



Department  
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Food & Rural Affairs

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## **Examples of Air Quality Action Plan Measures**

**June 2013**

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# 1 Introduction

- 1.1 Defra have provided grant funding to Local Authorities in England with Air Quality Management Areas, to support projects which aim to improve the air quality conditions. In 2011/12, Defra provided over £3 million in funding to local authorities, covering 77 projects, with a further £3 million in 2012/13, funding 71 projects. Some of these projects are now complete and this report presents a brief overview of ten projects, in the form of short case studies.
- 1.2 These case study reviews are intended to help disseminate useful information on the methodology, outcomes and issues arising. They do not necessarily represent best practice, but allow other local authorities to see the type of work that is being carried out to improve air quality, and to understand some of the issues that arise and the ways that they can be overcome.
- 1.3 This report focuses on projects that are largely completed, and therefore is weighted towards some of the smaller projects, with the more complex projects still underway. The exception is the case study for the City of York Council project, which is not yet complete, but is included because it is using a novel approach to traffic and emissions modelling.
- 1.4 The case studies summarised in this report are set out in Table 1.

**Table 1: Case Studies**

Theme	Local Authority	Case Study Project
Low Emission Zone (LEZ) / Low Emission Strategy (LES)	Oxford City Council	Integrated Emission Assessment Framework, including an Integrated LES
	City of York Council	An alternative approach to traffic and emissions assessment, for a LEZ Feasibility Study
Greener Transport (non - LEZ)	Chichester District Council	Cycling Interventions
	Gedling Borough Council	ECO Stars Fleet Recognition Scheme
	London Borough of Merton	Smarter Driving Training for Council Staff
Communication Projects	Brighton & Hove City Council	Wood Burning and the Clean Air Act

Theme	Local Authority	Case Study Project
	Colchester Borough Council	'Love ur Car' Campaign
	Corporation of London	Vehicle Idling and Air Quality Awareness Campaign (2010/11) and CityAir – Engaging the Business Community (2011/12)
	London Borough of Camden	Air Quality and Health Perceptions Study
	South Lakeland District Council	'Go Easy' in Kendal Marketing and Media Campaign

1.5 While the case studies largely speak for themselves, a summary of the key issues and findings is provided in Section 4: Conclusions.

## 2 Approach

- 2.1 The case studies in this report were identified and developed using information provided to Defra by the local authority in the Project Plans and Progress Reports, as required under the Air Quality Grant programme. Information was also obtained through direct discussions with the project managers.
- 2.2 The aim has been to provide information on the more interesting aspects of a project, which could range from the methodology, for example a new approach or the roll out of an existing project, to the outputs, such as a communication strategy and options. Several projects faced problems and the case studies identify the steps taken by the local authority to address these problems, thereby providing useful ideas to help others with similar issues.

### 2.1 Defra Air Quality Grant Reports

- 2.3 As part of the Air Quality Grant Programme, local authorities must submit a detailed project plan and an annual progress report on their projects.
- 2.4 The Project Plan must include information on the aims and objectives of the project, the project team, and the various work packages and tasks, with proposed outputs, milestones, timescales, and success criteria. It must also assess the key risks to the project and identify mitigation measures. Dissemination and knowledge transfer of project methodology and findings is a key element of any Air Quality Grant funded project, and the local authority must outline their plans for this.
- 2.5 The Progress Report provides an update on the project, or, where the project is completed within the year, provides a final report. This summarises the progress made on the project, including any issues, problems or delays that occurred during the year. It also provides the local authority with an opportunity to highlight key findings.
- 2.6 These reports are reviewed as part of the Grant Programme, to ensure the projects are delivering value for money for Defra's funding, in terms of delivering robust and useful projects in an appropriate timescale. They are also used to identify projects and aspects which may be of interest to other local authorities.
- 2.7 In addition, where separate reports have been produced as part of the project, these are often submitted as additional evidence to Defra. Examples this year

have included a summary report on the project findings, technical reports from the local authority's consultants and survey results.

