	21.3	0.4	Within standard
	10m	20.9	21.0	0.1	Within standard
	20m	20.9	21.0	0.1	Within standard
	30m	20.9	20.9	< 0.1	Within standard
	40m	20.8	20.9	0.1	Within standard
	50m	20.8	20.9	0.1	Within standard
	75m	20.8	20.9	0.1	Within standard
	100m	20.8	20.9	0.1	Within standard

Ecological site	Distance to road (m)	NOx concentrations (µg/m^3)		Change in NOx concentrations (µg/m^3)	Comparison against air quality standard (30µg/m^3)
		2025 without the Proposed Scheme	2025 with the Proposed Scheme		
	150m	20.8	20.9	0.1	Within standard
	200m	20.8	20.9	0.1	Within standard
Rostherne Mere SSSI and Ramsar transect 9	0m	20.9	21.3	0.4	Within standard
	10m	20.8	21.0	0.2	Within standard
	20m	20.8	20.9	0.1	Within standard
	30m	20.8	20.9	0.1	Within standard
	40m	20.8	20.9	0.1	Within standard
	50m	20.8	20.9	0.1	Within standard
	75m	12.3	12.3	< 0.1	Within standard
	100m	12.3	12.3	< 0.1	Within standard
	150m	12.3	12.3	< 0.1	Within standard
	200m	12.3	12.3	< 0.1	Within standard
Cotterill Clough SSSI transect 1	1m	22.3	27.2	4.9	Within standard
	10m	19.4	22.0	2.6	Within standard
	20m	18.2	20.0	1.8	Within standard
	30m	17.7	19.0	1.3	Within standard
	40m	17.4	18.4	1.0	Within standard
	50m	17.1	18.0	0.9	Within standard
	75m	16.8	17.4	0.6	Within standard
	100m	16.6	17.1	0.5	Within standard
	150m	16.5	16.8	0.3	Within standard
	200m	16.4	16.6	0.2	Within standard
Cotterill Clough SSSI transect 2	15m	22.4	22.8	0.4	Within standard

Ecological site	Distance to road (m)	NOx concentrations (µg/m^3)		Change in NOx concentrations (µg/m^3)	Comparison against air quality standard (30µg/m^3)
		2025 without the Proposed Scheme	2025 with the Proposed Scheme		
	20m	21.2	21.5	0.3	Within standard
	30m	19.8	20.0	0.2	Within standard
	40m	19.0	19.1	0.1	Within standard
	50m	18.5	18.6	0.1	Within standard
	75m	17.7	17.8	0.1	Within standard
	100m	17.3	17.4	0.1	Within standard
	150m	17.0	17.0	< 0.1	Within standard
	200m	16.8	16.8	< 0.1	Within standard
Cotterill Clough SSSI transect 3	3m	31.0	31.9	0.9	Above standard
	10m	24.7	25.2	0.5	Within standard
	20m	21.3	21.6	0.3	Within standard
	30m	19.8	20.0	0.2	Within standard
	40m	19.0	19.1	0.1	Within standard
	50m	18.4	18.5	0.1	Within standard
	75m	17.7	17.7	< 0.1	Within standard
	100m	17.3	17.3	< 0.1	Within standard
	150m	16.9	16.9	< 0.1	Within standard
	200m	16.7	16.7	< 0.1	Within standard

Table 18: Assessment of N deposition at ecological sites (construction phase)

Ecological site	Distance to road (m)	Dry deposition (kg N/ha/yr)		Change in N deposition (kg N/ha/yr)	Critical load (kg N/ha/yr)	Change in relation to lower critical load
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
Rostherne Mere SSSI and Ramsar transect 3	200m	39.8	39.9	0.1	20	0.2%
Rostherne Mere SSSI transect 4	3m	25.8	26.0	0.2	30	0.6%
	10m	25.4	25.6	0.2	30	0.5%
	20m	25.0	25.1	0.1	30	0.3%
	30m	24.8	24.9	<0.1	30	0.3%
	40m	24.7	24.7	<0.1	30	0.2%
Rostherne Mere SSSI and Ramsar transect 4	184m	24.1	24.1	<0.1	10	0.2%
	200m	24.1	24.1	<0.1	10	0.2%
Rostherne Mere SSSI transect 5	0m	24.1	24.2	<0.1	30	0.1%
	10m	24.1	24.1	<0.1	30	<0.1%
	20m	24.1	24.1	<0.1	30	<0.1%
	30m	24.1	24.1	<0.1	30	<0.1%
	40m	24.1	24.1	<0.1	30	<0.1%
	50m	24.1	24.1	<0.1	30	<0.1%
	53m	24.1	24.1	<0.1	10	0.2%
	75m	24.1	24.1	<0.1	10	0.2%
	100m	24.1	24.1	<0.1	10	0.2%
	150m	24.0	24.0	<0.1	10	0.2%
	200m	24.0	24.0	<0.1	10	0.2%
Rostherne Mere SSSI transect 6	0m	39.6	39.7	0.1	20	0.4%
	10m	23.9	23.9	<0.1	30	<0.1%

Ecological site	Distance to road (m)	Dry deposition (kg N/ha/yr)		Change in N deposition (kg N/ha/yr)	Critical load (kg N/ha/yr)	Change in relation to lower critical load
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
	20m	23.9	23.9	<0.1	30	<0.1%
	30m	23.9	23.9	<0.1	30	<0.1%
	40m	23.9	23.9	<0.1	30	<0.1%
	50m	23.9	23.9	<0.1	30	<0.1%
Rostherne Mere SSSI and Ramsar transect 6	75m	39.6	39.6	<0.1	20	0.2%
	86m	39.6	39.6	<0.1	20	0.1%
	100m	39.6	39.6	<0.1	20	0.1%
	150m	39.6	39.6	<0.1	20	0.1%
	200m	39.6	39.6	<0.1	20	0.1%
Rostherne Mere SSSI transect 7	0m	39.5	39.6	0.1	20	0.3%
	10m	23.9	23.9	<0.1	30	<0.1%
	20m	23.9	23.9	<0.1	30	<0.1%
	30m	23.9	23.9	<0.1	30	<0.1%
	40m	23.9	23.9	<0.1	30	<0.1%
	50m	23.9	23.9	<0.1	30	<0.1%
Rostherne Mere SSSI and Ramsar transect 7	72m	39.5	39.5	<0.1	20	<0.1%
	75m	39.5	39.5	<0.1	20	<0.1%
	100m	39.5	39.5	<0.1	20	<0.1%
	150m	39.5	39.5	<0.1	20	<0.1%
	200m	39.5	39.5	<0.1	20	<0.1%
Rostherne Mere SSSI transect 8	0m	23.9	23.9	<0.1	30	0.1%
	10m	23.9	23.9	<0.1	30	<0.1%
	20m	23.9	23.9	<0.1	30	<0.1%

Ecological site	Distance to road (m)	Dry deposition (kg N/ha/yr)		Change in N deposition (kg N/ha/yr)	Critical load (kg N/ha/yr)	Change in relation to lower critical load
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
	30m	23.9	23.9	<0.1	30	<0.1%
	40m	23.9	23.9	<0.1	30	<0.1%
	50m	23.9	23.9	<0.1	30	<0.1%
	75m	23.9	23.9	<0.1	30	<0.1%
	100m	23.9	23.9	<0.1	30	<0.1%
	150m	23.9	23.9	<0.1	30	<0.1%
	200m	23.9	23.9	<0.1	30	<0.1%
Rostherne Mere SSSI and Ramsar transect 9	0m	39.5	39.5	<0.1	20	0.3%
	10m	39.4	39.5	0.1	20	0.1%
	20m	39.4	39.5	0.1	20	0.1%
	30m	39.4	39.5	0.1	20	0.1%
	40m	39.4	39.5	0.1	20	<0.1%
	50m	39.4	39.5	0.1	20	<0.1%
	75m	39.4	39.5	0.1	20	<0.1%
	100m	39.4	39.5	0.1	20	<0.1%
	150m	39.4	39.5	0.1	20	<0.1%
	200m	39.4	39.5	0.1	20	<0.1%
Cotterill Clough SSSI transect 1	1m	35.1	35.9	0.8	15	5%
	10m	34.7	35.1	0.4	15	2.7%
	20m	34.5	34.8	0.3	15	1.8%
	30m	34.4	34.6	0.2	15	1.3%
	40m	34.4	34.5	0.1	15	1.1%
	50m	34.4	34.5	0.1	15	0.9%

Ecological site	Distance to road (m)	Dry deposition (kg N/ha/yr)		Change in N deposition (kg N/ha/yr)	Critical load (kg N/ha/yr)	Change in relation to lower critical load
		2025 without the Proposed Scheme	2025 with the Proposed Scheme			
	75m	34.3	34.4	0.1	15	0.6%
	100m	34.3	34.3	<0.1	15	0.5%
	150m	34.2	34.3	<0.1	15	0.3%
	200m	34.2	34.3	<0.1	15	0.3%
Cotterill Clough SSSI transect 2	15m	32.6	32.7	0.1	15	0.4%
	20m	32.5	32.5	<0.1	15	0.3%
	30m	32.2	32.3	<0.1	15	0.2%
	40m	32.1	32.1	<0.1	15	0.1%
	50m	32.0	32.1	0.1	15	<0.1%
	75m	31.9	31.9	<0.1	15	<0.1%
	100m	31.9	31.9	<0.1	15	<0.1%
	150m	31.8	31.8	<0.1	15	<0.1%
	200m	31.8	31.8	<0.1	15	<0.1%
Cotterill Clough SSSI transect 3	3m	33.9	34.1	0.2	15	0.9%
	10m	33.0	33.1	0.1	15	0.5%
	20m	32.5	32.5	<0.1	15	0.3%
	30m	32.2	32.3	<0.1	15	0.2%
	40m	32.1	32.1	<0.1	15	0.1%
	50m	32.0	32.0	<0.1	15	<0.1%
	75m	31.9	31.9	<0.1	15	<0.1%
	100m	31.9	31.9	<0.1	15	<0.1%
	150m	31.8	31.8	<0.1	15	<0.1%
	200m	31.8	31.8	<0.1	15	<0.1%

4.3.8 The annual mean concentrations of NO_2, PM_{10} and $PM_{2.5}$ are predicted to be within the air quality standards with and without construction of the Proposed Scheme. Since the annual mean NO_2 concentrations are predicted to be below 60µg/m^3, the hourly mean standard is also expected to be met. Similarly, since the annual mean PM_{10} concentrations are predicted to be below 35µg/m^3, the daily mean standard is also expected to be met.

