



To: Executive Management Team

Date: 19 January 2016

Subject: Air Quality Plan Interventions BCC

1. Background

- 1.1. In order to support the evidence base for air quality plans submitted to the EU, Defra have sought information from local authorities on action being taken locally to improve air quality. Evidence was provided to Defra in March 2015 which underpinned the consultation on the draft Air Quality Plans in September 2015.
- 1.2. This evidence has been taken forward in full into the final Air Quality Plan submitted to the EU in December 2015.
- 1.3. The individual actions within the evidence base have been reviewed having regards to refining the timescale to implement, the costs and the air quality impact (benefit).

2. Briefing Aims

- 2.1. This briefing note seeks to provide EMT in the form of an action plan, the range of interventions being scoped / undertaken / delivered by various sections within the Council. Each action proposed will follow due procedure for relevant e.g. Cabinet approval, once funding and resources have been established.

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Action	Description and Focus	Timescale to Implement	Air Quality Impact	Costs	Responsibility	Co-benefits / Supporting factors	Examples of initiatives being delivered or proposed in Birmingham.
		Short Medium Long	Low Medium High	Low Medium High			
Road/Highway Infrastructure improvements							
Traffic and parking management	Changes to road layouts and traffic management to reduce general traffic levels and encourage walking / cycling. Experience shows that removing road-space does not just displace traffic, it tends to also reduce it.	Short to Long Term	Medium to High	Medium to High	Local / City Region Authorities Highways England	Safety (from speed or conflict reduction) and public realm improvements. Supporting factors: road layout changes are mandatory for users so quite reliable. Demand management will tend to ensure higher levels of compliance.	Highway Improvements to promote effective traffic management - Road closures e.g. Ladywell Walk, Controlled Parking Zones e.g Central Ladywood, Digbeth, Erdington, Bus Lane Enforcement and bus only roads. City Centre Car Parking Review.
Strategic highway improvements	Widen / build highways to reduce congestion or divert traffic from area of poor air quality. Include widening sections of trunk roads/ motorwaysor bypassing.	Medium to Long Term	Medium to High	High	Local / City Region Authorities Highways Agency	Safety (from conflict reduction). Supporting factors: road layout changes are mandatory for users so quite reliable.	Ring Road Pinchpoints, Dudley Road improvements
Road User Charging (RUC) / congestion charging	Apply to an area, key routes and/or times of day to dissuade non-essential and through-traffic.	Long Term	High	Medium to High	Local / City Region Authorities	Congestion reduction aids journey time/reliability. Supporting factors: RUC regulations ensure higher levels of compliance and therefore AQ benefits more likely to be achieved.	Consideration of potential options as part of Future Council proposals
Public transport improvements –	Aimed at providing efficient public transport interchange points in	Medium to Long Term	Low to Medium	Medium to High	Local / City Region	Co-benefits: congestion reduction from reduced car	Refurbished Birmingham New Street station now

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interchanges, stations and services	the city centre.				Authorities - Bus operators - Train operating companies	traffic. Supporting factors: required investment from train, bus and Local Transport Authority.	open. Proposals to improve Longbridge and University stations linked to LGF. Opportunities to redevelop and Snow Hill station are being explored.
Public Transport Improvement	Birmingham Connected, Movement for Growth & HS2 Connectivity Package Proposals including reinstatement of Camp Hill and Sutton Park rail lines, SPRINT routes and Metro extensions	Medium to Long Term	Medium to High	Medium to High	Government, Local / City Region Authorities - Bus operators - Train operating companies, Network Rail	Co-benefits: congestion reduction from reduced car traffic. Supporting factors: required investment from train, bus and Local Transport Authority.	HS2 Connectivity Package has secured funding for development of a number of schemes to enhance public transport.