- 2.8 These various reports have been reviewed to identify key information on methodology, outputs and issues for this report.

## **2.2 Discussions with Local Authorities**

- 2.9 Each case study was discussed with the project manager and, in some of the more complex cases, with their consultants.
- 2.10 This provided additional information on the methodology, including any amendments that occurred during the project. The discussion covered some of the issues faced in the project, what the barriers were and how they addressed them, and what the Local Authority found to be the most useful element or tool in delivering the project. It also allowed the project managers to identify what they thought might be of most interest to their colleagues in other local authorities.
- 2.11 The discussion also covered additional benefits from the grant, such as bringing in match funding from the local authority or external funding organisations.
- 2.12 The outputs from the project were identified and, where possible, links to published reports have been included in the case studies. The next steps for the projects were also discussed. In some projects these next steps are already underway, while in others, various options are being considered, subject to political will and/or funding.
- 2.13 The information provided by the project managers was vital in developing case studies which would be of use to local authorities and others. Contact details for some of the project managers can be found in Section 5.

## 3 Case Studies

3.1 The following case studies are included in this section:

- LEZ / LES
  - Oxford City Council: Integrated Emission Assessment Framework, including an Integrated LES
  - City of York Council : An alternative approach to traffic and emissions assessment for a LEZ Feasibility Study
- Greener Transport (non-LEZ)
  - Chichester District Council: Cycling Interventions
  - Gedling Borough Council: ECO Stars Fleet Recognition Scheme
  - London Borough of Merton: Smarter Driving Training for Council Staff
- Communication Projects
  - Brighton & Hove City Council: Wood Burning and the Clean Air Act
  - Colchester Borough Council: 'Love ur Car' Campaign
  - Corporation of London: Vehicle Idling and Air Quality Awareness Campaign (2010/11) and CityAir – Engaging the Business Community (2011/12)
  - London Borough of Camden: Air Quality and Health Perceptions Study
  - South Lakeland District Council: 'Go Easy' in Kendal Marketing and Media Campaign



### Description of the Project

This project was designed to create an Integrated Emissions Assessment Framework (IEAF) which would cover both air quality and climate change emissions and help to establish what emission reduction options are available to the authority. It included building a database and assessing the data requirements and issues involved in revising the draft Low Emission Strategy (LES) for Oxford.

This project took a novel approach to a LES, covering all key sources of air pollution and climate change emissions in the city of Oxford. This 'whole picture' approach is an interesting example of joined up action to address air quality and climate change.

Oxford City Council's air quality team led this project, with the involvement of the Low Carbon Oxford (LCO) team. It ran from January to September 2012, and was awarded a grant of £35,000. The additional costs (£12,900) were provided by the LCO programme at Oxford City Council.

### Methodology

The IEAF is designed to assess the emissions of both air pollutants and carbon dioxide across all sources in Oxford, and a key element was the construction of an integrated emissions database. The Framework also aims to support the development and assessment of an integrated LES, which addresses both types of pollution.

The work to develop the Framework included:

- a review of transport emissions (based on the existing Oxford Emissions Inventory);
- a gap analysis of data requirements for assessing and monitoring the measures in the draft LES;
- the construction of an Integrated Emission Database, which was partially populated where possible, and is designed to allow further data to be included as it becomes available;
- a Low Carbon Oxford report on measuring, monitoring and reporting emissions (this deals exclusively with carbon, but is based on data from this project);
- a summary report on the key points of interest and lessons learnt during the project; and
- a review and further recommendations for the Oxford LES, which will cover both air quality and climate change emissions for all key sources in Oxford.

The project evolved during the early stages, as a proposed task on assessing tools available for quantifying emissions from different emission sources was dropped due to budget constraints. It has focussed instead on constructing the framework and identifying the gaps, with the detailed assessment of tools, methodologies and associated data identified as a potential task for the future.