4.3.9 Two slight adverse impacts are predicted for annual mean NO_2 concentrations on Sunbank Lane and adjacent to the A556 Chester Road. Negligible impacts are predicted at all remaining human receptors for annual mean NO_2 concentrations. Negligible impacts are predicted at all receptors in the area for PM_{10} and $PM_{2.5}$ concentrations.

4.3.10 NOx concentrations at the Cotterill Clough SSSI are predicted to be above the air quality standard, both without and with the Proposed Scheme, at one transect point at the eastern boundary of the western half of the designation, adjacent to the A538 Wilmslow Road. At all other transect points, the NOx concentrations at the Cotterill Clough SSSI are predicted to be within the air quality standard, both without and with the Proposed Scheme. The change in N deposition due to the Proposed Scheme is predicted to be greater than 1% of the lower critical load for this site at five transect points at the south-west boundary of the western half of the designation.

4.3.11 NOx concentrations at the Rostherne Mere SSSI are predicted to be above the air quality standard, both without and with the Proposed Scheme, at three transect points at the north-west boundary of Rostherne Mere SSSI, adjacent to A556 Chester Road. One transect point in this area is predicted to be within the air quality standard without the Proposed Scheme and above the air quality standard with the Proposed Scheme. The change in N deposition due to the Proposed Scheme is predicted to be less than 1% of the lower critical load for this site.

4.3.12 NOx concentrations at the Rostherne Mere SSSI and Ramsar are predicted to be within the air quality standard, both without and with the Proposed Scheme. The change in N deposition due to the Proposed Scheme is predicted to be less than 1% of the lower critical load for this site.

Assessment of significance

4.3.13 No significant effects are anticipated at any human receptor in relation to annual mean NO_2, PM_{10} and $PM_{2.5}$ concentrations.

4.3.14 Since the change in N deposition is predicted to be less than 1% of the lower critical load, no significant effects are predicted at the Rostherne Mere SSSI and Ramsar sites. Since the change in N deposition is predicted to be greater than 1% of the lower critical load, there is potential for significant effects at the Cotterill Clough SSSI.

4.4 Assessment of operational traffic emissions

Screening of traffic data

4.4.1 The screening process identified a total of 127 roads in the Hulseheath to Manchester Airport area exceeding the DMRB thresholds for changes in AADT or daily HDV flows and/or changes in road alignment by 5m or more. These roads include:

- the A556 Chester Road;
- Ashley Road;
- Mobberley Road;
- Mill Lane;
- Castle Mill Lane;
- the M56 junction 5 to junction 8; and
- the A538 Wilmslow Road/Hale Road.

4.4.2 Further roads have been included in the assessment to account for their emissions at nearby receptors.

Operational traffic model

4.4.3 Operational traffic data used in this assessment are detailed in BID (BID AQ-002-0MA06)[1]. For the assessment of traffic on the highway network, data for the year 2038 were used as the operational year of the Proposed Scheme.

Receptors assessed and background concentrations

4.4.4 Sensitive receptors have been selected from the OS AddressBase Premium database. The receptors consist of residential properties, schools and care homes within 200m of the screened in roads and represent worst-case exposure locations (Table 19). The location of all receptors is shown on accompanying map AQ-01-306.

4.4.5 Four designated ecological receptors were identified within 200m of the screened in roads within the Hulseheath to Manchester Airport area during operation of the Proposed Scheme. These ecological receptors are the Rostherne Mere SSSI, the Rostherne Mere Ramsar, Cotterill Clough SSSI and Lindow Common SSSI.

4.4.6 Details of the assessed receptors and the background concentrations used in the assessment are shown in Table 19 for human and Table 20 for ecological receptors.

Table 19: Modelled human receptors and background concentrations (operational phase)

Receptor	Description/Location	Ordnance survey coordinates	Background concentrations in 2038 (µg/m^3)			
			NOx	NO_2	PM_{10}	$PM_{2.5}$
6-O-H001	Alderley Edge School for Girls, Wilmslow Road, Alderley Edge	384216, 378757	10.9	8.4	8.8	5.9
6-O-H002	Hurst Lea Court, Alderley Edge	384230, 378807	10.9	8.4	8.8	5.9
6-O-H003	Brook Lane, Alderley Edge	384168, 378880	10.9	8.4	8.8	5.9
6-O-H004	Brook Lane, Alderley Edge	383293, 379212	9.7	7.5	8.9	5.9
6-O-H005	Brookside Terrace, Alderley Edge	383113, 379274	9.7	7.5	8.9	5.9
6-O-H006	Brook Lane, Alderley Edge	383178, 379297	9.7	7.5	8.9	5.9
6-O-H007	Knutsford Road, Alderley Edge	383102, 379300	9.7	7.5	8.9	5.9
6-O-H008	Hall Lane, Mobberley	379850, 379455	9.1	7.1	8.8	5.8
6-O-H009	Hall Lane, Knolls Green	379788, 379465	9.1	7.1	8.8	5.8
6-O-H010	Knutsford Road, Wilmslow	383292, 379646	9.7	7.5	8.9	5.9
6-O-H011	Tipping Brow, Mobberley	379107, 379740	9.1	7.1	8.8	5.8
6-O-H012	Ashford Road, Wilmslow	384261, 379740	10.4	8.0	9.0	6.0
6-O-H013	Knutsford Road, Wilmslow	383833, 380052	10.1	7.8	9.1	6.1
6-O-H014	Alderley Road, Wilmslow	384326, 380116	10.9	8.4	8.9	6.0
6-O-H015	Knutsford Road, Wilmslow	383962, 380170	10.1	7.8	9.1	6.1
6-O-H016	Alderley Road, Wilmslow	384287, 380276	10.9	8.4	8.9	6.0
6-O-H017	Alderley Lodge, Wilmslow	384223, 380430	10.9	8.4	8.9	6.0
6-O-H018	Alderley Road, Wilmslow	384299, 380438	10.9	8.4	8.9	6.0
6-O-H019	Alderley Road, Wilmslow	384375, 380660	10.9	8.4	8.9	6.0
6-O-H020	Alderley Road, Wilmslow	384376, 380707	10.9	8.4	8.9	6.0
6-O-H021	Albert Road, Wilmslow	384406, 380749	10.9	8.4	8.9	6.0
6-O-H022	Alderley Road, Wilmslow	384491, 380846	10.9	8.4	8.9	6.0
6-O-H023	Alderley Road, Wilmslow	384539, 380968	10.9	8.4	8.9	6.0
6-O-H024	Buckingham Road, Wilmslow	383787, 381125	10.7	8.2	9.0	6.0
6-O-H025	Altrincham Road, Wilmslow	384088, 381136	11.7	8.9	9.2	6.2
6-O-H026	Station Road, Wilmslow	384850, 381177	11.7	8.9	9.2	6.2
6-O-H027	Swan Street, Wilmslow	384829, 381181	11.7	8.9	9.2	6.2