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Road Space, Travel & Parking Schemes							
Workplace Parking Levy (WPL)	Annual charge on private, non-residential parking (off-street)	Long Term	Medium to High	Medium	Local / City Region Authorities	Congestion reduction aids journey time/reliability. Supporting factors: regulations will tend to ensure higher levels of compliance.	Consideration of potential options as part of Future Council proposals
Low Emission Zone (LEZ)	Set emission standards for specific vehicles entering a prescribed road or region. Can be focussed by vehicle type: HGV, bus, van, car.	Medium to Long Term	Medium to High	High	Local / City Region Authorities working with: - Highways Agency - Freight industry - Bus operators - Motorist organisations	Co-benefits: may be carbon reduction benefits if stimulates energy efficiency (from low emission vehicles). Supporting factors: more complex enforcement systems are required for LEZ covering multiple vehicle types, to ensure compliance. Simple LEZ, focussed on a local fleet (e.g. bus) can use simpler monitoring and checks.	Feasibility Study into a Low Emission Zone within City Centre underway. Possible exclusion of all vehicles within a specific area that do not meet Euro 6 (or equivalent) emissions limits
Access Management and Re-prioritising road space away from cars	Specific streets or whole city centre with time, weight or purpose restrictions, freeing space for pedestrians, public transport or managed freight/deliveries. Route based improvements to infrastructure for priority (punctuality and reliability). Apply highway and pavement designs that improve efficiency for all road users on key routes (including car, HGV, public transport, cyclists, pedestrians).	Short to Long Term	Medium to High	Medium	Local / City Region Authorities	Congestion reduction (or priority for certain vehicles) aids journey time/reliability. Supporting factors: regulations will tend to ensure higher levels of compliance.	City centre pedestrianisation, reallocation of road space to public transport e.g. Corporation Street, Priory Queensway, Birmingham Cycle Revolution. Road space allocation to facilitate SPRINT proposals on radial corridors.

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Parking enforcement on highway	Focus on where stationary vehicles are causing problems to flow traffic (congestion / delays)	Short Term	Low	Low	Local / City Region Authorities	Co-benefits: congestion reduction, improved road safety. Supporting factors: mandatory nature tends to mean success, if properly enforced.	Ongoing review of parking restrictions and accompanied by relevant enforcement,
Car clubs	Can reduce the number of cars in use and raise emission standards (as new vehicles), including low-emission vehicles where specified.	Short to Medium Term	Medium	Low	Local / City Region Authorities, Employers, Local Communities	Co-benefits: fuel savings, carbon reduction, maintenance and safety benefits. Supporting factors: may require ongoing support from local authorities to maintain scheme, with minimum being allocated parking spaces.	Opportunities to expand car clubs in Birmingham being explored - e.g. in relation to new developments aligned to reduced parking provision and as part of Green Travel Districts
Workplace and Personalised Travel Planning	Providing information and encouraging alternative modes for travel to work. Advice given directly to households to assist those willing to shift mode for commute, education and personal travel.	Short Term	Low	Medium	Employers, potentially supported by Local City Region Authorities	Co-benefits: congestion reduction (or priority for certain road users). Supporting factors: exerting influence down the supply chain can be time-consuming, but viewed as relatively reliable way to achieve impacts.	Examples implemented through Local Sustainable Transport Fund and will form a key element of Green Travel Districts.
Delivery and Servicing Plans (DSP) and freight consolidation and Quiet & out of hours delivery	Based on a review of deliveries and servicing a DSP sets out how to reduce unnecessary (and often duplicated) travel to a site and how to better organise deliveries to suit the receiving organisation. Deliveries made before and after peak traffic hours. Reduces time and variability spent making deliveries, evidence of small fuel	Short to Medium Term	Low	Medium	Employers, potentially supported by Local / City Region Authorities, - Retailers, third party logistics providers	Co-benefits: congestion reduction (or priority for certain road users). Supporting factors: exerting influence down the supply chain can be time-consuming, but viewed as relatively reliable way to achieve impacts.	Review of servicing and deliveries in partnership with Colmore Bid and within Selly Oak Green Travel District.

