

Annex 3

Results of AQAP3 stage 1 screening

HEADLINE MEASURES

Direct actions that can be implemented now to reduce emissions from existing vehicles:

Measure 1: Development and implementation of a Clean Air Zone (CAZ)

Measure 2: Development and implementation of anti-idling measures

Measure 3: Further development of Eco-stars fleet recognition scheme

FUTURE MEASURES

Plans and actions that will be implemented over the next 6 years to reduce emissions:

Measure 4: Planning and delivery of CNG refuelling infrastructure in York

Measure 5: Reducing emissions from freight

Measure 6: Development and implantation of LES based planning guidance

Measure 7: Reducing emissions from taxis

Measure 8: Planning and delivery of strategic EV charging network

Measure 9: Reducing emissions from CYC fleet

SUPPORTING MEASURES

That will help to win ‘hearts and minds’ and encourage local engagement in AQAP3 delivery

Measure 10: Marketing and communications strategy

Measure 11: Local incentives for low emission vehicles and alternative fuel use

Measure 12: Attracting low emission industries, business and jobs to York

That will continue to tackle congestion and deliver sustainable transport improvements




Measure 13: Modal shift and network improvement measures

That will deliver other air quality improvement measures

Measure 14: Regulation of industrial and domestic emissions





Measure 15: Provide more green infrastructure in the city

Table key

Impact		Cost	
	Positive impact	£	< £10,000
	Neutral impact	££	>10,000 < 50,000
	Negative impact	£££	>50,000 < 100,000
		££££	>100,000

Measure 1	Development and implementation of a Clean Air Zone (CAZ)		
Key intervention			
Setting of differential emission standards for buses entering the inner ring road based on frequency of bus entry.			
Expected outcome			
82% of bus movements on inner ring road will be electric (zero emission) by 2018.			
Target			
Emission sources		Local buses	
AQMA's where emissions are expected to reduce due to this measure		City centre	Fulford Salisbury Terrace
Key Actions		Responsibility	Target date
(a) Develop a roadmap for low emission buses		CYC	completed
(b) Develop draft proposal for CAZ and consult with bus operators		CYC	ongoing
(c) Implement CAZ		CYC	2018
(d) Work with operators to secure funding / loans for vehicle upgrades		CYC	ongoing
(e) Monitor impact of CAZ on local air quality and emissions		CYC	ongoing
Estimated implementation cost	Direct costs to CYC (implementation and enforcement) = £TBA Cost of bus upgrades to meet requirements =£ TBA		
Estimated emission / fuel savings	Every electric bus introduced into the CAZ will completely remove local emissions of NO ₂ and PM ₁₀ and reduce CO ₂ emissions by approx 35 tons.		
Proposed funding streams	Routine operator investment Green Bus Fund bids	Developer contributions Cleaner Bus Technology Fund bids	
Related LES measures	9G,9I,8J,8L,4J		
Links to council plan	Improving air quality, healthy lives, efficient and affordable transport, environmentally sustainable city		
Expected impacts	overall	comment	
Local economy		Low emission buses will improve the image of the city with positive implications for tourism and inward investment	
Feasibility		Similar schemes already in place in Oxford and Norwich. Electric P&R scheme already operational in York.	
Congestion		No change to bus numbers, may be a slightly positive impact if electric buses appear more attractive to current car users or fares reduce as a result of fuel savings	
Capital costs	££££	Upgrading of buses involves high costs but where possible these will be met or offset by grant applications	
Revenue costs	£	After initial scheme set up resourcing costs will be low	
Local air quality		Zero emission buses will result in significant emission reductions for NO _x and particles across the city, especially in AQMA's	
Greenhouse gas emissions		Reduced emissions of CO ₂ in York. Less CO ₂ produced from generation of electricity needed to run electric buses than that generated by equivalent diesel bus engines. Use of green electricity tariffs can improve this further.	
Planning and development		Improved air quality offers more opportunity for city centre living. Zero emission buses lessen environmental impact of increased demand on public transport from population growth. Contributions towards low emission buses can be sort from developers	
Socio-economic		Impact on bus fares currently unknown. Some may pass on fuel cost savings to reduce fares, others may pass on cost of purchasing newer or retrofitted vehicles and increase fares	
Communities		No loss of bus services anticipated as a result of this measure. May accelerate provision of easy access buses on some routes. Will improve public health and the environment.	
Public perception		Replacement of older diesel buses with newer, cleaner, quieter buses likely to have positive implications	
Other benefits		Reduced noise from vehicles, improved passenger experience	