### Barriers

The greatest barrier faced was a lack of information, both in terms of data and finding out what was available. For example, there was no overall list of projects being undertaken by the Council, which made it difficult to establish what programmes and policy drivers were affecting different emission sources. Even where the issue was known, there were significant gaps in the data, such as the number of biomass boilers operating in the city.

The project was carried out over a relatively short timescale, given its complexity, with several of the tasks overlapping. This allowed some useful iteration between tasks, but also led to some duplication of effort and, on occasion, not having the best data available at the start of a task. The project required detailed management by officers, due to the number of consultants and sub-consultants involved and the need for liaison with other teams within the City Council and other organisations.

The project involved various City Council and County Council departments, either directly in the project team or indirectly, such as providers of transport data. Good communication with colleagues was seen as critical to the project. A significant amount of effort was required to explain and justify the need for the work and the potential benefits to colleagues. It was important to ensure the project was considered a priority by other teams, especially when their contribution was linked to other elements and could have led to delays. This dialogue is still ongoing and is now focused on methods for estimating emission reductions.

## Outcomes

The project produced a report for each task listed in the bullet points above. These internal documents are available on request to Local Authority officers. Some of the key outcomes are listed below.

### ***Review of Air Quality and Transport Emissions***

The project included a review of air quality and traffic emissions, which updated the Oxford City Atmospheric Emissions Inventory. The source apportionment identified that buses are a key source in much of the city centre, but other vehicle types, such as goods vehicles, taxis and cars, are important on other roads. The work flagged up concerns over emission factors, in particular for new hybrid buses under local driving conditions.

### ***Gap Analysis of the Draft LES***

Oxford felt that the gap analysis of the data, especially in relation to the measures in the existing draft LES, was particularly helpful. This assessed each measure within the original draft LES, and identified data gaps, and possible solutions. This clarification of data gaps was useful in focussing priorities and effort in the rest of the project (and in wider work).

### ***Integrated Emissions Database***

The database has been designed to allow data to be added as an ongoing process, and is currently partially populated. The work on the Integrated Emissions Database identified many gaps in the data that could be filled, to provide more robust evidence to support effective action. Populating this database will require further data collection from a wide range of sources, but could be done incrementally. The database has the potential to be customised for use by other Local Authorities.

Oxford City Council is now considering future work, which is likely to decide their priorities for action, including data collection. The project outcomes are also being discussed with other departments across the Council that could benefit from this database and/or help populate it, such as transport planners.

### ***Review and Recommendations for the LES***

The Framework included an analysis and recommendations for the draft LES. It suggested that the LES should be the integrated strategy for the delivery of the climate change and air quality targets, with city-wide emission targets for CO<sub>2</sub>, NO<sub>x</sub> and PM. The suggested target is 'a 40% reduction in the CO<sub>2</sub> emissions footprint and a 50% reduction in the NO<sub>x</sub> and PM emissions footprint of the city from 2005 to 2020'. The LES should focus on three activity areas (Residential, Non-Domestic and Transport) and include three key measures for each sector. Different teams, such as the air quality team and LCO, will be responsible for the various measures. This review also outlines the additional data requirements (and some possible data gathering options) for the proposed measures.

### ***Air Quality and Climate Change Collaboration***

The direct involvement of LCO in an air quality led project is a very positive step to more effective and collaborative working, and could lead to potentially harnessing benefits and avoiding conflicts in air quality and climate change. Their involvement included the production of a report based on common data and the development of recommendations for an integrated LES, with some actions led by LCO. There are plans for the two teams to continue working together on implementation of the integrated LES, once adopted.

## Next Steps

The Integrated Emissions Assessment Framework and database have already been used to help develop a revised LES and Air Quality Action Plan. These are currently in draft form, waiting for Council approval, and will be published on [Oxford City Council's website](#) when available.

The Framework has also been used to start a discussion on the priorities of Council and the importance of air quality and climate change in the city and potential actions. It is proving to be a very useful talking point to engage with politicians and other relevant teams, such as transport planners.