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	savings.				- Major public sector freight attractors		
Intensive active travel campaign & infrastructure	Encourage walking, cycling and use of public transport instead of private car.	Short to Medium Term	Low	Low to Medium	Local / City Region Authorities - Employers and potentially NHS	Co-benefits: congestion reduction, health benefits. Supporting factors: requires voluntary changes in behaviours.	Birmingham Connected campaigns around city centre developments such as Paradise.
School Travel Plans	Encouraging alternative modes for travel to school by children and carers.	Short Term	Low	Low to Medium	Local / City Region Authorities Education authorities Schools	Co-benefits: health, urban realm utilisation. Supporting factors: requires significant and continued commitment to ensure growth.	All Schools have School Travel Plans. Modeshift stars being introduced to enable schools to pro-actively update and access support for developing travel plans online. National accreditation scheme.
Promotion of walking	Develop a quality urban realm which provides pedestrians with a safe, secure and direct network linking city centre with retail, commercial, leisure and transport locations.	Medium to Long Term	Medium	Low to Medium	Local / City Region Authorities Employers Schools	Co-benefits: health, urban realm utilisation, footfall for businesses. Supporting factors: requires significant and continued commitment to ensure growth.	Continued development of comprehensive active travel routes (utility and leisure) are available for walking and cycling. The walking and cycling network is well maintained incorporating on road segregated facilities, well signed quiet minor roads with reduced speed and off road paths; supported by 20mph limit roll out. Walking Cities Fund of £2 million to promote walking. Improvement to public rights of way

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Cycle network	Improve and extend cycle network in the city with a network of parallel routes including contra-flow cycle lanes, shared use bus and cycle lanes.	Medium to Long Term	Medium to High	Medium to High	Local / City Region Authorities - Commercial partners	Co-benefits: congestion reduction, health benefits. Supporting factors: requires voluntary changes in behaviours.	Birmingham Cycle Revolution
Public cycle hire scheme	Public cycle hire scheme in city to encourage short commutes and link with public transport and work places.	Short to Medium Term	Low	Medium	Local / City Region Authorities - Commercial partners	Co-benefits: congestion reduction, health benefits. Supporting factors: requires voluntary changes in behaviours.	Brompton Dock Hubs implemented in the city centre and UoB within Selly Oak GTD. Big Birmingham Bikes given away 5,000 bikes to deprived communities.
Park & Ride	Encourage Park & Ride use instead of parking in city centres for commuters and longer stay shoppers and visitors.	Medium to Long Term	Medium	Medium to High	Local / City Region Authorities	Co-benefits: congestion reduction. Supporting factors: requires voluntary changes in behaviours, unless twinned with parking management (restraint) in centres.	Expansion of rail based Park & ride sites e.g. Longbridge, Four Oaks, Kings Norton. Consideration of Park & Ride linked to development of SPRINT.
Promote use of rail and inland waterways	Various measures, including dock and rail network developments to increase transfer by rail and water (often combined with less road transport).	Medium to Long Term	Medium	High	Local / City Region Authorities - Network Rail - Canals & Rivers Trust - Commercial port owner	Co-benefits: congestion reduction on roads. Supporting factors: requires capacity on rail lines and competition with road freight.	Council looking at feasibility of moving some freight e.g. biomass using canal network. Opportunities to increase rail freight linked to HS2.