Receptor	Description/Location	Ordnance survey coordinates	Background concentrations in 2038 (µg/m³)			
			NOx	NO_2	PM_{10}	$PM_{2.5}$
6-O-H028	Bank Square, Wilmslow	384760, 381242	11.7	8.9	9.2	6.2
6-O-H029	Gorsey Bank Primary School, Altrincham Road, Wilmslow	383562, 381311	10.7	8.2	9.0	6.0
6-O-H030	Bollin Walk, Wilmslow	384942, 381379	11.7	8.9	9.2	6.2
6-O-H031	Connaught Close, WIlmslow	385432, 381721	11.2	8.6	9.3	6.2
6-O-H032	Kingsbury Drive, Wilmslow	385589, 381883	11.2	8.6	9.3	6.2
6-O-H033	Lancelyn Drive, Wilmslow	385888, 381919	11.2	8.6	9.3	6.2
6-O-H034	Queensbury Close, Wilmslow	385816, 381988	11.2	8.6	9.3	6.2
6-O-H035	Tatton Dale, Knutsford	374230, 382251	9.3	7.3	9.7	6.1
6-O-H036	Mobberley Road, Ashley	377168, 383287	10.6	8.2	9.2	6.0
6-O-H037	Rostherne Lane, Rostherne	374395, 383338	9.8	7.6	9.9	6.2
6-O-H038	Rostherne Lane, Rostherne	374352, 383475	9.8	7.6	9.9	6.2
6-O-H039	Hollin Lane, Styal, Wilmslow	383958, 383628	12.1	9.2	8.9	5.9
6-O-H040	Millington Hall Lane, Millington	372941, 383835	10.7	8.3	11.1	6.8
6-O-H041	Mobberley Road, Ashley	377600, 384015	14.3	10.8	11.6	7.1
6-O-H042	Ashley Road, Ashley	376538, 384036	14.1	10.7	12.1	7.3
6-O-H043	Castle Mill Lane, Ashley	379120, 384122	16.4	12.2	11.2	7.1
6-O-H044	Hollin Lane, Styal, Wilmslow	383822, 384125	16.3	12.0	9.0	6.0
6-O-H045	Ashley Road, Ashley	377498, 384220	14.3	10.8	11.6	7.1
6-O-H046	Ashley Road, Ashley	377450, 384231	14.3	10.8	11.6	7.1
6-O-H047	Chester Road, Millington	373407, 384236	10.1	7.9	10.9	6.8
6-O-H048	Ashley Road, Ashley	377478, 384239	14.3	10.8	11.6	7.1
6-O-H049	Cow Lane, Ashley	377538, 384250	14.3	10.8	11.6	7.1
6-O-H050	Holly Lane, Styal, Wilmslow	383775, 384296	16.3	12.0	9.0	6.0
6-O-H051	Millington Lane, Millington	373373, 384363	10.1	7.9	10.9	6.8
6-O-H052	Thowler Lane, Millington	372008, 384525	10.0	7.7	10.0	6.3
6-O-H053	Hollin Lane, Styal, Wilmslow	383843, 384542	16.3	12.0	9.0	6.0
6-O-H054	Tanyard Farm, Castle Mill Lane	378017, 384550	15.1	11.3	11.3	7.1
6-O-H055	House near riding stables, Hale Barns	379319, 384657	16.4	12.2	11.2	7.1

Receptor	Description/Location	Ordnance survey coordinates	Background concentrations in 2038 (µg/m³)			
			NOx	NO_2	PM_{10}	$PM_{2.5}$
6-O-H056	Wilmslow Road, Altrincham	380860, 384698	27.6	18.9	10.6	6.8
6-O-H057	Sunbank Lane, Manchester	380087, 384707	27.6	18.9	10.6	6.8
6-O-H058	Styal Road, Styal, Wilmslow	383829, 384803	16.3	12.0	9.0	6.0
6-O-H059	Chester Road, Millington	373765, 384816	10.1	7.9	10.9	6.8
6-O-H060	Ryecroft Farm, Altrincham	375498, 384864	15.8	11.9	11.9	7.3
6-O-H061	Cherry Tree Lane, Rostherne	373885, 384894	10.1	7.9	10.9	6.8
6-O-H062	Hasty Lane, Hale Barns	380165, 385305	27.3	18.7	11.9	7.6
6-O-H063	Hasty Lane, Hale Barns	380118, 385406	27.3	18.7	11.9	7.6
6-O-H064	Reddy Lane, Millington	372565, 385463	12.3	9.5	11.2	6.9
6-O-H065	Hale Road, Hale Barns	379855, 385469	15.1	11.3	9.9	6.5
6-O-H066	Yarwoodheath Lane, Altrincham	374644, 385486	18.9	14.0	12.0	7.5
6-O-H067	Reddy Lane, Millington	372553, 385488	12.3	9.5	11.2	6.9
6-O-H068	Hasty Lane, Hale Barns	380579, 385500	27.3	18.7	11.9	7.6
6-O-H069	Elmridge Primary School, Wilton Drive, Hale Barns	379415, 385657	15.1	11.3	9.9	6.5
6-O-H070	Hale Road, Hale Barns, Altrincham	379537, 385663	15.1	11.3	9.9	6.5
6-O-H071	Reddy Lane, Millington	372628, 385698	12.3	9.5	11.2	6.9
6-O-H072	Hale Road, Hale Barns, Altrincham	379336, 385719	15.1	11.3	9.9	6.5
6-O-H073	Hale Road, Hale Barns, Altrincham	379299, 385773	15.1	11.3	9.9	6.5
6-O-H074	Abinger Road, Hale Barns	379130, 385913	15.1	11.3	9.9	6.5
6-O-H075	Abinger Road, Hale Barns	379146, 385925	15.1	11.3	9.9	6.5
6-O-H076	Shay Lane, Hale Barns	379076, 386057	13.8	10.4	9.6	6.4
6-O-H077	Thorley Lane, Manchester	381207, 386096	23.3	16.6	12.6	8.1
6-O-H078	Hale Road, Hale Barns, Altrincham	378981, 386133	12.8	9.8	9.8	6.5
6-O-H079	Hale Road, Hale Barns, Altrincham	378793, 386150	12.8	9.8	9.8	6.5
6-O-H080	Thorley Lane, Manchester	380861, 386205	15.8	11.8	11.9	7.6
6-O-H081	Broad Lane, Hale Barns	378728, 386247	12.8	9.8	9.8	6.5
6-O-H082	Dunham Road, Bowdon, Altrincham	374735, 386414	10.9	8.5	10.4	6.6
6-O-H083	Hale, Altrincham	378570, 386505	12.8	9.8	9.8	6.5

Receptor	Description/Location	Ordnance survey coordinates	Background concentrations in 2038 (µg/m³)			
			NOx	NO_2	PM_{10}	$PM_{2.5}$
6-O-H084	Hale Road, Hale Barns	378514, 386518	12.8	9.8	9.8	6.5
6-O-H085	Hale, Altrincham	378631, 387062	13.4	10.1	10.0	6.7
6-O-H086	Ash Lane, Hale	379397, 387067	13.4	10.2	9.8	6.6
6-O-H087	Grove Lane, Timperley	379350, 387070	13.4	10.2	9.8	6.6
6-O-H088	Grove Lane, Hale	378567, 387071	13.4	10.1	10.0	6.7
6-O-H089	Bowdon, Altrincham	375162, 387072	11.9	9.1	9.8	6.5
6-O-H090	Delahays Road, Hale	378542, 387083	13.4	10.1	10.0	6.7
6-O-H091	Grove Lane, Timperley	378576, 387105	13.4	10.1	10.0	6.7
6-O-H092	Grove Lane, Timperley	378548, 387106	13.4	10.1	10.0	6.7
6-O-H093	Dunham Road, Bowdon, Altrincham	375147, 387135	11.9	9.1	9.8	6.5
6-O-H094	Grove Lane, Hale, Altrincham	379182, 387167	13.4	10.2	9.8	6.6
6-O-H095	Grove Lane, Timperley	379215, 387195	13.4	10.2	9.8	6.6
6-O-H096	Grove Lane, Timperley	379166, 387196	13.4	10.2	9.8	6.6
6-O-H097	Clay Lane, Hale, Altrincham	379736, 387299	13.4	10.2	9.8	6.6
6-O-H098	Clay Lane, Hale, Altrincham	379748, 387331	13.4	10.2	9.8	6.6

Table 20: Modelled ecological receptor backgrounds, APIS data and critical loads (operational phase)

Receptor	Sensitive habitat	2038 NOx background concentration (µg/m³)	APIS data of average total N deposition (kg N/ha/yr)	Critical load (kg N/ha/yr)
Rostherne Mere SSSI	Neutral grassland	10.1	23.8	30
Rostherne Mere Ramsar	Broadleaved deciduous woodland	10.1	39.3	20
	Poor fen	10.1	23.8	10
Cotterill Clough SSSI	Broadleaved deciduous woodland	14.3	34.2	15
Lindow Common SSSI	Dwarf shrub heath (wet or dry heath)	10.7	21.3	10

Assessment results

4.4.7 Table 21, Table 22 and Table 23 provide the summary of the modelled pollutant concentrations for the assessed human receptors. The magnitude of change and impact

descriptor are also derived following the IAQM/EPUK methodology[4]. Table 24 and Table 25 provide the summary of the assessment for ecological receptors.

