

## Audit Summary Report

						<b>IN PHASE 1</b>
<b>PCM Link</b> 7701	<b>Road/Location</b> A5103, Manchester City				<b>Area</b> NW	
<b>PCM predictions of NO<sub>2</sub> concentrations (µg/m<sup>3</sup>)</b>						
Year	2018	2019	2020	2021	2022	2023
PCM Modelled NO <sub>2</sub> concentration (µg/m <sup>3</sup> )	33	32	30	29	27	26
<b>Qualifying Feature</b>						
Satellite imagery indicates Public Access within 15m from the PCM link.						
<b>Air Quality Monitoring?</b>						
Yes						
<b>Is the Air Quality Monitoring within 10m, to support Phase 1 decision?</b>						
No						
Air quality monitoring has been undertaken within close proximity of the PCM link over recent years. Monitoring data from 2019 show concentrations approaching and exceeding the annual mean NO <sub>2</sub> concentration of 40µg/m <sup>3</sup> .						
<b>Mitigation required?</b>						
Yes						
<b>Possible Mitigation Options</b>						
<b>KEY:</b>		✘ - Not possible		✔ - Possible		?
						More research required
<b>Option</b>	<b>Feasible to bring compliance forward?</b>	<b>Summary</b>				
<b>Source – reducing emissions from the SRN</b>						
Electric vans	✘	Research completed for Highways England indicates that it would only be possible to bring forward a maximum of 250				

		electric vans over the next few years in any one location. To achieve this would require the creation of a specialist centre.
Traffic Management	?	<p>As part of Phase 1, it has not been possible to look into this measure in any great detail. However, as part of Phase 2 we will work with our traffic and operations colleagues to see if there are any attainable local traffic management measures, beyond speed limits, that could be applied in this locality and are likely to result in different driver behaviours to those seen in the research project.</p> <p>As part of Phase 1 we are unable to determine the likelihood of traffic management being an achievable measure along this PCM link.</p>
Speed Management of 60mph	✘	The speed limit along the A5103 is 50mph. 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	✘	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 Highways England is not able to progress this measure at this time.
<b>Pathway – preventing the emissions reaching receptors</b>		
9.5m high barrier	✘	<p>Emerging evidence based on air quality monitoring research undertaken by Highways England indicates a 2 – 5µg/m<sup>3</sup> reduction in annual mean NO<sub>2</sub> concentrations behind a 9.5m overhanging barrier.</p> <p>This PCM link has been reviewed and based on professional judgement it is not considered possible to build a barrier at this location because of the physical constraints.</p>
Tunnels / canopies, Bypass	✘	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.
<b>Receptor – dealing with concentrations at the affected receptors</b>		

Any other local measures	x	<p><b>Footpaths</b></p> <p>Footpaths are located within 15m along the length of this PCM link. A review of the existing footpaths has identified that there is no potential alternative route for footpath mitigation.</p>
	x	<p><b>Low Friction Road Surfacing</b></p> <p>Highways England has recently undertaken research looking into the difference in measured exhaust emissions for a range of vehicles driven on a section of road with the low friction road surface and hot rolled asphalt. The outcomes of the research concluded there was no statistically significant difference in measured NO<sub>x</sub> emissions between the two road surfaces. Therefore, the empirical evidence does not support this as a measure to achieve compliance in the shortest possible timescales.</p>
<b>Summary</b>		
<p>This audit report has identified:</p> <ul style="list-style-type: none"> <li>Defra's PCM modelling has identified a modelled annual mean NO<sub>2</sub> concentration of 32µg/m<sup>3</sup> in 2019.</li> <li>Public access is located within 15m of the PCM link.</li> <li>Traffic management measures will be considered as part of the Phase 2 assessment to determine whether there are potential measures, which may assist in bringing forward compliance.</li> </ul>		
<p>It is recommended that PCM link 7701 is taken forward to Phase 2 for more detailed assessment as part of Commission No. 3.</p>		
<b>Supporting Activities</b>		
<ul style="list-style-type: none"> <li>Air quality monitoring</li> </ul>		
<b>JAQU Comments</b>		