Measure 2		Development and implementation of anti-idling measures	
Key intervention			
Engagement with vehicle operators to highlight economic and environmental impacts of idling.			
Expected outcome			
Reduced idling emissions			
Target			
Emission sources		Local service buses, coaches, HGVs	
AQMA's where emissions are expected to reduce due to this measure		City centre	
Key Actions		Responsibility	Target date
(a) Undertake anti-idling feasibility study		CYC / consultant	completed
(b) Develop draft proposal and consult with stakeholders		CYC	2015
(c) Draw up delivery programme for anti-idling measures		CYC	2015
(d) Implement anti-idling measures		CYC	To be determined
(e) Evaluate impact of anti-idling measures		CYC	Ongoing after implementation
Estimated implementation cost		£34,500 (based on 3 years with enforcement), less without enforcement	
Estimated emission / fuel savings		At 5 busiest service bus locations in York estimated savings per annum of 1,526kg NOx, 36kg PM ₁₀ , CO ₂ 46555 kg and 17949 litres of fuel (assuming no idling from buses over 1 minute). Actual savings anticipated to be much higher if enforced at all locations and inclusive of all vehicle types.	
Proposed funding streams		To be determined	
Related LES measures		4B, 4F	
Links to council plan		Improving air quality, healthy lives, efficient and affordable transport, environmentally sustainable city	
Expected impacts	overall	comment	
Local economy		Reduced idling will improve the image of the city with positive implications for tourism and inward investment.	
Feasibility		Similar schemes already in place around the UK eg. North Lincs, Croydon, Scotland, Dudley	
Congestion		May help to discourage waiting which could assist congestion	
Capital costs	£	Some small costs associated with signage - possibly from Better Bus Area 2 Fund TBC	
Revenue costs	£	Staffing costs – possibly from Better Bus Area 2 Fund TBC	
Local air quality		Reduced emissions will have positive impact on local air quality	
Greenhouse gas emissions		Significant reduction in local CO ₂ emissions	
Planning and development		Improved air quality offers more opportunity for city centre living. Anti-idling measures will help reduce impact of increased bus services associated with population growth.	
Socio-economic		No implications	
Communities		Will help protect public health and improve the environment.	
Public perception		Control of idling emissions will reduce complaints about this issue and create a safer and more pleasant environment.	
Other benefits		Will assist bus operators to enforce their own policies and could result in considerable fuel savings and reduced operating costs. Reduced noise from idling vehicles.	


Measure 3	Further development of ECO-stars fleet recognition scheme		
Key intervention			
Provision of advice and encouragement to fleet operators to help them reduce emissions from their fleets through the use of better driving techniques, improved fuel management and vehicle upgrading			
Expected outcome			
Reduced emissions from fleet vehicles			
Target			
Emission sources	buses, coaches, HGVs, LGVs (possible expansion to taxis)		
AQMAs where emissions are expected to reduce due to this measure	City centre	Fulford	Salisbury Terrace
Key Actions	Responsibility		Target date
(a) Implement ECO-stars scheme in York	CYC / consultant		Completed (March 2013)
(b) Evaluate impact of current ECO-stars scheme	consultant		Completed December 2014
(d) Investigate future funding for ECO-stars	consultant		ongoing
(e) Draw up action plan for ECO-stars beyond 2014 (if funding is obtained to continue the scheme)	CYC / consultant		December 2015
Estimated implementation cost	Eco-stars currently funded until December 2015 – additional costs approximately £30,000 annum		
Estimated emission / fuel savings	Total for whole scheme is unknown. Figures are available for some individual operators.		
Proposed funding streams	To be determined		
Related LES measures	3A,4A,6A,3C,4E,6G, 7F,3E,4H,5G,6L,7N		
Links to council plan	Improving air quality, healthy lives, efficient and affordable transport, environmentally sustainable city, encouraging and supporting a green economy		
Expected impacts	overall	comment	
Local economy		Improved driving behaviour and cleaner vehicles will improve the image of the city with positive implications for tourism and inward investment. The implementation of ECO-stars fleet roadmaps can result in considerable fuel cost-savings for local operators allowing them to become more competitive	
Feasibility		Eco-stars is already operational in York.	
Congestion		No impact on congestion	
Capital costs		Scheme already operational no further capital costs anticipated	
Revenue costs	£££	Staffing /consultancy costs associated with continuing the scheme beyond Dec 2015	
Local air quality		Reduced emissions will have a positive impact on local air quality	
Greenhouse gas emissions		ECO-stars membership also delivers reductions in emissions of greenhouse gases both in York and the wider areas travelled through by scheme operators	
Planning and development		Eco-stars membership can help offset the impact of increased economic activity and population growth.	
Socio-economic		ECO-stars is free to join and participate in. It is therefore equally accessible to all fleet operators as long as they are willing to provide the necessary fleet data.	
Communities		No implications	
Public perception		Improved driver behaviour and cleaner vehicles likely to have a positive impact on public perception of buses, coaches and HGVs.	
Other benefits		Eco-driving techniques and the introduction of newer and alternatively fuelled vehicles can help reduce the noise impact of traffic	