Table 21: Predicted annual mean NO_2 concentrations and impacts (operation phase)

Receptor	Description/Location	NO_2 concentrations ($\mu g/m^3$)		Change in NO_2 concentrations ($\mu g/m^3$)	Impact descriptor	Significance
		2038 without the Proposed Scheme	2038 with the Proposed Scheme			
6-O-H001	Alderley Edge School for Girls, Wilmslow Road, Alderley Edge	9.9	9.9	< 0.1	Negligible	Not significant
6-O-H002	Hurst Lea Court, Alderley Edge	11.5	11.7	0.2	Negligible	Not significant
6-O-H003	Brook Lane, Alderley Edge	9.8	10.0	0.2	Negligible	Not significant
6-O-H004	Brook Lane, Alderley Edge	8.9	9.1	0.2	Negligible	Not significant
6-O-H005	Brookside Terrace, Alderley Edge	8.5	8.6	0.1	Negligible	Not significant
6-O-H006	Brook Lane, Alderley Edge	9.4	9.6	0.2	Negligible	Not significant
6-O-H007	Knutsford Road, Alderley Edge	9.2	9.4	0.2	Negligible	Not significant
6-O-H008	Hall Lane, Mobberley	9.9	10.1	0.2	Negligible	Not significant
6-O-H009	Hall Lane, Knolls Green	8.7	8.8	0.1	Negligible	Not significant
6-O-H010	Knutsford Road, Wilmslow	8.3	8.4	0.1	Negligible	Not significant
6-O-H011	Tipping Brow, Mobberley	8.4	8.5	0.1	Negligible	Not significant
6-O-H012	Ashford Road, Wilmslow	9.3	9.2	-0.1	Negligible	Not significant
6-O-H013	Knutsford Road, Wilmslow	8.8	9.0	0.2	Negligible	Not significant
6-O-H014	Alderley Road, Wilmslow	9.7	9.6	-0.1	Negligible	Not significant
6-O-H015	Knutsford Road, Wilmslow	8.5	8.6	0.1	Negligible	Not significant
6-O-H016	Alderley Road, Wilmslow	10.3	10.2	-0.1	Negligible	Not significant
6-O-H017	Alderley Lodge, Wilmslow	9.9	10.0	0.1	Negligible	Not significant
6-O-H018	Alderley Road, Wilmslow	11.1	11.1	< 0.1	Negligible	Not significant
6-O-H019	Alderley Road, Wilmslow	10.2	10.3	0.1	Negligible	Not significant
6-O-H020	Alderley Road, Wilmslow	10.7	10.8	0.1	Negligible	Not significant
6-O-H021	Albert Road, Wilmslow	10.9	11.1	0.2	Negligible	Not significant

Receptor	Description/Location	NO_2 concentrations ($\mu g/m^3$)		Change in NO_2 concentrations ($\mu g/m^3$)	Impact descriptor	Significance
		2038 without the Proposed Scheme	2038 with the Proposed Scheme			
6-O-H022	Alderley Road, Wilmslow	9.6	9.6	< 0.1	Negligible	Not significant
6-O-H023	Alderley Road, Wilmslow	11.0	11.2	0.2	Negligible	Not significant
6-O-H024	Buckingham Road, Wilmslow	10.2	10.3	0.1	Negligible	Not significant
6-O-H025	Altrincham Road, Wilmslow	13.4	13.6	0.2	Negligible	Not significant
6-O-H026	Station Road, Wilmslow	12.4	12.5	0.1	Negligible	Not significant
6-O-H027	Swan Street, Wilmslow	13.1	13.3	0.2	Negligible	Not significant
6-O-H028	Bank Square, Wilmslow	9.8	10.1	0.3	Negligible	Not significant
6-O-H029	Gorsey Bank Primary School, Altrincham Road, Wilmslow	10.2	10.2	< 0.1	Negligible	Not significant
6-O-H030	Bollin Walk, Wilmslow	12.9	13.0	0.1	Negligible	Not significant
6-O-H031	Connaught Close, WIlmslow	9.8	9.8	< 0.1	Negligible	Not significant
6-O-H032	Kingsbury Drive, Wilmslow	11.1	11.1	< 0.1	Negligible	Not significant
6-O-H033	Lancelyn Drive, Wilmslow	9.7	9.7	< 0.1	Negligible	Not significant
6-O-H034	Queensbury Close, Wilmslow	11.1	11.1	< 0.1	Negligible	Not significant
6-O-H035	Tatton Dale, Knutsford	7.9	7.7	-0.2	Negligible	Not significant
6-O-H036	Mobberley Road, Ashley	10.5	10.6	0.1	Negligible	Not significant
6-O-H037	Rostherne Lane, Rostherne	7.8	8.0	0.2	Negligible	Not significant
6-O-H038	Rostherne Lane, Rostherne	7.9	8.1	0.2	Negligible	Not significant
6-O-H039	Hollin Lane, Styal, Wilmslow	10.8	11.0	0.2	Negligible	Not significant
6-O-H040	Millington Hall Lane, Millington	12.0	12.1	0.1	Negligible	Not significant
6-O-H041	Mobberley Road, Ashley	12.6	13.3	0.7	Negligible	Not significant
6-O-H042	Ashley Road, Ashley	11.2	11.1	-0.1	Negligible	Not significant
6-O-H043	Castle Mill Lane, Ashley	12.6	12.4	-0.2	Negligible	Not significant

Receptor	Description/Location	NO_2 concentrations ($\mu g/m^3$)		Change in NO_2 concentrations ($\mu g/m^3$)	Impact descriptor	Significance
		2038 without the Proposed Scheme	2038 with the Proposed Scheme			
6-O-H044	Hollin Lane, Styal, Wilmslow	13.0	13.1	0.1	Negligible	Not significant
6-O-H045	Ashley Road, Ashley	12.3	11.8	-0.5	Negligible	Not significant
6-O-H046	Ashley Road, Ashley	12.0	11.3	-0.7	Negligible	Not significant
6-O-H047	Chester Road, Millington	10.8	10.9	0.1	Negligible	Not significant
6-O-H048	Ashley Road, Ashley	12.9	11.5	-1.4	Negligible	Not significant
6-O-H049	Cow Lane, Ashley	13.5	13.3	-0.2	Negligible	Not significant
6-O-H050	Holly Lane, Styal, Wilmslow	13.1	13.2	0.1	Negligible	Not significant
6-O-H051	Millington Lane, Millington	11.7	11.8	0.1	Negligible	Not significant
6-O-H052	Thowler Lane, Millington	8.2	8.1	-0.1	Negligible	Not significant
6-O-H053	Hollin Lane, Styal, Wilmslow	12.7	12.7	< 0.1	Negligible	Not significant
6-O-H054	Tanyard Farm, Castle Mill Lane	13.0	13.1	0.1	Negligible	Not significant
6-O-H055	House near riding stables, Hale Barns	14.2	14.3	0.1	Negligible	Not significant
6-O-H056	Wilmslow Road, Altrincham	19.6	19.6	< 0.1	Negligible	Not significant
6-O-H057	Sunbank Lane, Manchester	20.7	20.8	0.1	Negligible	Not significant
6-O-H058	Styal Road, Styal, Wilmslow	13.1	13.1	< 0.1	Negligible	Not significant
6-O-H059	Chester Road, Millington	17.7	17.9	0.2	Negligible	Not significant
6-O-H060	Ryecroft Farm, Altrincham	13.1	13.2	0.1	Negligible	Not significant
6-O-H061	Cherry Tree Lane, Rostherne	10.3	10.3	< 0.1	Negligible	Not significant
6-O-H062	Hasty Lane, Hale Barns	20.7	20.6	-0.1	Negligible	Not significant
6-O-H063	Hasty Lane, Hale Barns	21.0	21.5	0.5	Negligible	Not significant
6-O-H064	Reddy Lane, Millington	12.0	12.1	0.1	Negligible	Not significant
6-O-H065	Hale Road, Hale Barns	13.0	13.0	< 0.1	Negligible	Not significant

Receptor	Description/Location	NO_2 concentrations ($\mu g/m^3$)		Change in NO_2 concentrations ($\mu g/m^3$)	Impact descriptor	Significance
		2038 without the Proposed Scheme	2038 with the Proposed Scheme			
6-O-H066	Yarwoodheath Lane, Altrincham	14.3	14.3	< 0.1	Negligible	Not significant
6-O-H067	Reddy Lane, Millington	11.7	12.0	0.3	Negligible	Not significant
6-O-H068	Hasty Lane, Hale Barns	22.1	22.2	0.1	Negligible	Not significant
6-O-H069	Elmridge Primary School, Wilton Drive, Hale Barns	12.0	12.0	< 0.1	Negligible	Not significant
6-O-H070	Hale Road, Hale Barns, Altrincham	14.8	14.5	-0.3	Negligible	Not significant
6-O-H071	Reddy Lane, Millington	10.4	10.6	0.2	Negligible	Not significant
6-O-H072	Hale Road, Hale Barns, Altrincham	13.2	13.1	-0.1	Negligible	Not significant
6-O-H073	Hale Road, Hale Barns, Altrincham	14.8	14.4	-0.4	Negligible	Not significant
6-O-H074	Abinger Road, Hale Barns	13.6	13.5	-0.1	Negligible	Not significant
6-O-H075	Abinger Road, Hale Barns	14.6	14.4	-0.2	Negligible	Not significant
6-O-H076	Shay Lane, Hale Barns	12.7	12.7	< 0.1	Negligible	Not significant
6-O-H077	Thorley Lane, Manchester	19.7	19.6	-0.1	Negligible	Not significant
6-O-H078	Hale Road, Hale Barns, Altrincham	11.1	11.1	< 0.1	Negligible	Not significant
6-O-H079	Hale Road, Hale Barns, Altrincham	10.4	10.3	-0.1	Negligible	Not significant
6-O-H080	Thorley Lane, Manchester	15.3	15.4	0.1	Negligible	Not significant
6-O-H081	Broad Lane, Hale Barns	11.2	11.1	-0.1	Negligible	Not significant
6-O-H082	Dunham Road, Bowdon, Altrincham	10.7	10.7	< 0.1	Negligible	Not significant
6-O-H083	Hale, Altrincham	11.3	11.2	-0.1	Negligible	Not significant
6-O-H084	Hale Road, Hale Barns	11.1	11.0	-0.1	Negligible	Not significant
6-O-H085	Hale, Altrincham	11.4	11.5	0.1	Negligible	Not significant
6-O-H086	Ash Lane, Hale	11.5	11.6	0.1	Negligible	Not significant
6-O-H087	Grove Lane, Timperley	11.2	11.3	0.1	Negligible	Not significant