The air quality team are keen that this framework and dialogue will help lead to a position where the emissions impacts (both air quality and climate change) are quantified for all relevant projects and policy drivers (both within the environment team, and elsewhere). As a first step, the air quality team are asking for the development of a more comprehensive list of relevant projects. A decision to populate (partially or fully) this database will allow more effective action to be taken.

If the database is to be populated, some of the dropped task on assessing tools will be run as part of this work, as the impact of each policy and project on the various emission sources will need to be assessed.

### Description of the Project

Many air quality projects involve making changes to traffic movements, or changing the emissions from individual vehicles. The impacts of these types of projects are usually quantified using traffic data derived from traffic surveys, with assumptions based on national average fleet composition, average speeds and average emissions factors based on Euro standards.

However, there are projects which take a different assessment approach, such as the Low Emission Zone (LEZ) feasibility study project run by the City of York Council (CYC). This grant funded project used a novel approach, Paramics traffic modelling with instantaneous emissions modelling, to assess the impact of the proposed LEZ options. This is the largest project of its kind in the UK.

The CYC project ran from Autumn 2011 and is due to finish in Spring 2013. It was awarded a grant of £40,000, with additional funding provided by CYC. This project also included air quality modelling, a cost benefit analysis and operator engagement. This case study is focussed on this new approach to traffic and emission assessment, which has the potential to give more accurate estimates of impacts.

### Methodology

The aim of this LEZ project was to investigate a city centre low emission bus corridor in York. It focussed on NO<sub>x</sub> emissions, but also considered PM and CO<sub>2</sub> impacts. It considered a number of different bus and coach LEZ entry criteria, with a goal of recommending suitable timescales for implementation. The project also considered economic impacts, such as upgrading costs.

#### *Why take a different approach*

There have been concerns over the accuracy of air quality impact assessments. Research on emission factors for road vehicles found that these do not reflect real world conditions. There is also some loss of accuracy due to the assumptions and generalisations made about the way traffic behaves in cities. Conventional traffic and emission models are based on average traffic speeds, simple road links and national fleet compositions.

The CYC project aimed to provide a more accurate representation of the situation in York. This used a micro-simulation traffic model combined with an instantaneous emissions model to estimate more accurate emissions. These were then used to carry out air quality modelling and a cost-benefit analysis.

#### *Traffic Modelling*

The traffic modelling was carried out using Paramics software. This is a micro-simulation model, which can simulate the behaviour of individual vehicles on the network. It is particularly suited to modelling traffic behaviour on congested road networks, including individual bus routes.

The Paramics model was used to model traffic movements in the city centre, including variations in speed, queuing and congestion. It produced estimates for traffic movements in seven hour-long scenarios (such as the morning rush hour, off peak and night-time), so that different traffic conditions could be accounted for, including periods of free-flow and stop-start (congested) driving.

Building a micro-simulation model of York city centre will improve the traffic modelling of the area for other projects, and is seen as a valuable asset to CYC. The project team included transport planners and traffic modellers, who were involved in the development of this model.

CYC had undertaken detailed traffic counts, combined with Automatic Number Plate Recognition (ANPR) technology, as part of a previous Defra Air Quality Grant project on York's Low Emission Strategy. This provided a detailed fleet profile for York's city centre, which was used here.

#### *Instantaneous Emissions Modelling*

The traffic emissions were estimated using PHEM (Passenger car and Heavy Duty Emissions Model). This model estimated second-by-second traffic emissions of each vehicle, taking into account the vehicle's speed, acceleration or deceleration, any queuing or congestion, and the road geometry and gradient. It also considered the vehicle's age, Euro standard, any abatement technology, engine size and weight.

The data from CYC ANPR survey was used here to provide additional information, on vehicle age, Euro emission standard, and any retrofitted emissions abatement technology.

The emissions model used the same seven hour-long time-slices as the traffic model. These were then

## Methodology

used to compile a 24-hour emissions profile for use in ADMS-Roads.