Measure 4	Planning and delivery of CNG refuelling infrastructure in York		
Key intervention			
Providing the infrastructure required to enable fleet operators to run their vehicles on compressed natural gas (CNG) and / or bio-methane which both offer reduced emissions of local and global air pollutants.			
Expected outcome			
Increased uptake of CNG and bio-methane as an alternative fuel within local fleets			
Target			
Emission sources	Local service buses, coaches, HGVs, LGVs (potential for expansion to other vehicles e.g. taxis)		
AQMAs where emissions are expected to reduce due to this measure	City centre	Fulford	Salisbury Terrace
Key Actions		Responsibility	Target date
(a) Investigate feasibility of establishing a CNG refuelling plant in York and potential demand levels		CYC / external consultant	Completed March 2015
(b) Work towards securing external investment in a CNG refuelling plant		CYC / external consultant	Ongoing
(c) Deliver a CNG refuelling plant in York		CYC / external consultant	To be determined
Estimated implementation cost	To be determined – likely to be privately funded		
Estimated emission / fuel savings	A vehicle running on CNG has significantly smaller emissions of NO ₂ , PM ₁₀ and CO ₂ compared with a diesel equivalent. Exact reductions depend on the type of conversion, size of vehicle. Even greater reductions in CO ₂ arise from use of bio-methane (gas derived from anaerobic digestion).		
Proposed funding streams	Private investment, Developer contributions, Grant schemes		
Related LES measures	2F,2G,2H,3D,3F,6N,6O,7M,8J,9E		
Links to council plan	Improving air quality, healthy lives, efficient and affordable transport, environmentally sustainable city, encouraging and supporting a green economy		
Expected impacts	overall	Comment	
Local economy		Reduces operator transport costs, creates new industry and jobs, allows late night deliveries and improvement of public realm, can help facilitate development of freight consolidation facilities, industrial units and office space.	
Feasibility		CNG refuelling plants already operational in Leeds and Sheffield	
Congestion		Quieter operation of CNG vehicles may allow some deliveries to occur later at night or earlier in the morning helping to free up road space during peak delivery periods.	
Capital costs	££££	High capital costs involved but should be able to attract private investment	
Revenue costs	££	Some CYC staffing resources required to deliver the project but will be met from existing staffing resources. Longer term resource costs will be met by private operator.	
Local air quality		CNG and bio-methane produce less NO _x and PM	
Greenhouse gas emissions		CNG and bio-methane offers considerable CO ₂ savings compared with diesel engines. Bio-methane can be produced from digestion of waste materials.	
Planning and development		Work is ongoing to try and secure a site for CNG refuelling infrastructure within the Local Plan allocations	
Socio-economic		Presence of CNG / bio-methane refuelling will offer cheaper and cleaner fuel to fleet operators which in turn should help reduce the cost of local goods and services.	
Communities		No implications	
Public perception		May be some local objections to development of refuelling infrastructure.	
Other benefits		Reduced vehicles noise levels, potential diversion of waste from landfill or incineration to produce bio-methane.	

Measure 5		Reducing emissions from freight		
Key intervention				
Introduction of delivery and servicing plans for major organisations and key streets in the city and provision of a freight transshipment centre (FTC)				
Expected outcome				
Reduction in the number and size of delivery vehicles entering the city centre and other AQMAs. More deliveries being made by foot, cycle or low emission vehicle.				
Target				
Emission sources		HGVs, LGVs		
AQMAs where emissions are expected to reduce due to this measure		City centre	Fulford	Salisbury Terrace
Key Actions		Responsibility		Target date
(a) Undertake a freight improvement study		CYC / external consultant		Completed (June 2013)
(b) Draw up an action plan for freight improvement based on finding of freight improvement study. To include mechanism and timescale for delivery of a FCC.		CYC (CS)		TBA
Estimated implementation cost		TBA		
Estimated emission / fuel savings		TBA		
Proposed funding streams		Private investment, Grant funds		
Related LES measures		3B,9A,9C,9E		
Links to council plan		Improving air quality, healthy lives, efficient and affordable transport, environmentally sustainable city, encouraging and supporting a green economy		
Expected impacts	overall	comment		
Local economy		Removal of some HGVs from the network and rescheduling of deliveries would improve reliability of deliveries for local businesses and create a more pleasant environment for shoppers and visitors. FTC would create new jobs.		
Feasibility		FCC centres are operational in Newcastle and Bath. Ongoing discussions with a logistics company,		
Congestion		Would help tackle city centre congestion particularly in shopping streets outside foot street hours		
Capital costs	££££	Scheme would need considerable investment from private sector		
Revenue costs	£££	Staffing and operation of the FTC.		
Local air quality		Reduced HGV emissions will have positive impact on local air quality.		
Greenhouse gas emissions		Reduced HGV emissions will have a positive impact on greenhouse gas emissions		
Planning and development		The Local Plan recognises the need for freight consolidation facilities		
Socio-economic		No implications		
Communities		No implications		
Public perception		Removal of queuing HGVs from city centre in the morning will improve public realm.		
Other benefits		Removal of large HGVs from the city centre will help protect historic buildings. CNG refuelling and freight consolidation potentially can be linked together to provide delivery to city centre by low emission CNG vehicles.		