Receptor	Description/Location	NO_2 concentrations (µg/m³)		Change in NO_2 concentrations (µg/m³)	Impact descriptor	Significance
		2038 without the Proposed Scheme	2038 with the Proposed Scheme			
6-O-H088	Grove Lane, Hale	12.9	13.0	0.1	Negligible	Not significant
6-O-H089	Bowdon, Altrincham	10.9	10.9	< 0.1	Negligible	Not significant
6-O-H090	Delahays Road, Hale	12.8	12.9	0.1	Negligible	Not significant
6-O-H091	Grove Lane, Timperley	12.9	13.1	0.2	Negligible	Not significant
6-O-H092	Grove Lane, Timperley	14.0	14.2	0.2	Negligible	Not significant
6-O-H093	Dunham Road, Bowdon, Altrincham	14.5	14.6	0.1	Negligible	Not significant
6-O-H094	Grove Lane, Hale, Altrincham	11.0	11.1	0.1	Negligible	Not significant
6-O-H095	Grove Lane, Timperley	11.5	11.7	0.2	Negligible	Not significant
6-O-H096	Grove Lane, Timperley	11.3	11.4	0.1	Negligible	Not significant
6-O-H097	Clay Lane, Hale, Altrincham	11.3	11.4	0.1	Negligible	Not significant
6-O-H098	Clay Lane, Hale, Altrincham	12.9	13.2	0.3	Negligible	Not significant

Table 22: Predicted annual mean PM_{10} concentrations and impacts (operation phase)

Receptor	Description/Location	PM_{10} concentrations (µg/m³)		Change in PM_{10} concentrations (µg/m³)	Impact descriptor	Significance
		2038 without the Proposed Scheme	2038 with the Proposed Scheme			
6-O-H001	Alderley Edge School for Girls, Wilmslow Road, Alderley Edge	9.5	9.5	< 0.1	Negligible	Not significant
6-O-H002	Hurst Lea Court, Alderley Edge	10.4	10.5	0.1	Negligible	Not significant
6-O-H003	Brook Lane, Alderley Edge	9.6	9.7	0.1	Negligible	Not significant
6-O-H004	Brook Lane, Alderley Edge	9.6	9.7	0.1	Negligible	Not significant
6-O-H005	Brookside Terrace, Alderley Edge	9.4	9.4	< 0.1	Negligible	Not significant
6-O-H006	Brook Lane, Alderley Edge	9.8	9.9	0.1	Negligible	Not significant

Receptor	Description/Location	PM_{10} concentrations (µg/m³)		Change in PM_{10} concentrations (µg/m³)	Impact descriptor	Significance
		2038 without the Proposed Scheme	2038 with the Proposed Scheme			
6-O-H007	Knutsford Road, Alderley Edge	9.7	9.8	0.1	Negligible	Not significant
6-O-H008	Hall Lane, Mobberley	9.9	10.0	0.1	Negligible	Not significant
6-O-H009	Hall Lane, Knolls Green	9.4	9.5	0.1	Negligible	Not significant
6-O-H010	Knutsford Road, Wilmslow	9.3	9.3	< 0.1	Negligible	Not significant
6-O-H011	Tipping Brow, Mobberley	9.3	9.3	< 0.1	Negligible	Not significant
6-O-H012	Ashford Road, Wilmslow	9.6	9.6	< 0.1	Negligible	Not significant
6-O-H013	Knutsford Road, Wilmslow	9.6	9.7	0.1	Negligible	Not significant
6-O-H014	Alderley Road, Wilmslow	9.6	9.5	-0.1	Negligible	Not significant
6-O-H015	Knutsford Road, Wilmslow	9.4	9.5	0.1	Negligible	Not significant
6-O-H016	Alderley Road, Wilmslow	9.9	9.8	-0.1	Negligible	Not significant
6-O-H017	Alderley Lodge, Wilmslow	9.6	9.6	< 0.1	Negligible	Not significant
6-O-H018	Alderley Road, Wilmslow	10.2	10.1	-0.1	Negligible	Not significant
6-O-H019	Alderley Road, Wilmslow	9.8	9.8	< 0.1	Negligible	Not significant
6-O-H020	Alderley Road, Wilmslow	10.1	10.1	< 0.1	Negligible	Not significant
6-O-H021	Albert Road, Wilmslow	10.2	10.3	0.1	Negligible	Not significant
6-O-H022	Alderley Road, Wilmslow	9.5	9.5	< 0.1	Negligible	Not significant
6-O-H023	Alderley Road, Wilmslow	10.2	10.3	0.1	Negligible	Not significant
6-O-H024	Buckingham Road, Wilmslow	10.0	10.1	0.1	Negligible	Not significant
6-O-H025	Altrincham Road, Wilmslow	11.6	11.7	0.1	Negligible	Not significant
6-O-H026	Station Road, Wilmslow	10.8	10.9	0.1	Negligible	Not significant
6-O-H027	Swan Street, Wilmslow	11.2	11.3	0.1	Negligible	Not significant
6-O-H028	Bank Square, Wilmslow	9.6	9.7	0.1	Negligible	Not significant

Receptor	Description/Location	PM_{10} concentrations ($\mu g/m^3$)		Change in PM_{10} concentrations ($\mu g/m^3$)	Impact descriptor	Significance
		2038 without the Proposed Scheme	2038 with the Proposed Scheme			
6-O-H029	Gorsey Bank Primary School, Altrincham Road, Wilmslow	10.0	10.1	0.1	Negligible	Not significant
6-O-H030	Bollin Walk, Wilmslow	11.1	11.1	< 0.1	Negligible	Not significant
6-O-H031	Connaught Close, WIlmslow	10.1	10.1	< 0.1	Negligible	Not significant
6-O-H032	Kingsbury Drive, Wilmslow	10.9	10.9	< 0.1	Negligible	Not significant
6-O-H033	Lancelyn Drive, Wilmslow	9.9	9.9	< 0.1	Negligible	Not significant
6-O-H034	Queensbury Close, Wilmslow	10.7	10.7	< 0.1	Negligible	Not significant
6-O-H035	Tatton Dale, Knutsford	10.0	9.9	-0.1	Negligible	Not significant
6-O-H036	Mobberley Road, Ashley	10.2	10.2	< 0.1	Negligible	Not significant
6-O-H037	Rostherne Lane, Rostherne	9.9	10.0	0.1	Negligible	Not significant
6-O-H038	Rostherne Lane, Rostherne	10.0	10.0	< 0.1	Negligible	Not significant
6-O-H039	Hollin Lane, Styal, Wilmslow	9.6	9.7	0.1	Negligible	Not significant
6-O-H040	Millington Hall Lane, Millington	12.4	12.4	< 0.1	Negligible	Not significant
6-O-H041	Mobberley Road, Ashley	12.3	12.5	0.2	Negligible	Not significant
6-O-H042	Ashley Road, Ashley	12.3	12.2	-0.1	Negligible	Not significant
6-O-H043	Castle Mill Lane, Ashley	11.4	11.3	-0.1	Negligible	Not significant
6-O-H044	Hollin Lane, Styal, Wilmslow	9.5	9.5	< 0.1	Negligible	Not significant
6-O-H045	Ashley Road, Ashley	12.1	11.9	-0.2	Negligible	Not significant
6-O-H046	Ashley Road, Ashley	12.0	11.7	-0.3	Negligible	Not significant
6-O-H047	Chester Road, Millington	11.9	11.9	< 0.1	Negligible	Not significant
6-O-H048	Ashley Road, Ashley	12.4	11.8	-0.6	Negligible	Not significant
6-O-H049	Cow Lane, Ashley	12.6	12.5	-0.1	Negligible	Not significant
6-O-H050	Holly Lane, Styal, Wilmslow	9.5	9.6	0.1	Negligible	Not significant