### ***Air Quality Assessment and Cost Benefit Analysis***

The air quality assessment uses conventional air quality modelling (with ADMS-Roads) to model the traffic and emissions data. The Cost Benefit Analysis uses a standard methodology involving Defra's damage costs. These work packages were due for completion in Spring 2013.

### ***Barriers***

Although small projects, including CYC's [Further Assessment of Fulford Road](#), have been carried out using a combination of Paramics and PHEM, the CYC LEZ feasibility study is the first large-scale project to be assessed using this method in the UK. This novelty has led to some issues and delays.

Considerable effort was required to ensure that the outputs from each model were compatible with the next, e.g. that Paramics outputs were suitable for use by PHEM, and PHEM outputs were compatible with ADMS-Roads. This took several iterations of model runs and caused some delay.

Delays also occurred in the development of scenarios, especially ones with hybrid buses. Modelling the emission rates of parallel hybrid buses under various road and traffic conditions proved very complicated.

The complexity of this project meant that a huge amount of data was produced by the modelling processes. For example, for just the city centre, the total distance travelled by the simulated vehicles exceeded 1 million vehicle kilometres for each scenario. This had to be taken into account at the project planning stage to ensure it would not cause problems.

### ***Lessons Learnt***

This project takes a new approach to air quality assessment, and the final results, when available, may have significant implications for future work.

The technical knowledge gained from this project should allow more effective use of this combination of models in the future. The lessons learnt in developing the scenarios will also be of use to similar projects.

This was a complex project, with a large project team, including CYC officers from a range of departments, and two consultancies. In addition, bus and coach operators were consulted to ensure that practicality and feasibility issues were considered when developing the modelling scenarios. Good communication and early engagement were key to ensuring the project ran smoothly and any issues were addressed.

## Outcomes

### ***Assessing the accuracy of this approach***

The results from the emissions model show a close agreement with the emissions monitored as part of the Remote Sensing project carried out by CYC. This is a rare validation of an emission model, adding confidence in the findings.

The wider project is still ongoing, with the air quality modelling results and cost-benefit analysis due in Spring 2013. As part of this, the air quality modelling predictions will be compared to the monitored air quality data for validation. This process will give an indication on the accuracy of this new approach.

Preliminary draft results suggest that this approach may produce modelling results for the baseline scenario which are significantly closer to the monitored concentrations, compared to conventional assessment methods. However, this cannot be confirmed until the assessment is complete.

### ***Outcomes for the project***

Once finalised, a summary report of the entire project and a briefing paper for Council members will be available on the [JorAir](#) website (CYC's air quality website).

CYC will also have technical notes on the various elements of the project, which will be available on request. These will be on: Background Review, Paramics Model Development; Vehicle Emissions Modelling; Dispersion Modelling; Cost Benefit Analysis; and Operator Engagement.

## Next Steps

A briefing note will also be prepared for Council members on the project, its methodology and findings. This will include cost benefit analysis of the various LEZ options, which will be discussed at a future Council meeting, with a view to taking a decision on the LEZ options for York city centre.

### Description of the Project

The project was designed to promote a modal shift to cycling through a variety of interventions. The Workplace Cycle Challenge was run for the third year in succession. Other initiatives have included specific events, a community travel planning project, bike maintenance classes, cycle confidence training, and improving infrastructure for cycling and involvement in the Chichester Cycle Forum.

The interventions ran throughout the year and Chichester District Council was awarded a grant of £60,300. Other funding has been obtained from different sources outlined below.

### Methodology

The projects have been largely implemented by two officers within Chichester District Council (CDC) working closely with West Sussex County Council (WSCC), bringing others on board for specific initiatives (ranging from members of the public to local bike shops and the police).

The work started with the formation of a Cycling Promotion Group, which includes officers at District and County level who can contribute to smarter choices work, including disciplines such as smarter choices, sports development, health and wellbeing and the cycling officer. It was recognised early on that by taking this approach, more could be implemented than by just one officer working in isolation within CDC.