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Low/Zero emission vehicles and infrastructure development							
BCC Green Fleet transition to low/zero emission vehicles and infrastructure.	To build on the BCC Green Fleet Review and Directorate action plans by supporting the BCC fleet transition to low/zero emission vehicles and re-fuelling requirements, through funding opportunities for demonstration, infrastructure development and vehicle lease costs. Current fleet of approximately 950 vehicles, where the priority for transition are Euro 3, Euro 4 and Euro V heavy diesel bin wagons, as well as diesel Tipper trucks, medium- large vans and a large number of small vans.	Short to Medium Term	Medium to High	Low to Medium	BCC Directorates, Fleet Managers	Benefit of providing city leadership for fleet transition and development of low/zero re-fuelling infrastructure for electric , CNG and hydrogen fuel cell vehicles.	Green Fleet Review has been carried out across BCC Directorates and provides a green fleet strategy/action plan for each service fleet. Nissan trail electric ENV 200 car in Adults and Communities (Home Care Team) for 6 months. Nissan electric ENV 200 van in Housing Services for 3 months. OLEV funded electric charge points implemented at 5 BCC sites, and electric cars & small vans funded at 75% lease costs. Current bi-lateral discussions with Directorate Fleet Managers to support transition to low/zero carbon vehicles.
Develop a new Statutory Bus Quality Partnership Scheme	To update the existing SBQPS to improve the bus fleets entering the city centre	Short to Medium Term	Medium	Medium	Local / City Region Authorities - Commercial partners	Co-benefits: congestion reduction	SPQS vision to require all buses to be Euro VI or Ultra Low emission Vehicles (ULEV) within city centre by 2020
Bus fleet improvements	Rapidly decrease average bus emission standards through introducing new Euro VI and zero emission vehicles, low carbon engine solutions or	Medium Term	Medium to High	High	Local / City Region Authorities - Bus operators	Co-benefits: will be immediate NOx reduction benefits. Supporting factors: Zero emission solutions (electric &	BCC collaborating with WM regional Local Authorities with CENTRO to develop ULEV bus delivery plan.

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	exhaust retrofits. Zero emission buses are a priority as they provide 100% emissions reduction will be both in NOX and Carbon.					hydrogen fuel cell) are being prioritised by Regional, UK and the EU funders including OLEV, Horizon 2020, Ten-T and the LEP.	BCC part of a national consortium with London, Aberdeen and Cardiff City Councils to develop scalable zero emission Hydrogen bus production within the UK. BCC providing the leadership for the innovation and implementation of hydrogen infrastructure in Birmingham, to enable the take up of initial 22 buses in Birmingham in collaboration with CENTRO and Bus Operators.
Rapid take up of low emission private cars and Electric Vehicle charging points	Encourage adoption of electric, hybrid and plug-in vehicles.	Short to Medium Term	Low to Medium	Medium to High	Government, - Local / City Region Authorities - Employers - Fleet operators	Co-benefits: carbon reduction benefits if stimulates energy efficiency (from low emission vehicles). Supporting factors: generally needs to fits with plans to renew cars and requires subsidies, given cost and life-span of cars.	The Plugged in Midlands scheme has co-funded large roll-outs of electric vehicle charge point infrastructure In Birmingham. Exploring opportunities to expand the network and lever in additional public and private sector funding.
Development of Electric Taxi-Only Charging infrastructure.	Encourage the take up of electric private hire and Hackney Carriage vehicles by providing dedicated rapid facilities at Birmingham New Station and Tyseley Energy Park (as main A45 route to/from Birmingham Airport) along with supporting standard charging facilities around the city.	Short to Medium Term	High	Medium to High	Government, City Authorities - Taxi operators - site operating companies, Network Rail & Tyseley Energy Park	Co-benefits- Developing the electric taxi only charging infrastructure provides a longer term solution for 100% NOX reduction in key hotspot areas/taxi ranks. Supporting factors – development of dedicated charging facilities will be powered by renewable energy sources, supporting	Working with Energy Savings Trust on Electric Taxi feasibility. Current business case being developed under OLEV funded initiative leading to a proposed £5m OLEV funding application in March 2016.