Measure 6	Development and implementation of LES based planning guidance		
Key intervention			
Development of local planning guidance that will require developers to fully demonstrate the emission impact of their development, calculate emission damage costs and provide emission mitigation in the form of on-site low emission measures and/or contributions towards the provision of wider low emission infrastructure			
Expected outcome			
Minimisation of development related emissions and financial support for low emission infrastructure projects			
Target			
Emission sources	Development related transport and vehicles that service new developments e.g buses, refuse collection		
AQMAs where emissions are expected to reduce due to this measure	City centre	Fulford	Salisbury Terrace
Key Actions		Responsibility	Target date
(a) Embed low emission requirements into draft LDP		CYC	Completed
(b) Develop new LES planning guidance		CYC	Completed July 2015
Estimated implementation cost	No additional costs outside current staffing resources to develop guidance. Additional staff may be required to implement guidance.		
Estimated emission / fuel savings	These will be calculated and reported per development. The cumulative emission savings per annum are likely to be very large for NO _x , PM and greenhouse gases.		
Proposed funding streams	No additional funding required for development of guidance note		
Related LES measures	2F,2G,1M,1G,2B,2C,2H,2I,2A,2D,2E		
Links to council plan	Improving air quality, healthy lives, efficient and affordable transport, environmentally sustainable city, encouraging and supporting a green economy		
Expected impacts	overall	Comment	
Local economy		Effective management and mitigation of development related emissions will help maximise development opportunities.	
Feasibility		LES based planning guidance is already adopted and in use in Bradford. Other documents are at an advanced stage of development e.g. West Midlands, Sussex	
Congestion		No impact on congestion	
Capital costs		No capital cost implications	
Revenue costs	££	Staff costs associated with assisting developers to comply with the new guidance and to check the accuracy and effectiveness of emission impact assessments and mitigation plans. In the longer term may need to increase staffing levels	
Local air quality		Emission mitigation measures should help minimise further deterioration in local air quality as the result of development and may result in air quality improvement in some cases.	
Greenhouse gas emissions		LES planning guidance will also help reduce greenhouse gas emissions	
Planning and development		LES planning guidance principles already embedded into draft Local Plan. Enables low emission measures to be installed into new developments	
Socio-economic		Developers may add on cost of emission mitigation to property purchase / rental costs which may exclude some buyers/ users	
Communities		Enables low emission measures to be installed into new developments	
Public perception		Provision of low emission vehicle infrastructure, low emission vehicles and travel planning measures on new developments will make developments more attractive to the end users and offer opportunities to showcase low emission measures to the wider population of York.	
Other benefits		Contributions towards low emission public transport, service vehicles and other low emission infrastructure will have positive air quality and climate change benefits beyond development sites and help to achieve a general improvement in public transport. Developers will have a clear indication of what is expected from them reducing the amount of pre-planning discussion required.	

Measure 7	Reducing emissions from taxis		
Key intervention			
Introduction of incentives and licensing requirements that will encourage replacement of older diesel taxis (hackney and private hire) with newer hybrid vehicles. There are currently 750+ licensed vehicles operating in York.			
Expected outcome			
Removal of older diesel vehicles from taxi fleet			
Target			
Emission sources	Hackney and private hire taxis (particularly diesel vehicles)		
AQMAs where emissions are expected to reduce due to this measure	City centre	Fulford	Salisbury Terrace
Key Actions	Responsibility		Target date
(a) Develop a local incentive for the uptake of hybrid vehicles in the taxi fleet	CYC		In operation
(b) Secure funding to continue hybrid taxi incentive	CYC		ongoing
(c) Review emission standards for taxis	CYC		Completed July 2015
(d) Consult on revised emission standards for taxis	CYC		December 2015
(e) Adopt new emission standards for taxis	CYC		April 2016
Estimated implementation cost	TBC		
Estimated emission / fuel savings	A hybrid taxi produces approx 8 tonnes per annum of CO2 less than a diesel equivalent and has considerably lower emissions of NOx and PM10. 5% of the taxi fleet have already been converted to hybrid or electric through the existing grant scheme.		
Proposed funding streams	OLEV funding bid being developed		
Related LES measures	5A,5B,5C,5D,5E,5F,5G,5H,5I		
Links to council plan	Improving air quality, healthy lives, efficient and affordable transport, environmentally sustainable city		
Expected impacts	overall	comment	
Local economy		A cleaner taxi fleet will improve the image of the city with positive implications for tourism and inward investment. Use of hybrid vehicles offers considerable fuel cost-savings for local taxis operators.	
Feasibility		Hybrid taxi incentive has been very successful to date	
Congestion		No impact on congestion	
Capital costs	££££	A high level of capital investment is needed to incentivise replacement of the majority of the taxi fleet with hybrids. Grant funding is needed to meet this cost.	
Revenue costs	££	Currently being met through existing resources, any significant expansion of the scheme would require further resourcing.	
Local air quality		Reduced emissions will have positive impact on local air quality	
Greenhouse gas emissions		Reduced emissions will have a positive impact on greenhouse gas emissions	
Planning and development		Cleaner taxis can help offset the impact of increased economic activity and population growth.	
Socio-economic		May be some increased vehicle purchase costs for new drivers but these are offset as far as possible by provision of local vehicle grants. Drivers should experience significant fuel cost savings over lifetime of vehicle ownership.	
Communities		Need to ensure an adequate number of wheelchair accessible taxis remain in the fleet. Electric taxis are cheaper to run so could reduce costs.	
Public perception		Cleaner, quieter vehicles likely to have a positive impact on public perception of taxis.	
Other benefits		Reduced noise levels from late night taxis, newer vehicles improve taxi fleet image	