Initially, funding was obtained from the NHS to support the Workplace Cycle Challenge. Funding from Defra via the Air Quality Grant then paid for a certain amount of officer time to implement some of the above interventions, including the Workplace Cycle Challenge, in subsequent years.

The approach has been to lever small amounts of money from many different sources. This has included funding from County Council budgets, from Active Sussex and various other local sources of money including asking local bike shops to donate prizes, supply discounted accessories, etc. This approach has led to numerous joint initiatives, for example WSCC has donated a number of Sheffield bike stands for free, as a funding match to CDC paying to install them.

CDC has made a conscious effort to work directly with the community, accessing already existing groups such as the Chichester Cycle Forum, to further implement initiatives, which could not be undertaken by the Council alone.

### Outcomes

#### **Workplace Cycle Challenge 2012**

For the Workplace Cycle Challenge 2012, just under 700 participants from 36 organisations, including 113 new cyclists (16.4%), took part. "Try a bike" taster sessions and bike doctor services were provided at a number of locations. Of the bike journeys logged, 2,818 (65%) were for specific journeys rather than leisure or recreation purposes.

A second shorter Cycle Challenge was held in September/ October 2012. To date, 1,895 people have registered for all the Cycle Challenge events (held between 2010 and 2012), of which 315 (16.6%) have been new cyclists. Further information available on the [cycle challenge website](#).

#### **Pedal to Prayers**

Cycle to church events were held at two churches, with a free bike doctor service provided.

#### **School cycling event**

Bike doctor services were provided to Year 6 children prior to their "bikeability" lessons at Jessie Younghusband School.

#### **Community cycle day**

Bikes were provided for the public to try including novelty bikes (tandem and penny farthings). Bike doctor services, information on cycle training, bike maintenance, guided cycle rides and cycle routes were also provided. Over 150 people registered to try a bike and a number of people registered for guided cycle rides, cycle training and bike maintenance classes, as a result of attending the event.



## Outcomes

### ***Bike maintenance classes***

In addition to classes arranged during the Cycle Challenge, four foundation courses and three intermediate courses were also held.

### ***Cycle confidence training***

Two cycle training sessions were held during September 2012 with more likely in 2013.

### ***Bike racks***

In response to a competition in the Council Initiatives magazine, readers were asked to suggest locations for an additional 50 cycle racks. Responses were received and the racks will be installed.

### ***Community travel planning***

A smarter travel choices project took place over the summer of 2012 in a residential area to the south of Chichester. Over 900 residents were sent a travel survey, with responses from around 350 people. A folder of smarter travel information was produced and distributed to those returning the survey. An information day was held where bike doctor services, try a bike and cycle training were on offer. A follow up survey will be sent out in 2013 to ascertain how many residents have changed their travel behaviour.

### ***Ride leader training***

A CTC two day course was attended by 6 volunteers. These volunteers have since assisted with a number of guided cycle rides and it is intended to run a regular programme of guided cycle rides during 2013.

### ***Safer cycling awareness day***

The day involved partnership working with police, community safety and WSCC to make cyclists aware of restricted times of cycling within the City centre. Information was distributed on cycle training, public rides and bike maintenance classes. A bike doctor service and free bike marking were made available.

### ***Publicity initiatives***

In addition to information on the CDC website and social media, a number of press articles were published. Panels promoting cycling were displayed on the side of the refuse vehicles.

### ***Chichester Cycle Forum***

A number of strategic issues were supported by the group and a sub group is working on development of new cycle routes in the District.

### ***Cycle maps***

A number of [maps](#) are available at the Tourist Information Centre and on line.

### ***Chichester Community Car Club***

The car club, largely run by members of the community, now has two cars parked in allocated car parking spaces in East St and West St, Chichester.

### ***Barriers***

In order to help foster good partnership working and any 'silo-ism between the authorities, County and District politicians sit on the Air Quality Working group, to which the Cycling Promotion Group reports.