Receptor	Description/Location	PM_{10} concentrations (µg/m³)		Change in PM_{10} concentrations (µg/m³)	Impact descriptor	Significance
		2038 without the Proposed Scheme	2038 with the Proposed Scheme			
6-O-H051	Millington Lane, Millington	12.2	12.2	< 0.1	Negligible	Not significant
6-O-H052	Thowler Lane, Millington	10.2	10.2	< 0.1	Negligible	Not significant
6-O-H053	Hollin Lane, Styal, Wilmslow	9.3	9.4	0.1	Negligible	Not significant
6-O-H054	Tanyard Farm, Castle Mill Lane	11.9	11.9	< 0.1	Negligible	Not significant
6-O-H055	House near riding stables, Hale Barns	11.9	11.9	< 0.1	Negligible	Not significant
6-O-H056	Wilmslow Road, Altrincham	10.8	10.9	0.1	Negligible	Not significant
6-O-H057	Sunbank Lane, Manchester	11.2	11.2	< 0.1	Negligible	Not significant
6-O-H058	Styal Road, Styal, Wilmslow	9.5	9.5	< 0.1	Negligible	Not significant
6-O-H059	Chester Road, Millington	14.4	14.5	0.1	Negligible	Not significant
6-O-H060	Ryecroft Farm, Altrincham	12.3	12.4	0.1	Negligible	Not significant
6-O-H061	Cherry Tree Lane, Rostherne	11.7	11.8	0.1	Negligible	Not significant
6-O-H062	Hasty Lane, Hale Barns	12.8	12.7	-0.1	Negligible	Not significant
6-O-H063	Hasty Lane, Hale Barns	13.0	13.3	0.3	Negligible	Not significant
6-O-H064	Reddy Lane, Millington	12.2	12.2	< 0.1	Negligible	Not significant
6-O-H065	Hale Road, Hale Barns	10.7	10.7	< 0.1	Negligible	Not significant
6-O-H066	Yarwoodheath Lane, Altrincham	12.1	12.1	< 0.1	Negligible	Not significant
6-O-H067	Reddy Lane, Millington	12.0	12.2	0.2	Negligible	Not significant
6-O-H068	Hasty Lane, Hale Barns	13.3	13.4	0.1	Negligible	Not significant
6-O-H069	Elmridge Primary School, Wilton Drive, Hale Barns	10.2	10.2	< 0.1	Negligible	Not significant
6-O-H070	Hale Road, Hale Barns, Altrincham	11.7	11.6	-0.1	Negligible	Not significant
6-O-H071	Reddy Lane, Millington	11.5	11.6	0.1	Negligible	Not significant
6-O-H072	Hale Road, Hale Barns, Altrincham	10.9	10.8	-0.1	Negligible	Not significant

Receptor	Description/Location	PM_{10} concentrations (µg/m³)		Change in PM_{10} concentrations (µg/m³)	Impact descriptor	Significance
		2038 without the Proposed Scheme	2038 with the Proposed Scheme			
6-O-H073	Hale Road, Hale Barns, Altrincham	11.7	11.6	-0.1	Negligible	Not significant
6-O-H074	Abinger Road, Hale Barns	11.0	11.0	< 0.1	Negligible	Not significant
6-O-H075	Abinger Road, Hale Barns	11.5	11.4	-0.1	Negligible	Not significant
6-O-H076	Shay Lane, Hale Barns	10.7	10.7	< 0.1	Negligible	Not significant
6-O-H077	Thorley Lane, Manchester	14.3	14.2	-0.1	Negligible	Not significant
6-O-H078	Hale Road, Hale Barns, Altrincham	10.5	10.5	< 0.1	Negligible	Not significant
6-O-H079	Hale Road, Hale Barns, Altrincham	10.1	10.1	< 0.1	Negligible	Not significant
6-O-H080	Thorley Lane, Manchester	13.3	13.4	0.1	Negligible	Not significant
6-O-H081	Broad Lane, Hale Barns	10.6	10.5	-0.1	Negligible	Not significant
6-O-H082	Dunham Road, Bowdon, Altrincham	11.4	11.5	0.1	Negligible	Not significant
6-O-H083	Hale, Altrincham	10.6	10.6	< 0.1	Negligible	Not significant
6-O-H084	Hale Road, Hale Barns	10.5	10.5	< 0.1	Negligible	Not significant
6-O-H085	Hale, Altrincham	10.6	10.7	0.1	Negligible	Not significant
6-O-H086	Ash Lane, Hale	10.4	10.5	0.1	Negligible	Not significant
6-O-H087	Grove Lane, Timperley	10.3	10.3	< 0.1	Negligible	Not significant
6-O-H088	Grove Lane, Hale	11.4	11.4	< 0.1	Negligible	Not significant
6-O-H089	Bowdon, Altrincham	10.6	10.7	0.1	Negligible	Not significant
6-O-H090	Delahays Road, Hale	11.3	11.4	0.1	Negligible	Not significant
6-O-H091	Grove Lane, Timperley	11.4	11.5	0.1	Negligible	Not significant
6-O-H092	Grove Lane, Timperley	11.9	12.0	0.1	Negligible	Not significant
6-O-H093	Dunham Road, Bowdon, Altrincham	12.2	12.2	< 0.1	Negligible	Not significant
6-O-H094	Grove Lane, Hale, Altrincham	10.2	10.2	< 0.1	Negligible	Not significant

Receptor	Description/Location	PM_{10} concentrations (µg/m³)		Change in PM_{10} concentrations (µg/m³)	Impact descriptor	Significance
		2038 without the Proposed Scheme	2038 with the Proposed Scheme			
6-O-H095	Grove Lane, Timperley	10.5	10.5	< 0.1	Negligible	Not significant
6-O-H096	Grove Lane, Timperley	10.3	10.4	0.1	Negligible	Not significant
6-O-H097	Clay Lane, Hale, Altrincham	10.4	10.4	< 0.1	Negligible	Not significant
6-O-H098	Clay Lane, Hale, Altrincham	11.2	11.4	0.2	Negligible	Not significant

Table 23: Predicted annual mean $PM_{2.5}$ concentrations and impacts (operation phase)

Receptor	Description/Location	$PM_{2.5}$ concentrations (µg/m³)		change in $PM_{2.5}$ concentrations (µg/m³)	Impact descriptor	Significance
		2038 without the Proposed Scheme	2038 with the Proposed Scheme			
6-O-H001	Alderley Edge School for Girls, Wilmslow Road, Alderley Edge	6.3	6.3	< 0.1	Negligible	Not significant
6-O-H002	Hurst Lea Court, Alderley Edge	6.8	6.8	< 0.1	Negligible	Not significant
6-O-H003	Brook Lane, Alderley Edge	6.3	6.4	0.1	Negligible	Not significant
6-O-H004	Brook Lane, Alderley Edge	6.3	6.4	0.1	Negligible	Not significant
6-O-H005	Brookside Terrace, Alderley Edge	6.2	6.2	< 0.1	Negligible	Not significant
6-O-H006	Brook Lane, Alderley Edge	6.4	6.5	0.1	Negligible	Not significant
6-O-H007	Knutsford Road, Alderley Edge	6.4	6.4	< 0.1	Negligible	Not significant
6-O-H008	Hall Lane, Mobberley	6.4	6.5	0.1	Negligible	Not significant
6-O-H009	Hall Lane, Knolls Green	6.1	6.2	0.1	Negligible	Not significant
6-O-H010	Knutsford Road, Wilmslow	6.1	6.2	0.1	Negligible	Not significant
6-O-H011	Tipping Brow, Mobberley	6.1	6.1	< 0.1	Negligible	Not significant
6-O-H012	Ashford Road, Wilmslow	6.3	6.3	< 0.1	Negligible	Not significant
6-O-H013	Knutsford Road, Wilmslow	6.4	6.5	0.1	Negligible	Not significant
6-O-H014	Alderley Road, Wilmslow	6.3	6.3	< 0.1	Negligible	Not significant

Receptor	Description/Location	$PM_{2.5}$ concentrations (µg/m^3)		change in $PM_{2.5}$ concentrations (µg/m^3)	Impact descriptor	Significance
		2038 without the Proposed Scheme	2038 with the Proposed Scheme			
6-O-H015	Knutsford Road, Wilmslow	6.3	6.4	0.1	Negligible	Not significant
6-O-H016	Alderley Road, Wilmslow	6.5	6.5	< 0.1	Negligible	Not significant
6-O-H017	Alderley Lodge, Wilmslow	6.4	6.4	< 0.1	Negligible	Not significant
6-O-H018	Alderley Road, Wilmslow	6.7	6.7	< 0.1	Negligible	Not significant
6-O-H019	Alderley Road, Wilmslow	6.5	6.5	< 0.1	Negligible	Not significant
6-O-H020	Alderley Road, Wilmslow	6.6	6.7	0.1	Negligible	Not significant
6-O-H021	Albert Road, Wilmslow	6.7	6.7	< 0.1	Negligible	Not significant
6-O-H022	Alderley Road, Wilmslow	6.3	6.3	< 0.1	Negligible	Not significant
6-O-H023	Alderley Road, Wilmslow	6.7	6.8	0.1	Negligible	Not significant
6-O-H024	Buckingham Road, Wilmslow	6.6	6.6	< 0.1	Negligible	Not significant
6-O-H025	Altrincham Road, Wilmslow	7.5	7.5	< 0.1	Negligible	Not significant
6-O-H026	Station Road, Wilmslow	7.1	7.1	< 0.1	Negligible	Not significant
6-O-H027	Swan Street, Wilmslow	7.3	7.3	< 0.1	Negligible	Not significant
6-O-H028	Bank Square, Wilmslow	6.4	6.5	0.1	Negligible	Not significant
6-O-H029	Gorsey Bank Primary School, Altrincham Road, Wilmslow	6.6	6.6	< 0.1	Negligible	Not significant
6-O-H030	Bollin Walk, Wilmslow	7.2	7.3	0.1	Negligible	Not significant
6-O-H031	Connaught Close, WIlmslow	6.6	6.6	< 0.1	Negligible	Not significant
6-O-H032	Kingsbury Drive, Wilmslow	7.0	7.1	0.1	Negligible	Not significant
6-O-H033	Lancelyn Drive, Wilmslow	6.5	6.5	< 0.1	Negligible	Not significant
6-O-H034	Queensbury Close, Wilmslow	6.9	7.0	0.1	Negligible	Not significant
6-O-H035	Tatton Dale, Knutsford	6.3	6.2	-0.1	Negligible	Not significant
6-O-H036	Mobberley Road, Ashley	6.5	6.6	0.1	Negligible	Not significant