Measure 8	Planning and delivery of strategic EV charging network		
Key intervention			
Planning and provision of a strategic network of EV charging points to maximise the uptake of electric and plug-in electric hybrid vehicles in the city.			
Expected outcome			
Increased uptake of electric vehicles			
Target			
Emission sources	Buses, LGVs, taxis and cars (fleet and privately owned)		
AQMAs where emissions are expected to reduce due to this measure	City centre	Fulford	Salisbury Terrace
Key Actions		Responsibility	Target date
(a) Provide fast charge public EV charging capacity in CYC car parks		CYC	Achieved (October 2013)
(b) map existing EV charging infrastructure and identify further requirements needs		CYC	Completed March 2015
(c) Provide rapid charge EV charging facilities		CYC	5 in place by July 2015
(d) Develop a strategic approach to obtaining EV charging on new developments linked to EV infrastructure map		CYC	Ongoing
(e) Pursue provision of privately owned EV charging points in areas where a need has been identified		CYC	Ongoing
Estimated implementation cost	10 fast chargers already provided in CYC car parks, £232,500 for 7 rapid chargers has already been secured, with 5 already in place.		
Estimated emission / fuel savings	Total impact of implementing EV charging is difficult to quantify due to uncertainties over electric vehicle uptake but for every conventionally fuelled vehicle replaced local emissions of NO _x and PM ₁₀ are eliminated.		
Proposed funding streams	Developer contributions / Local sponsorship / provision of open use points / grants		
Related LES measures	2A,2B,2C,2D,2E,2H,2I,4D,5B,B,6C,6D,6E,6M,8F,8J		
Links to council plan	Improving air quality, healthy lives, efficient and affordable transport, environmentally sustainable city, supporting a green economy		
Expected impacts	overall	comment	
Local economy		Good EV charging network provides EV drivers with more confidence to visit York for business or leisure trips and may influence destination choice. Development and maintenance of EV charging network creates jobs. Switching to EVs can offer considerable fuel and tax savings to local businesses and residents.	
Feasibility		Public EV charging and a pay as you go back office system already in place in York	
Congestion		No impact on congestion	
Capital costs	££	Major capital costs already met through external grants. Future infrastructure provision needs to be met through developer contributions, local sponsorship and further grants.	
Revenue costs	££	Revenue costs associated with operating the back-office systems to support public EV charging. As EV ownership increases revenue costs will be offset by profit made from electricity sales to become cost neutral or better.	
local air quality		EVs have a positive impact on local air quality as zero emission at point of use	
Greenhouse gas emissions		Electric vehicles will have a positive impact on greenhouse gas emissions especially if power is obtained through green tariffs.	
Planning and development		LES planning guidance principles already embedded into draft Local Plan including requirement for EV infrastructure on new developments.	
Socio-economic		Provision of a strategic EV network opens up the option of EV ownership to more people. Initial vehicle purchase price may currently be a barrier to some people.	
Communities		Those unable to afford an EV will not be able to benefit from the provision of EV charging infrastructure but will be free to continue using their existing vehicles	
Public perception		Initial concerns about need for EV charging infrastructure expected to decrease and become more positive as the public begin to recognise the benefits of EV ownership.	
Other benefits		Widespread EV vehicle uptake will reduce traffic noise levels.	

