

Audit Summary Report

									IN PHASE 3
PCM Link	26047	Road/Location M56, Manchester						Area NW	
PCM predictions of NO₂ concentrations (µg/m³)									
Year	2018	2019	2020	2021	2022	2023	2024	2025	2026
PCM Modelled NO ₂ concentration (µg/m ³)	26	25	24	23	21	20	19	18	17
Monitoring NO ₂ Concentration* (µg/m ³)	55	60	57	54	51	48	46	43	41
Qualifying Feature									
Satellite imagery indicates Public Access and Sensitive Receptors within 15m from the PCM link.									
Air Quality Monitoring?									
Yes									
Is the Air Quality Monitoring within 10m, to support Phase 1 decision?									
No									
Air quality monitoring has been undertaken at a number of locations representative of relevant receptors over recent years. Distance corrected monitored NO ₂ concentrations were above the annual mean NO ₂ concentration of 40µg/m ³ in 2019 at the closet qualifying feature.									
Mitigation required?									
Yes – verified air quality modelling shows exceedances of the annual mean NO ₂ limit value of 40µg/m ³ beyond 2020.									
Possible Mitigation Options									
KEY:		✘ - Not possible			✓ - Possible		? - More research required		
Option	Feasible to bring compliance forward?	Summary							
Source – reducing emissions from the SRN									

Electric Towns and Cities Initiative (ETCI)	✘	<p>Interim criteria (outlined below) have been established to determine whether the ETCI initiative could be successfully delivered at locations along the SRN.</p> <ul style="list-style-type: none"> • Is there a limit value exceedance after 2026? • Are there more than 10,000 vans on this route? • Is the section of SRN in or close to an economic catchment area? <p>Based on these criteria, ETCI would not be appropriate for this SRN PCM link as it is predicted to become compliant with the annual mean NO₂ limit value by 2026.</p>
Traffic Management	✘	There are no possible reasonable traffic management solutions for this PCM link.
Speed Management of 60mph	✘	The existing speed limit along the M56 is 70mph. However, WebTRIS data has identified the daily average speed of vehicles travelling along this section of the M60 are already approximately 60mph. Consequently, speed management would not be appropriate for this part of the network.
Bus Retrofit	✘	It has been agreed with JAQU that given the incredibly small number of bus journeys on the motorway network this mitigation will result in no discernible reduction in NOx emissions along this link and therefore, this measure is not being progressed.
HGV Retrofit	✘	A review of traffic data for this PCM link has identified approximately 6,670 HGVs travelling along this link. Theoretically, a HGV retrofit scheme could reduce annual mean NO ₂ concentrations by 1.0µg/m ³ . However, no accredited retrofit system is currently available for HGVs nor is it known the mechanism for delivery. As such, it is anticipated that this measure would require a Government led scheme for delivery and National Highways is not able to progress this measure at this time.
Local Authority Clean Air Zone (CAZ)	?	At the time of preparing the Audit Report for this link (September 2023), Greater Manchester Authorities (GMA) have proposed significant changes to their charging CAZ. It is, therefore, is not known what type of CAZ nor the interventions GMA are proposing to bring forward. Consequently, it is not possible to confirm the level of change in NO ₂ concentrations attributed to the Greater Manchester CAZ.
Pathway – preventing the emissions reaching receptors		
9.5m high barrier	✘	<p>Emerging evidence based on air quality monitoring research undertaken by National Highways indicates a 2 – 5µg/m³ reduction in annual mean NO₂ concentrations behind a 9.5m overhanging barrier.</p> <p>This PCM link has been reviewed and construction of a barrier has been dismissed due to physical constraints. In any case,</p>

		based on the current PCM modelling, construction of the barrier would not deliver compliance in a shorter timescale.
Tunnels / canopies, Bypass	x	The current programme to build a tunnel / canopy or a bypass is estimated to be at least between 5 – 10 years. This means that none of these measures could be delivered earlier than the reported compliance date set out in the PCM model.
Receptor – dealing with concentrations at the affected receptors		
Any other local measures	?	Public Access Footpaths are located within 15m of this PCM link. A review of the existing footpaths has identified that there could be potential for an alternative route for these footpaths and a feasibility study is required.
Summary		
<p>This audit report has identified:</p> <ul style="list-style-type: none"> • Air quality monitoring identified an exceedance in 2019 when distance corrected to the closest qualifying feature along the PCM link. Therefore, this PCM Link has been taken forward for the development of mitigation measures. • There is potential for the footpaths located within 15m to be relocated, but a feasibility study will be required to determine how viable this is. 		
Recommendation		
<p>The verified air quality modelling completed for the Phase 3 assessment has concluded that there are exceedances of the limit values along PCM link 26047 up to and including the year 2026.</p> <p>In completing the assessment for this SRN PCM link, National Highways has considered a range of measures to support compliance in the shortest possible timeframe. These measures have included speed management, which is predicted to bring forward compliance with the limit value by one year, and bus retrofit.</p> <p>In addition, when a decision around the Greater Manchester CAZ has been reached the Audit Reports will be updated at that time taking into account the impacts attributed to the CAZ.</p> <p>Currently further work is proposed to establish whether the footpaths within 15m of the SRN PCM link can be re-routed in this locality.</p>		
Supporting Activities		
JAQU Comments		

Notes:

*Distance corrected monitored concentration (14_M56_J4-3_NB_N) in 2019 and projected annual mean NO₂ concentrations using Defra's Roadside NO₂ projections (LAQM.TG(16))