Receptor	Description/Location	$PM_{2.5}$ concentrations (µg/m^3)		change in $PM_{2.5}$ concentrations (µg/m^3)	Impact descriptor	Significance
		2038 without the Proposed Scheme	2038 with the Proposed Scheme			
6-O-H037	Rostherne Lane, Rostherne	6.3	6.3	< 0.1	Negligible	Not significant
6-O-H038	Rostherne Lane, Rostherne	6.3	6.3	< 0.1	Negligible	Not significant
6-O-H039	Hollin Lane, Styal, Wilmslow	6.3	6.4	0.1	Negligible	Not significant
6-O-H040	Millington Hall Lane, Millington	7.6	7.6	< 0.1	Negligible	Not significant
6-O-H041	Mobberley Road, Ashley	7.6	7.7	0.1	Negligible	Not significant
6-O-H042	Ashley Road, Ashley	7.4	7.3	-0.1	Negligible	Not significant
6-O-H043	Castle Mill Lane, Ashley	7.2	7.1	-0.1	Negligible	Not significant
6-O-H044	Hollin Lane, Styal, Wilmslow	6.3	6.3	< 0.1	Negligible	Not significant
6-O-H045	Ashley Road, Ashley	7.5	7.3	-0.2	Negligible	Not significant
6-O-H046	Ashley Road, Ashley	7.4	7.2	-0.2	Negligible	Not significant
6-O-H047	Chester Road, Millington	7.4	7.4	< 0.1	Negligible	Not significant
6-O-H048	Ashley Road, Ashley	7.6	7.3	-0.3	Negligible	Not significant
6-O-H049	Cow Lane, Ashley	7.7	7.7	< 0.1	Negligible	Not significant
6-O-H050	Holly Lane, Styal, Wilmslow	6.3	6.4	0.1	Negligible	Not significant
6-O-H051	Millington Lane, Millington	7.6	7.6	< 0.1	Negligible	Not significant
6-O-H052	Thowler Lane, Millington	6.4	6.4	< 0.1	Negligible	Not significant
6-O-H053	Hollin Lane, Styal, Wilmslow	6.2	6.2	< 0.1	Negligible	Not significant
6-O-H054	Tanyard Farm, Castle Mill Lane	7.4	7.4	< 0.1	Negligible	Not significant
6-O-H055	House near riding stables, Hale Barns	7.5	7.5	< 0.1	Negligible	Not significant
6-O-H056	Wilmslow Road, Altrincham	7.0	7.0	< 0.1	Negligible	Not significant
6-O-H057	Sunbank Lane, Manchester	7.2	7.2	< 0.1	Negligible	Not significant
6-O-H058	Styal Road, Styal, Wilmslow	6.3	6.3	< 0.1	Negligible	Not significant

Receptor	Description/Location	$PM_{2.5}$ concentrations (µg/m^3)		change in $PM_{2.5}$ concentrations (µg/m^3)	Impact descriptor	Significance
		2038 without the Proposed Scheme	2038 with the Proposed Scheme			
6-O-H059	Chester Road, Millington	9.0	9.0	< 0.1	Negligible	Not significant
6-O-H060	Ryecroft Farm, Altrincham	7.6	7.6	< 0.1	Negligible	Not significant
6-O-H061	Cherry Tree Lane, Rostherne	7.3	7.3	< 0.1	Negligible	Not significant
6-O-H062	Hasty Lane, Hale Barns	8.1	8.1	< 0.1	Negligible	Not significant
6-O-H063	Hasty Lane, Hale Barns	8.2	8.3	0.1	Negligible	Not significant
6-O-H064	Reddy Lane, Millington	7.5	7.5	< 0.1	Negligible	Not significant
6-O-H065	Hale Road, Hale Barns	7.0	7.0	< 0.1	Negligible	Not significant
6-O-H066	Yarwoodheath Lane, Altrincham	7.6	7.6	< 0.1	Negligible	Not significant
6-O-H067	Reddy Lane, Millington	7.4	7.5	0.1	Negligible	Not significant
6-O-H068	Hasty Lane, Hale Barns	8.4	8.4	< 0.1	Negligible	Not significant
6-O-H069	Elmridge Primary School, Wilton Drive, Hale Barns	6.7	6.7	< 0.1	Negligible	Not significant
6-O-H070	Hale Road, Hale Barns, Altrincham	7.5	7.5	< 0.1	Negligible	Not significant
6-O-H071	Reddy Lane, Millington	7.1	7.2	0.1	Negligible	Not significant
6-O-H072	Hale Road, Hale Barns, Altrincham	7.1	7.0	-0.1	Negligible	Not significant
6-O-H073	Hale Road, Hale Barns, Altrincham	7.5	7.4	-0.1	Negligible	Not significant
6-O-H074	Abinger Road, Hale Barns	7.2	7.1	-0.1	Negligible	Not significant
6-O-H075	Abinger Road, Hale Barns	7.4	7.4	< 0.1	Negligible	Not significant
6-O-H076	Shay Lane, Hale Barns	7.0	7.0	< 0.1	Negligible	Not significant
6-O-H077	Thorley Lane, Manchester	9.0	9.0	< 0.1	Negligible	Not significant
6-O-H078	Hale Road, Hale Barns, Altrincham	6.9	6.9	< 0.1	Negligible	Not significant
6-O-H079	Hale Road, Hale Barns, Altrincham	6.7	6.7	< 0.1	Negligible	Not significant
6-O-H080	Thorley Lane, Manchester	8.4	8.5	0.1	Negligible	Not significant

Receptor	Description/Location	$PM_{2.5}$ concentrations (µg/m^3)		change in $PM_{2.5}$ concentrations (µg/m^3)	Impact descriptor	Significance
		2038 without the Proposed Scheme	2038 with the Proposed Scheme			
6-O-H081	Broad Lane, Hale Barns	6.9	6.9	< 0.1	Negligible	Not significant
6-O-H082	Dunham Road, Bowdon, Altrincham	7.1	7.2	0.1	Negligible	Not significant
6-O-H083	Hale, Altrincham	7.0	6.9	-0.1	Negligible	Not significant
6-O-H084	Hale Road, Hale Barns	6.9	6.9	< 0.1	Negligible	Not significant
6-O-H085	Hale, Altrincham	7.1	7.1	< 0.1	Negligible	Not significant
6-O-H086	Ash Lane, Hale	6.9	6.9	< 0.1	Negligible	Not significant
6-O-H087	Grove Lane, Timperley	6.8	6.8	< 0.1	Negligible	Not significant
6-O-H088	Grove Lane, Hale	7.5	7.5	< 0.1	Negligible	Not significant
6-O-H089	Bowdon, Altrincham	6.9	6.9	< 0.1	Negligible	Not significant
6-O-H090	Delahays Road, Hale	7.4	7.5	0.1	Negligible	Not significant
6-O-H091	Grove Lane, Timperley	7.5	7.5	< 0.1	Negligible	Not significant
6-O-H092	Grove Lane, Timperley	7.8	7.8	< 0.1	Negligible	Not significant
6-O-H093	Dunham Road, Bowdon, Altrincham	7.8	7.8	< 0.1	Negligible	Not significant
6-O-H094	Grove Lane, Hale, Altrincham	6.8	6.8	< 0.1	Negligible	Not significant
6-O-H095	Grove Lane, Timperley	6.9	7.0	0.1	Negligible	Not significant
6-O-H096	Grove Lane, Timperley	6.9	6.9	< 0.1	Negligible	Not significant
6-O-H097	Clay Lane, Hale, Altrincham	6.9	6.9	< 0.1	Negligible	Not significant
6-O-H098	Clay Lane, Hale, Altrincham	7.3	7.4	0.1	Negligible	Not significant

Table 24: Predicted annual mean of NOx concentrations at ecological sites (operation phase)

Ecological site	Distance to road (m)	NOx concentrations (µg/m^3)		Change in NOx concentrations (µg/m^3)	Comparison against air quality standard (30µg/m^3)
		2038 without the Proposed Scheme	2038 with the Proposed Scheme		
Rostherne Mere SSSI transect 1	102m	10.2	10.2	< 0.1	Within standard
	150m	10.2	10.2	< 0.1	Within standard
	200m	10.2	10.2	< 0.1	Within standard
Rostherne Mere SSSI transect 2	0m	13.4	13.8	0.4	Within standard
	10m	13.1	13.3	0.2	Within standard
	20m	12.9	13.1	0.2	Within standard
	30m	12.8	12.9	0.1	Within standard
	40m	12.7	12.8	0.1	Within standard
	50m	12.6	12.7	0.1	Within standard
	75m	12.3	12.4	0.1	Within standard
	100m	12.1	12.2	0.1	Within standard
	150m	11.9	11.9	< 0.1	Within standard
	200m	11.6	11.7	0.1	Within standard
Rostherne Mere SSSI transect 3	2m	16.1	16.3	0.2	Within standard
	10m	15.2	15.3	0.1	Within standard
	20m	14.4	14.5	0.1	Within standard
	30m	13.8	13.9	0.1	Within standard
	40m	13.4	13.5	0.1	Within standard
	50m	13.1	13.1	< 0.1	Within standard
	75m	12.5	12.5	< 0.1	Within standard
	100m	12.1	12.2	0.1	Within standard
	150m	11.6	11.7	0.1	Within standard