Measure 9	Reducing emissions from CYC fleet		
Key intervention			
Further reduction in emissions from CYC fleet by reducing total mileage, using lower emission vehicles and encouraging better driver behaviour.			
Expected outcome			
Reduction in NO _x and PM ₁₀ emissions from CYC fleet vehicles and those operated on behalf of CYC (including staff owned vehicles). Reduced CO ₂ emissions and significant fuel cost savings should also be achieved.			
Target			
Emission sources	CYC owned vehicles, CYC staff owned vehicles (grey fleet)		
AQMAs where emissions are expected to reduce due to this measure	City centre	Fulford	Salisbury Terrace
Key Actions	Responsibility		Target date
(a) Introduction of further electric and hybrid vehicles into CYC fleet	Fleet manager		Ongoing
(b) Trial of 'Light Foot' system to reduce excessive breaking and acceleration	Fleet manager		Completed 2014
(c) ECO-driver training for CYC staff	Fleet manager		All LCV drivers to be trained within 2 years. Other staff to follow.
(d) Further use of route optimisation tools to reduce total mileage and emissions	Fleet manager		Ongoing
(e) Further reduction in grey fleet emissions and introduction of a CO ₂ emission limit for personal vehicles eligible for mileage payments	Fleet manager		Ongoing
Estimated implementation cost	TBA		
Estimated emission / fuel savings	TBA		
Proposed funding streams	Fleet renewal funding, grants		
Related LES measures	4C,4G,5C,5F,6F,6K,7A,7B,7C,7D,7E,7F,7H,7J		
Links to council plan	Improving air quality, healthy lives, efficient and affordable transport, environmentally sustainable city		
Expected impacts	overall	comment	
Local economy		A cleaner CYC fleet improves city image and reduces operating costs. Uptake of new technology can promote local green job creation.	
Feasibility		There are already a number of low emission vehicles within CYC fleet and links to car clubs are well established. Good progress has already been made with reducing grey fleet trips.	
Congestion		May reduce unnecessary vehicle journeys.	
Capital costs	££££	Requires investment in new vehicles. Where possible this will be offset using grant funding for alternatively fuelled vehicles.	
Revenue costs		Fleet improvements to be delivered by existing staff.	
Local air quality		A cleaner CYC fleet will contribute towards improving local air quality	
Greenhouse gas emissions		A cleaner CYC fleet will help contribute towards reducing local CO ₂ emissions	
Planning and development		A larger CYC fleet will be needed to service an expanding population and new developments. Cleaner CYC vehicles will help reduce the impact of a growing population.	
Socio-economic		No implications	
Communities		Fleet improvements help to protect the health of vulnerable residents	
Public perception		A cleaner CYC fleet improves public perception of CYC and may encourage uptake of low emission vehicles by others	
Other benefits		Alternatively fuelled vehicles can provide a better driving experience for operator, potential for considerable financial savings for CYC	

Measure 10	Marketing and Communications Strategy	
Key intervention		
Raising awareness of air quality and health issues and providing information and advice on the purchase and use of low emission vehicles		
Expected outcome		
Increased awareness of the health impacts arising from vehicle emissions and behavioural change in relation to the purchase and use of low emission vehicles		
Target		
Key Audiences	Local residents, businesses and visitors	
AQMAs where emissions are expected to reduce due to this measure	No direct impact but will support wider AQMA improvement measures	
Key Actions	Responsibility	Target date
(a) Develop a marketing and communications strategy	CYC EPU and public health	TBA
(b) Undertake a public information campaign	CYC EPU and public health	TBA
(c) Upgrade JorAir website	CYC EPU and public health	TBA
Estimated implementation cost	£45,000 (air quality grant)	
Estimated emission / fuel savings	Not quantifiable	
Proposed funding streams	Air quality grant (secured funding)	
Related LES measures	1A,1B,1C1D,1E,1F,1H,1I, 1J,1K,1L1N,8A,8B,8I	
Links to council plan	Improving air quality, healthy lives, efficient and affordable transport, environmentally sustainable city	
Expected impacts	overall	comment
Local economy		Increasing awareness of air quality and health issues and providing advice can help reduce sick days and reduce pressure on local health facilities. Savings made on personal transport costs may result in more spending in other areas eg. shopping, eating out.
Feasibility		Air quality and health campaigns are taking place in other cities
Congestion		Campaign will link to existing I-travel York sustainable travel initiatives.
Capital costs		AQ grant funding has been secured to support this work
Revenue costs		To be met from existing staff resources and grant fund
Local air quality		The campaign will encourage investment in cleaner vehicles that will help reduce emissions of local air pollutants
Greenhouse gas emissions		The campaign will encourage investment in cleaner vehicles that will help reduce emissions of CO ₂
Planning and development		Not applicable
Socio-economic		Campaign will provide economic advice based on vehicle choice and access to grants
Communities		Campaign will provide information and advice on the impact of poor air quality on health
Public perception		A successful campaign will be perceived as worthwhile and informative.
Other benefits		Potential for increased support for CYC work on air quality and transport issues

Measure 11	Local incentives for low emission vehicles and alternative fuel use		
Key intervention			
Providing incentives for the purchase and use of low emission vehicles by residents, visitors, commuters and businesses			
Expected outcome			
Increased uptake of low emission vehicles by residents, visitors, commuters and businesses			
Target			
Key Audiences		Residents, visitors, commuters, businesses	
AQMA where emissions are expected to reduce due to this measure		City centre	Fulford Salisbury Terrace
Key Actions		Responsibility	Target date
(a) Develop a low emission vehicle incentive plan to include parking incentives, vehicle purchase incentives and vehicle use incentives		CYC	June 2016
(b) Implement low emission vehicle incentive plan and report against delivery timescales within it.		CYC	Ongoing beyond June 2016
Estimated implementation cost	TBA		
Estimated emission / fuel savings	TBA		
Proposed funding streams	To be investigated		
Related LES measures	5E,6N,6I,8F		
Links to council plan	Improving air quality, healthy lives, efficient and affordable transport, environmentally sustainable city		
Expected impacts	overall	comment	
Local economy		Financial savings made through purchase and use of low emission vehicles will reduce fuel costs for users leading to improved competitiveness for local business and greater consumer spending in other areas e.g. leisure, shopping etc. Low emission vehicles will help improve public realm with benefits for tourism and inward investment. Links to an "Oyster" type card	
Feasibility		The incentives will be innovative and there will be previously untested risks and challenges associated with implementation.	
Congestion		No impact on congestion	
Capital costs	£	There may be some small capital costs relating to signage, leaflets, point collection cards etc	
Revenue costs	££	Provision of incentives will have some ongoing revenue costs e.g. potential loss of parking income, provision of rewards etc.	
Local air quality		Increased uptake of low emission vehicles will have positive implications for local air quality	
Greenhouse gas emissions		Increased uptake of low emission vehicles will have positive implications for greenhouse gases	
Planning and development		Some incentives may be able to be linked to developer emission mitigation measures	
Socio-economic		Can be applied to walking, cycling, public transport and low emission vehicle use to ensure all positive behavioural changes are rewarded and not limited only to those able to afford low emission vehicles.	
Communities		Incentives to be accessible to all, including non-drivers and those with disabilities	
Public perception		Opportunities for financial or material gain are likely to be viewed positively by the majority	
Other benefits		Incentives can be linked through to tourism and inward investment opportunities	

