

Audit Summary Report

									IN PHASE 2	
PCM Link	70007	Road/Location					A66, Stockton-on-Tees		Area	14
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)	42	40	38	36	33	32	30	28	27	
HE Indicative Modelled NO ₂ Concentration (µg/m ³)	30	29	27	26	24	23	22	20	19	
Qualifying Feature										
Satellite imagery indicates Public Access within 15m of the PCM link										
Air Quality Monitoring?										
No										
Is the Air Quality Monitoring within 10m, to support Phase 2 decision?										
No										
Mitigation required?										
Yes										
Possible Mitigation Options										
KEY:		✘ - Not possible			✓ - Possible		? - More research required			
Option	Feasible to bring compliance forward?		Summary							
Source – reducing emissions from the SRN										
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							

		<p>centre.</p> <p>Based on the observed speed of 50mph along this PCM link, it has been calculated that 250 electric vans would equate to an NO₂ reduction of approximately 0.1µg/m³ along this link. As such, the implementation of this measure would not achieve an earlier compliance date.</p>
Traffic Management	✘	A panel of specialists from the air quality team have reviewed regional traffic management options for the 86 PCM links. The panel concluded there are no possible reasonable traffic management solutions for this PCM link.
Speed Management	✘ ¹	The existing speed limit along the A66 is 50mph. Consequently, no reduction in speed limit would provide any improvement in NO ₂ concentrations along this link.
Bus Retrofit	✘ ²	A review of this PCM link using satellite imagery has not identified any bus stops along the route. As such, it is assumed that there is minimal bus usage along this road which will result in no discernible reduction in NO _x emissions and therefore, this measure is not being progressed.
HGV Retrofit	?	A review of traffic data for this PCM link has identified approximately 2,475 HGVs travelling along this link. Theoretically, a HGV retrofit scheme could reduce annual mean NO ₂ concentrations by 0.4µg/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 Highways England is not able to progress this measure at this time.
Pathway – preventing the emissions reaching receptors		
9.5m high barrier	✘	<p>Emerging evidence based on from air quality monitoring research undertaken by Highways England indicates a 2 – 5µg/m³ reduction in annual mean NO₂ concentrations behind a 9.5m overhanging barrier.</p> <p>A review of this SRN PCM link indicates there are no residential properties within 15m of the road along the entire length of this link. The initial step would be to see if it was possible to make changes to the public access to enable compliance and Highways England would only consider a barrier at this location if directed to do so by DfT / Ministers.</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.
Receptor – dealing with concentrations at the affected receptors		

Any other local measures ³	?	<p>Footpaths</p> <p>A footpath has been identified within 15m of the PCM link. A review of the footpath has identified a potential alternative route for the current footpath parallel to the A66, with a proposed Air Quality Walking Route further away from the road.</p> <p>Low Friction Road Surfacing</p> <p>At this time there is no empirical evidence on the effects on NOx emissions and is not being assessed as a measure to support compliance in the shortest timescale possible.</p> <p>Mechanical Filtration</p> <p>There are no residential properties within 15m along this PCM link.</p>
Summary		
<p>This audit report has identified:</p> <ul style="list-style-type: none"> • There is no existing air quality monitoring along the PCM link. • Retrofit HGVs may also support in bringing forward compliance, however a Government led scheme is required for delivery. • A possible Air Quality Walking Route has been identified. The detailed design work to support this activity will be undertaken as part of the Phase 3 assessment, including safety audit, design of advisory posters and siting of route markers. 		
Recommendation		
It is recommended that PCM link 70007 is taken forward to Phase 3 for more detailed assessment.		
Supporting Activities		
As part of the Phase 2 assessment it has been identified that there may be a need for additional air quality monitoring to help support the outcomes of the indicative air quality modelling along this PCM link. The need for any monitoring will be confirmed early in the Phase 3 assessment.		
JAQU Comments		
<p>¹ Legal requirement to make a Temporary Traffic Regulation Order</p> <p>² Requires JAQU to deliver</p> <p>³ Subject to legal consideration of proposed local options</p>		