Ecological site	Distance to road (m)	NOx concentrations (µg/m^3)		Change in NOx concentrations (µg/m^3)	Comparison against air quality standard (30µg/m^3)
		2038 without the Proposed Scheme	2038 with the Proposed Scheme		
Rostherne Mere SSSI and Ramsar transect 3	200m	11.4	11.4	< 0.1	Within standard
Rostherne Mere SSSI transect 4	3m	21.3	21.6	0.3	Within standard
	10m	18.8	19	0.2	Within standard
	20m	16.7	16.9	0.2	Within standard
	30m	15.5	15.6	0.1	Within standard
	40m	14.6	14.7	0.1	Within standard
	50m	14	14.1	0.1	Within standard
	75m	13.1	13.1	< 0.1	Within standard
	100m	12.5	12.6	0.1	Within standard
	150m	11.9	11.9	< 0.1	Within standard
Rostherne Mere SSSI and Ramsar transect 4	184m	11.6	11.6	< 0.1	Within standard
	200m	12.6	12.6	< 0.1	Within standard
Lindow Common SSSI transect 1	3m	16.7	17	0.3	Within standard
	10m	14	14.1	0.1	Within standard
	20m	12.7	12.7	< 0.1	Within standard
	30m	12.1	12.2	0.1	Within standard
	40m	11.8	11.8	< 0.1	Within standard
	50m	11.6	11.6	< 0.1	Within standard
	75m	11.3	11.3	< 0.1	Within standard
	100m	11.2	11.2	< 0.1	Within standard
	150m	11	11	< 0.1	Within standard
	200m	11	11	< 0.1	Within standard

Ecological site	Distance to road (m)	NOx concentrations (µg/m^3)		Change in NOx concentrations (µg/m^3)	Comparison against air quality standard (30µg/m^3)
		2038 without the Proposed Scheme	2038 with the Proposed Scheme		
Cotterill Clough SSSI transect 2	15m	17	17.2	0.2	Within standard
	20m	16.5	16.7	0.2	Within standard
	30m	15.9	16	0.1	Within standard
	40m	15.5	15.6	0.1	Within standard
	50m	15.3	15.4	0.1	Within standard
	75m	15	15.1	0.1	Within standard
	100m	14.9	14.9	< 0.1	Within standard
	150m	14.7	14.7	< 0.1	Within standard
	200m	14.6	14.6	< 0.1	Within standard
Cotterill Clough SSSI transect 3	3m	20.6	21.1	0.5	Within standard
	10m	17.9	18.2	0.3	Within standard
	20m	16.5	16.7	0.2	Within standard
	30m	15.9	16	0.1	Within standard
	40m	15.5	15.6	0.1	Within standard
	50m	15.3	15.4	0.1	Within standard
	75m	15	15	< 0.1	Within standard
	100m	14.8	14.9	0.1	Within standard
	150m	14.7	14.7	< 0.1	Within standard
	200m	14.6	14.6	< 0.1	Within standard

Table 25: Assessment of N deposition at ecological sites (operation phase)

Ecological site	Distance to road (m)	Dry deposition (kg N/ha/yr)		Change in N deposition (kg N/ha/yr)	Critical load (kg N/ha/yr)	Percentage change in relation to lower critical load
		2038 without the Proposed Scheme	2038 with the Proposed Scheme			
Rostherne Mere SSSI and Ramsar transect 3	200m	39.5	39.5	<0.1	20	<0.1%
Rostherne Mere SSSI transect 4	3m	24.7	24.7	<0.1	30	<0.1%
	10m	24.5	24.5	<0.1	30	<0.1%
	20m	24.3	24.3	<0.1	30	<0.1%
	30m	24.2	24.2	<0.1	30	<0.1%
	40m	24.2	24.2	<0.1	30	<0.1%
	50m	24.1	24.1	<0.1	30	<0.1%
	75m	24.0	24.0	<0.1	30	<0.1%
	100m	24.0	24.0	<0.1	30	<0.1%
	150m	23.9	23.9	<0.1	30	<0.1%
Rostherne Mere SSSI and Ramsar transect 4	184m	23.9	23.9	<0.1	10	<0.1%
	200m	23.9	23.9	<0.1	10	<0.1%
Lindow Common SSSI - transect 1	3m	22.2	22.3	0.1	10	0.3%
	10m	21.8	21.8	<0.1	10	0.2%
	20m	21.6	21.6	<0.1	10	0.1%
	30m	21.5	21.5	<0.1	10	<0.1%
	40m	21.5	21.5	<0.1	10	<0.1%
	50m	21.4	21.4	<0.1	10	<0.1%
	75m	21.4	21.4	<0.1	10	<0.1%
	100m	21.4	21.4	<0.1	10	<0.1%
	150m	21.3	21.3	<0.1	10	<0.1%

Ecological site	Distance to road (m)	Dry deposition (kg N/ha/yr)		Change in N deposition (kg N/ha/yr)	Critical load (kg N/ha/yr)	Percentage change in relation to lower critical load
		2038 without the Proposed Scheme	2038 with the Proposed Scheme			
	200m	21.3	21.3	<0.1	10	<0.1%
Cotterill Clough SSSI - transect 2	15m	34.6	34.6	<0.1	15	0.2%
	20m	34.5	34.5	<0.1	15	0.2%
	30m	34.4	34.4	<0.1	15	0.1%
	40m	34.4	34.4	<0.1	15	<0.1%
	50m	34.3	34.3	<0.1	15	<0.1%
	75m	34.3	34.3	<0.1	15	<0.1%
	100m	34.2	34.3	<0.1	15	<0.1%
	150m	34.2	34.2	<0.1	15	<0.1%
	200m	34.2	34.2	<0.1	15	<0.1%
Cotterill Clough SSSI - transect 3	3m	35.1	35.2	0.1	15	0.5%
	10m	34.7	34.8	<0.1	15	0.3%
	20m	34.5	34.5	<0.1	15	0.2%
	30m	34.4	34.4	<0.1	15	0.1%
	40m	34.3	34.4	0.1	15	0.1%
	50m	34.3	34.3	<0.1	15	<0.1%
	75m	34.3	34.3	<0.1	15	<0.1%
	100m	34.2	34.2	<0.1	15	<0.1%
	150m	34.2	34.2	<0.1	15	<0.1%
	200m	34.2	34.2	<0.1	15	<0.1%

4.4.8 The annual mean concentrations of NO_2, PM_{10} and $PM_{2.5}$ are predicted to be within the air quality standards with and without operation of the Proposed Scheme. Since the annual mean NO_2 concentrations are predicted to be below 60µg/m^3, the hourly mean standard is also expected to be met. Similarly, since the annual mean PM_{10} concentrations are predicted to be below 35µg/m^3, the daily mean standard is also expected to be met.

4.4.9 Negligible impacts are predicted at all receptors in the area for NO_2, PM_{10} and $PM_{2.5}$ concentrations.

4.4.10 NOx concentrations at all modelled ecological designations are predicted to be within the air quality standard, both without and with the Proposed Scheme. The change in N deposition due to the Proposed Scheme is predicted to be less than 1% of the lower critical load for all sites.

Assessment of significance

4.4.11 No significant effects are anticipated at any receptor in relation to annual mean NO_2, PM_{10} and $PM_{2.5}$ concentrations.

4.4.12 Since the change in N deposition is predicted to be less than 1% of the lower critical load, no significant effects are predicted at any of the ecological sites.

5 Assessment of rail emissions

5.1 Overall assessment approach

The air quality assessment for rail emissions has used the approach described in the SMR (see Volume 5: Appendix CT-001-00001).

5.2 Assessment of rail emissions during construction

5.2.1 The operation of diesel trains associated with the Ashley railhead has been assessed for their emissions of NO_2 and sulphur dioxide (SO_2) to local air quality.

5.2.2 Screening criteria are set out by Defra[5] to determine the potential risk of exceedance from stationary diesel and/or moving locomotives at relevant sensitive receptors.

5.2.3 There are no locations of relevant exposure within 15m of where diesel locomotives will be regularly (at least three times a day) stationary for periods of 15 minutes. The risk of exceedance of the 15-minute SO_2 air quality standard is therefore considered to be negligible.

5.2.4 Background annual mean NO_2 concentrations around the Ashley railhead are lower than 25µg/m^3. Therefore, the risk of exceedance of the annual mean NO_2 standard is considered to be negligible.

5.2.5 No significant effects are anticipated at any receptor in relation to diesel trains operating at the Ashley railhead during construction of the Proposed Scheme.

5.3 Assessment of rail emissions during operation

5.3.1 There will be no direct atmospheric emissions from trains operating on the Proposed Scheme, since they will use electric traction. No assessment is therefore required. Indirect emissions from sources such as rail and brake wear have been assumed to be negligible.

[5] Department for Environment, Food and Rural Affairs (Defra) (2016), *Local Air Quality Management Technical Guidance (LAQM.TG16).* Available online at: https://laqm.defra.gov.uk/guidance/.

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