Measure 12	Attracting low emission industries, business and jobs to York	
Key intervention		
Promotion of York as a supportive and welcoming environment for low emission businesses and industries, including the provision of relevant education and skills development.		
Target		
Key Audiences	Potential inward investors and existing low emission businesses and industries. Educational establishments and other training providers.	
AQMAs where emissions are expected to reduce due to this measure	No direct impact but will support wider AQMA improvement measures	
Key Actions	Responsibility	Target date
Creation of a designed 'green hub' development area to encourage investment by 'green' and 'low emission' industries	Make it York	ongoing
Creation of more high value / high productivity jobs in the 'green' business sector	Make it York	ongoing
Estimated implementation cost	Facilitation by existing Make it York staff	
Estimated emission / fuel savings	Not quantifiable	
Proposed funding streams	To be investigated	
Related LES measures	1C,6D,6H,7I,8A,8C,8D,8G,8L	
Links to council plan	Supporting green jobs	
Expected impacts	overall	comment
Local economy		Development of new job and training opportunities
Feasibility		York has already successfully marketed itself as a 'science city' a similar approach can be take to place an emphasis on low emission / green technology
Congestion		Inward investment may result in traffic growth, but this can be minimised through the use of sustainable sites and good travel planning.
Capital costs		Small levels of additional investment may be needed to support promotional and marketing activities. Larger capital projects such as provision of new training facilities are likely to be met through private investment or partnerships with other organisations.
Revenue costs		Measures to be facilitated by existing Make it York staff resources and partner organisations
Local air quality		Presence of low emission industries will help raise the profile of the Low Emission Strategy and promote further use of low emission vehicles and renewable energy sources. This will help reduce emissions of local air pollutants
Greenhouse gas emissions		Presence of low emission industries will help raise the profile of the Climate Change Action Plan and promote the use of low emission vehicles and renewable energy sources. This will help reduce emissions of greenhouse gases.
Planning and development		Opportunities for low emission industries can be incorporated into the planning system
Socio-economic		Creates new high value / high productivity jobs and training opportunities
Communities		Employment and other opportunities will be available to all
Public perception		Creation of new job and training opportunities likely to have a positive impact
Other benefits		Opportunities to divert waste from landfill and incineration if gas industries can be attracted to the area. Potential for increased uptake of wind and solar energy production at a local level.

Measure 13		Modal shift and network improvement measures		
Key intervention				
Continued application of modal shift and congestion reduction measures through Local Transport Plan 3, Better Bus Area and Local Sustainable Transport Fund initiatives. Capital funding for larger transport infrastructure interventions such as an upgrade of the Outer Ring Road, providing an alternative route for city centre through traffic, Bus improvement measures and a further P&R site at Clifton Moor are dependent on the success of the £83.5m West York Plus Transport Fund bid.				
Target				
Emission sources		All vehicles		
Key audiences		walkers, cyclists, public transport users, motorists		
AQMA's where emissions are expected to reduce due to this measure		City centre	Fulford	Salisbury Terrace
Key Actions		Responsibility		Target date
Continued delivery of I-travel York sustainable travel programme which includes walking, cycling and public transport improvements, personalised journey planning, provision of travel information, promotional events etc. http://www.itravelyork.info/		Sustainable Transport Service		On going
Implementation of Access York Phase 1 - delivery of P&R sites at Poppleton and Askham, improvements to the A59/A1237 roundabout and creation of bus priority route		Sustainable Transport Service		Completed
Public Transport schemes. City centre bus stop improvements, off bus ticket machines, interchange improvements, Real Time Information provision.		Sustainable Transport Services		On going
Estimated implementation cost		Access York £22.7m, BBAF £2.5m, LSTF £4.6m. New funding from BBA2 Approx. £1.2m up to 2017/18		
Estimated emission / fuel savings		Not quantified		
Proposed funding streams		LTP3, LSTF, Major Schemes Funding, Better Bus Area, Local Growth Fund (Dependent on Strategic Economic Plan bid by LEPs)		
Related LES measures		9F,9L,9R		
Links to council plan		efficient and affordable transport		
Expected impacts	overall	comment		
Local economy		Reduced congestion and improved public transport improve the public realm and support economic growth		
Feasibility		Measures are included in existing CYC policies		
Congestion		LTP3 aims to control congestion increases by encouraging use of sustainable modes. LSTF programme aims to increase cycling levels by 20%, walking by 10% and bus use by 10%		
Capital costs	££££	To be confirmed. Major Transport interventions such as an upgrade of the Outer Ring Road, Bus improvement measures and a further P&R site at Clifton Moor are dependent on the success of the £83.5m West York Plus Transport Fund.		
Revenue costs	££	To be confirmed. £1.2m from the Better Bus Area 2 package will provide revenue resource to support Public Transport in the City. Continuation of the LSTF project beyond 2014/15 is dependent on the success of a bid to the DfT in March 2014.		
Local air quality		Congestion reduction and sustainable transport measures support local air quality improvement		
Greenhouse gas emissions		Congestion reduction and sustainable transport measures support greenhouse gas reduction		
Planning And development		Measures to reduce congestion and encourage sustainable travel can help offset traffic impact of new development		
Socio-economic		Some measures may improve access to some areas of the city for some users		
Communities		Modal shift measures support provision of accessible transport for all		
Public perception		Some measures to reduce congestion and improve access for public transport may be unpopular with the general public.		
Other benefits		None identified		

