

1. Programme
  - a. Improved air quality (NO<sub>2</sub> and PM concentrations) at the exceedance locations
  - b. Improved public health
2. Bus gates along A53 King Street and A50 Victoria Road
  - a. Improved journey times for buses and taxis during the AM and PM peaks
  - b. Traffic redistribution across the network without creating new sites of NO<sub>2</sub> exceedance
3. Bus retrofit
  - a. Lower exhaust emissions of NO<sub>x</sub>, PM and other pollutants released from buses

Encourage shift to more sustainable modes of transport

Benefits Metric	Key Outcome	Method	Realisation Measure		Dependencies - activity or trigger required to confirm realisation	Risks to realisation	Benefit Owner	Benefit review date	Date realised / achieved
			Baseline Value	Target Value					
Reductions in NO2 concentrations in the shortest timeframe possible so to ensure compliance with the Ministerial and EU Direction	Achieve the statutory limit values for roadside NO2 concentration limits at the exceedance locations in the shortest possible time	Quantifiable - measured through diffusion tubes across North Staffordshire	3 sites exceeding recommended limits of 40 µg/m3	Annual average of < 40 µg/m3 across North Staffordshire (for all sites)	Implementation of the preferred scheme Recording and reporting from diffusion tubes and monitoring stations	Delays to the project programme, such as delay in approval of the FBC or funds to be received Inaccuracies in modelling causing overestimation of compliance levels or underestimating the level of NO2 concentration, as examples	NuLBC, SoTCC, SCC	Dec-22	
Improved health of local citizens and reduced risk of illnesses such as heart disease, lung disease or asthma, as a result of air pollution	Achieve the statutory limit values for roadside NO2 concentration limits at the exceedance locations in the shortest possible time.	Quantifiable - data from Public Health England (PHE) to assess hospital admissions of specific diseases, however, these may not be a direct result of air quality issues and therefore not possible to directly attribute these results to the scheme	Number of hospital admissions for individual diseases that might result from poor air quality	Reduction from original recorded value	Implementation of the preferred scheme resulting in better air quality and therefore fewer air quality related illnesses	Failure to achieve compliance within EU regulations is unlikely to see health improvements in the local area	NuLBC, SoTCC, SCC	Dec-22	
Cost and resource savings to the NHS as a result of fewer hospital admissions from poor air quality	Achieve the statutory limit values for roadside NO2 concentration limits at the exceedance locations in the shortest possible time.	Observable - data from Public Health England (PHE) to assess hospital admissions of specific diseases, however, these may not be a direct result of air quality issues and therefore not possible to directly attribute these results to the scheme			Implementation of the preferred scheme resulting in better air quality and therefore fewer air quality related illnesses	Failure to achieve compliance within EU regulations is unlikely to see health improvements in the local area	NuLBC, SoTCC, SCC	Dec-22	
Improved bus journey quality through the RTPI, CCTV and accessible kerb facilities implemented as the quality of available information will increase, passengers will have an enhanced perception of safety, and accessibility for less able users will improve	Local buses more attractive, encouraging greater use	Quantifiable - data taken from bus operators' ticket sales by service. Increases in patronage may not be as a direct result from the scheme	Total bus patronage by service	Increased bus patronage by service	Implementation of additional RTPI, CCTV and accessible kerb facilities Public perception on bus journey quality drawn out through bus operator ticket sales	Limited behavioural change towards bus usage	SCC, SoTCC & bus operators	Dec-22	
Rerouting of traffic away from the exceedance sites without creating new exceedance locations	Traffic redistribution across the network without creating new sites of NO2 exceedance	Quantifiable - NO2 measured through diffusion tubes across North Staffordshire. Traffic counts measure traffic across individual routes		Annual average of < 40 µg/m3 in areas surrounding original exceedance locations	Traffic management measures at the A53 and A50 and the surrounding areas ensures exceedances aren't experienced anywhere Traffic counts measure the impact of the resulting rerouting	New exceedances are created despite what the modelling anticipated	NuLBC, SoTCC, SCC	Dec-22	
Reduced exhaust emissions released from more polluting, older bus engines	Lower exhaust emissions of NOx released from buses	Quantifiable - number of grants distributed and diffusion tubes to measure air quality across affected routes. Changes in air quality may not be a direct result of the scheme	Number of compliant buses in operation	Number of compliant buses in operation	Bus retrofitting 100% of buses that use Bucknall New Road and 75% of buses along Victoria Road	Bus operators cannot source enough vehicles that can be retrofitted Retrofitting is a short-term solution	SCC, SoTCC & bus operators	Dec-22	
Rerouting of traffic away from the exceedance sites without impacting on the residential streets around Victoria Road	Traffic redistribution across the network without creating new sites of NO2 exceedance	Traffic counts on local residential streets near A50 Victoria Road such as Manor Street	Existing traffic flows on Manor St	Not having a significant increase on existing flows on Manor St	The effectiveness of the traffic management measures being implemented to the west of Victoria Road following the introduction of the bus gate	High levels of re-routed traffic flows following the bus gate opening on Manor St resulting in issues with local residents and schools	SoTCC	Dec-22	
Improved information and communication about air quality and its subsequent impacts	Increased awareness of air quality problem	Quantifiable - Surveys to local businesses and residents			Implementation of the preferred scheme along with the delivery of relevant information and communication to businesses and residents	Failure to deliver adequate level of information and communication to businesses and residents	NuLBC, SoTCC, SCC	Dec-22	