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						the growth of the green economy.	
Ultra Low Emission Hackney Carriage retrofit incentives	Give incentives/priority to cleaner private hire and Hackney Carriage vehicles. The Clean Air Zone will impact taxi licence requirements, supporting Licensing to set licence policy in line with Euro VI emissions standards.	Medium Term	Low	Medium to High	Local / City Region Licensing Authorities - Taxi owners and operators	Co-benefits: fuel savings, Nox & carbon reduction, maintenance and safety benefits. Also provides a viable alternative to the initial cost of purchasing an electric vehicle in the short term. Supporting factors: OLEV is providing initial funding to maximise benefits. There is potential of future funding to retrofit more vehicles.	Secured funding to retrofit up to 80 taxis with a Euro VI LPG solution.
Compressed natural gas (CNG) refuelling stations for HGV s and small to large vans.	Support take-up of gas truck and vans through refuelling facilities and demonstrations of vehicles.	Medium Term	High	Medium to High	Government, - Local / City Region Authorities - Employers - Fleet operators	Co-benefits: 100% NOX reduction benefits if –further benefits of significant carbon reduction if bio-methane or hydrogen mixed with CNG is used. Supporting factors: generally needs to fits with investment plans to renew fleets, given cost and life-span of vehicles and need to plan for long-term use of a gas filling station.	Birmingham Blueprint published early 2015- makes the case for CNG stations to support transition of heavy diesel fleets for a wide range of vehicle sectors. BCC led LEP feasibility study covering the development of gas infrastructure - 4 sites including Tyseley Energy Park, Hams Hall, Oldbury and Wolverhampton. Potential for OLEV funding and private sector investment.

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Policy, Planning, Guidance & Best Practice Schemes.							
Development Control-Policy	Section 106 opportunities to limit car parking and ensure good public transport connections and investment in low emission technologies for new developments. Design out the need for vehicular commuting within new builds with mixed use developments. Gain planning contributions to invest in mitigation.	Medium to Long Term	Medium to High	Low to Medium	Planning Authority	Co-benefits: congestion reduction, shorter travel times. Supporting factors: requires consistent and long-term decision making on planning and permissions to develop.	Birmingham has adopted maximum parking standards and this has supported reduced parking provision in a number of new developments, especially in the city centre. Through the planning process car clubs and ULEV infrastructure can also be integrated to ensure that air quality impact of development is reduced.
Development of a Best Practice Guidance on Air Quality and Procurement	To devise a policy for using the procurement power of a LA to incentivise the uptake of cleaner vehicle technology	Short to Medium Term	Medium	Low to Medium	Planning Authority	Co-benefits: congestion reduction, shorter travel times. Supporting factors: requires consistent and long-term decision making on planning and permissions to develop.	Developed as part of West Midlands Low Emissions Towns & Cities Project
Development of a Best Practice Guidance on Air Quality and Planning	To devise a policy for using the planning process to reduce the impact from transport based emissions arising from new development	Short to Medium Term	Medium	Low to Medium	Planning Authority	Co-benefits: congestion reduction, shorter travel times. Supporting factors: requires consistent and long-term decision making on planning and permissions to develop.	Developed as part of West Midlands Low Emissions Towns & Cities Project
Development of Air quality & Planning policy	Planning applications assessed in a strategic manner for impact on local air quality	Short to Medium Term	Medium	Low to Medium	Planning Authority	Co-benefits: congestion reduction, shorter travel times. Supporting factors: requires consistent and long-term decision making on planning and	Developed as part of West Midlands Low Emissions Towns & Cities Project

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						permissions to develop.	
Fleet efficiency and recognition schemes	Voluntary fleet recognition and advice schemes that encourages HGV, bus, coach and van operators to move towards a cleaner fleet and improve fuel efficiency.	Short Term	Low to Medium	Medium	Local / City Region Authorities - Other public sector fleet operators	Co-benefits: potentially lower carbon where there are overlaps. Road Safety benefits e.g. reducing HGV and cycle conflicts. Supporting factors: required strong support and involvement from procurement.	BCC working with TfL to become Fleet Operators Recognition Scheme accredited and embed Construction & Logistics Operators Cycle Safety Scheme into procurement practices.
Driver training and ECO driving aids	For improved fuel efficiency and emissions from car, taxi, van and bus/ coach drivers through better driving habits. Sometimes supported by in-cab technology or monitoring.	Short Term	Low	Low	Local / City Region Authorities - Freight Quality Partnership - Employers	Co-benefits: fuel and vehicle safety benefits for operators/owners - wider road safety benefits. Supporting factors: voluntary nature tends to mean ongoing monitoring is required to re-train drivers who slip back. Road Safety Improvements.	Council works in partnership with driving schools and freight operators to deliver training.