

High Speed Rail (Crewe – Manchester)

Background information and data

Air quality

BID AQ-002-OR003

Off-route works: Annandale depot

Additional data used in the air quality
assessment

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Department
for Transport

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1 Introduction

- 1.1.1 This report presents additional data used in the air quality assessment for the Proposed Scheme off-route works at Annandale depot and comprises:
- relevant policies and guidance; and
 - baseline air quality data.
- 1.1.2 This report should be read in conjunction with Volume 4, Off-route effects and Volume 5, Appendices¹.

¹ High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Environmental Statement*. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-environmental-statement>.

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2 Relevant policies and guidance

- 2.1.1 The Annandale depot lies within the administrative area of Dumfries and Galloway Council (DGC).

2.2 Dumfries and Galloway Council

- 2.2.1 The Local Development Plan for Dumfries and Galloway² provides the planning framework and guides the future use and development of land in towns, villages and the rural area. It also indicates where development, including regeneration, should happen and where it should not.
- 2.2.2 Policy OP1 (Development Considerations) (a) states, 'Development proposals should be compatible with the...amenity of the area...' and that issues relating to odour, fumes and '...emissions including dust, smoke, soot, ash, dirt or grit or any other environmental pollution to...air...' will be material considerations in the assessment of proposals².
- 2.2.3 Policy T1 (Transport Infrastructure) outlines that new or improved transport infrastructure proposals will be supported:
- "...provided they accord with the Regional and Local Transport Strategies; and where it can be demonstrated to the satisfaction of the Council that following appropriate assessment (where needed), the proposal has no adverse effects either alone or in combination on the integrity of any Natura site...."².

² Dumfries and Galloway Council (2019), *Local Development Plan 2*. Available online at: https://www.dumgal.gov.uk/media/22324/Development-Plan-Scheme-2019/pdf/DPS_20191.pdf?m=637140971401070000.

3 Baseline air quality data

3.1 Local air quality monitoring data

3.1.1 Table 1 presents the monitoring data from the diffusion tube site in this area. There are no continuous monitoring sites in this area. No PM₁₀ or PM_{2.5} monitoring is undertaken in this area.

Table 1: Annual mean NO₂ concentrations recorded at diffusion tube monitoring sites

Site	Ordnance Survey coordinates ³	Annual mean NO ₂ concentrations (µg/m ³)				
		2014	2015	2016	2017	2018
Gretna Loaning, Gretna	332110, 568264	17.9	19.1	16.2	17.5	14.3

3.2 Industrial emission sources

3.2.1 There are no industrial installations (regulated by the Scottish Environment Protection Agency) with permits for emissions to air in this area.

³ Dumfries and Galloway Council (2019), *2019 Air Quality Annual Progress Report (APR) for Dumfries and Galloway Council*. Available online at:
http://www.scottishairquality.scot/assets/documents/Dumfries_&_Galloway_Progress_Report_2019.pdf.

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4 Construction traffic data

- 4.1.1 Table 2 outlines the predicted flows for construction traffic on the highway network. The data presented are split into annual average daily traffic (AADT) and heavy duty vehicles (HDV) in the 'without the Proposed Scheme' and 'with the Proposed Scheme' scenarios, together with the change between the two scenarios.
- 4.1.2 The air quality assessment of construction traffic emissions has used traffic data based on an estimate of the average daily flows in the peak year during the construction period (2027–2031). The assessment assumes vehicle emission rates and background pollutant concentrations from year 2025, as the first year of construction for the full Proposed Scheme as set out in Volume 1.
- 4.1.3 Table 3 outlines the predicted flows of construction traffic on the site haul routes. The data are presented for the 'with the Proposed Scheme' scenario only split in HGV and articulated dump trucks (ADT).

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Table 2: Traffic data used for the construction assessment

Road ID	Road name	AADT			HDV			Comments
		2025 without the Proposed Scheme	2025 with the Proposed Scheme	Change	2025 without the Proposed Scheme	2025 with the Proposed Scheme	Change	
3015_3016, 3016_3015	A74(M)	37,535	38,006	471	9,144	9,445	301	
3009_3010, 3010_3009	B7076	1,805	1,969	164	292	443	151	
3011_3012, 3012_3011	Gretna Service access road	No data	155	155	No data	151	151	No baseline data
3010_3011, 3011_3010	Gretna Service access road	No data	155	155	No data	151	151	No baseline data
3008_3009, 3009_3008	B7076	1,390	1,554	164	202	353	151	
3008_3014, 3014_3008	B7076	1,390	1,554	164	202	353	151	
3014_3013, 3013_3014	Annandale depot main compound access road	No data	528	528	No data	301	301	New road
3007_3014, 3014_3007	B7076	2,204	2,570	366	366	517	151	
3006_3007, 3007_3006	B7076	2,204	2,570	366	366	517	151	
3005_3006, 3006_3005	B7076	2,204	2,570	366	366	517	151	
3004_3005, 3005_3004	B7076	2,204	2,570	366	366	517	151	

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Table 3: Construction traffic flows on the site haul routes

ID	No. 40 tonne ADT	No. 20 tonne HGV
ORW/01	0	4
ORW/02	0	4
ORW/03	0	4
ORW/04	0	4
ORW/05	0	4
ORW/06	0	4
ORW/07	0	4
ORW/08	0	4
ORW/09	0	4
ORW/10	2	0
ORW/11	2	0
ORW/12	2	0
ORW/13	2	0
ORW/14	2	0

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5 Operational traffic data

- 5.1.1 Table 4 outlines the predicted flows of traffic on the highway network relating to the operation of the Proposed Scheme in 2038. The data presented are split into AADT and HDV in the 'without the Proposed Scheme' and 'with the Proposed Scheme' scenarios, together with the change between the two scenarios. It also notes whether the road is a new road, or whether the road will be closed, diverted or realigned permanently, due to the operation of the Proposed Scheme.

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Table 4: Traffic data used for the operational assessment

Road ID	Road name	AADT			HDV			Notes
		2038 without the Proposed Scheme	2038 with the Proposed Scheme	Change	2038 without the Proposed Scheme	2038 with the Proposed Scheme	Change	
3015_3016, 3016_3015	A74(M)	39,148	39,265	117	9,274	9,286	12	
3009_3010, 3010_3009	B7076	1,857	1,900	43	297	297	0	
3008_3009, 3009_3008	B7076	1,431	1,474	43	205	205	0	
3008_3014, 3014_3008	B7076	1,431	1,474	43	205	205	0	
3014_3013, 3013_3014	Annandale depot main compound access road	No data	200	200	No data	12	12	New road
3007_3014, 3014_3007	B7076	2,266	2,440	174	371	383	12	
3006_3007, 3007_3006	B7076	2,266	2,440	174	371	383	12	
3005_3006, 3006_3005	B7076	2,266	2,440	174	371	383	12	
3004_3005, 3005_3004	B7076	2,266	2,382	116	371	377	6	

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6 References

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Dumfries and Galloway Council (2019), *2019 Air Quality Annual Progress Report (APR) for Dumfries and Galloway Council*. Available online at:

[http://www.scottishairquality.scot/assets/documents/Dumfries & Galloway Progress Report 2019.pdf](http://www.scottishairquality.scot/assets/documents/Dumfries_%20Galloway_Progress_Report_2019.pdf).

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