Measure 14		Regulation of industrial and domestic emissions	
Key intervention			
Control of emissions to air from PPC regulated industries, enforcement of Clean Air Act provisions in relation to dark smoke and smoke control areas			
Target			
Emission sources		Industrial and domestic point source emissions	
AQMA where emissions are expected to reduce due to this measure		City centre	Salisbury Terrace
Key Actions		Responsibility	Target date
(a) Active regulation of industries subject to PPC regs		CYC Public Protection	ongoing
(b) Active enforcement of dark smoke offences under Clean Air Act		CYC Public Protection	ongoing
(c) Active enforcement of smoke control areas		CYC Public Protection	ongoing
Estimated implementation cost		Ongoing costs delivered by existing staff resources	
Estimated emission / fuel savings		Not quantified	
Proposed funding streams		Existing staff resources	
Related LES measures		Wider air quality measure not related directly to LES delivery	
Links to council plan		Improving air quality, healthy lives, environmentally sustainable city	
Expected impacts	overall	comment	
Local economy		EPU provides advice and support to local industries to help them to meet emission regulation requirements. This can also reduce costs.	
Feasibility		All measures are currently ongoing and resourced	
Congestion		No impact on congestion	
Capital costs		No capital costs	
Revenue costs	££	Ongoing CYC staffing resources only	
Local air quality		Control of domestic and industrial emissions helps to protect and improve local air quality	
Greenhouse gas emissions		Control of domestic and industrial emissions helps to reduce and control greenhouse gas emissions	
Planning and development		No issues arising	
Socio-economic		Legislation applies to everyone irrespective of socio-economic status. Large fines can arise if offences take place.	
Communities		Legislation exists to protect the health and environment of local people	
Public perception		Most people are generally supportive and comply with controls on industrial and domestic emissions	
Other benefits		Control of smoke can help to avoid occurrence of smoke nuisance and odours and identify occurrences of illegal waste disposal	

Measure 14	Provide more green infrastructure in the city		
Key intervention			
Provision of more green infrastructure to remove pollution from the environment			
Target			
Emission sources	All		
AQMAs where emissions are expected to reduce due to this measure	City centre	Fulford	Salisbury Terrace
Key Actions	Responsibility		Target date
(a) Develop green infrastructure SPD	City Strategy		ongoing
(d) Investigate inclusion of green infrastructure in York BID	York BID		To be determined – BID still in development phase
Estimated implementation cost	Not known		
Estimated emission / fuel savings	Not quantified		
Proposed funding streams	Existing staff resources/ developer contributions		
Related LES measures	Wider air quality measure not related directly to LES delivery		
Links to council plan	Improving air quality, healthy lives, environmentally sustainable city		
Expected impacts	overall	comment	
Local economy		Providing a more attractive environment may encourage more visitors to the city	
Feasibility		A similar approach is already taken in many other cities. A green wall is in place at Marks and Spencer on the York Vanguard site.	
Congestion		No impact on congestion	
Capital costs		Provision of green infrastructure requires significant investment. Most of this investment could be obtained from developers / local business sponsorship.	
Revenue costs	£	Trees and other green infrastructure require significant ongoing maintenance including pruning and leaf collection.	
Local air quality		In the right conditions certain species of plant have been shown to improve local air quality	
Greenhouse gas emissions		Plants remove CO ₂ from the atmosphere.	
Planning and development		Green infrastructure can enhance new developments	
Socio-economic		Green infrastructure is free to be enjoyed by all	
Communities		Green infrastructure can provide meeting places and places to play	
Public perception		Green infrastructure improves the appearance of the urban environment	
Other benefits		Green infrastructure has been shown to have many other health and well being benefits, provides shade in summer months and provides habitats for wildlife	