### ***Enablers***

The Workplace Challenge has provided a database of individuals interested in cycling, which has then been used for promoting other initiatives. This has enabled regular communication with a growing number of members of the public, and makes it easy to target information about the other initiatives listed above.

The project has been successful in leveraging other money from local organisations (as described above), but also, to some extent, from national funding such as the Local Sustainable Transport Fund.

## Next Steps

CDC will continue to focus on cycling initiatives as a politically acceptable, fundable way forward for the action plan. Specific actions for 2013 and beyond will depend on a review of Air Quality Action Plan (which in itself will depend on Low Emissions Zone feasibility work being undertaken at County level).

The Workplace Cycle Challenge will happen this year, the database of interested members of the public should continue to grow, and many of the other initiatives will continue to happen in order to try and influence people's mode of travel within and around Chichester.

### Description of the Project

This project was designed to develop an ECO (Efficient and Cleaner Operations) Stars Fleet Recognition scheme for Gedling Borough Council. The primary aim of the project was to reduce nitrogen dioxide concentrations within the A60 Mansfield Road Air Quality Management Area (AQMA).

The project was awarded a grant of £30,000.

### Methodology

Consultants were used to carry out the project based on existing ECO Stars schemes.

The ECO Stars scheme was originally devised for four South Yorkshire local authorities, using Defra, NHS and Transport funding. It aims to encourage fleet operators to adopt operational and environmental best practice, to help maximise efficiency and reduce their environmental impact, leading to improved local air quality and carbon reduction. Operators who are located, or operate, within the scheme area are contacted and they provide details of their fleet and operations. The scheme administrator then provides a star rating based on current practice and tailored advice on how to improve their performance.

The main focus in the first year was on recruitment of new scheme members from operators in or around the AQMA. This was achieved most successfully by direct contact with potential new members, both from the initial target list and by approaching other well-known fleet operators in the Gedling area. Recruitment included presentations at trade organisation groups and referrals from other ECO Stars schemes.

The scheme started at an inception meeting in November 2011 and was launched in March 2012. The launch was carried out in conjunction with four partners; a local builders merchant, Nottingham City Transport, Trent Barton Buses and Gedling Borough Council. Attendance at the event was targeted and by invitation only.

During the application process, operators supply vehicle details and then a site visit is carried out to discuss operational practices. Members receive a star rating which is published on the Gedling Borough Council website and a 'roadmap' for improvement.

### Outcomes

[A flyer](#), guidance notes and formal application form were compiled by consultants and windscreen stickers produced. Further information about the scheme, including a list of members and their star ratings, is available on the [Gedling ECO Stars website](#).

The scheme now has 21 members; 11 with 5 stars, 8 with 4 stars and 2 with 3 stars.

Early members found the launch event useful, as it allowed them to meet other members and swap advice and experience.

Presentations on the project have been given to groups of local authorities in Nottinghamshire, South Yorkshire and the East Midlands.

#### **Barriers**

No real difficulties were experienced, as the scheme is already formed and running in other parts of the UK.

Some organisations who would have potentially achieved high ratings did not see the benefit to them of joining the scheme, because they are already making efficiencies through fuel savings etc.

Some members have not yet had the resources to make the improvements identified in the 'roadmap'.

#### **Enablers**

Using an existing scheme was very helpful in terms of structure, approach and production of literature. This probably contributed to the relatively short timescale for implementation (5 months from inception to launch).

The consultants were particularly useful in making the relevant contacts with business. In addition, they applied a high degree of persistence which was necessary with some operators to get an application.

## Outcomes

The economic benefits to business made this project attractive to local Councillors, which helped to raise the profile of air quality with them.

The Council found it particularly useful as a district authority to make direct contact with the bus companies. They have also found that becoming members of the ECO Stars Steering Group has been a useful way to gain knowledge of best practice being implemented elsewhere.

Additional potential funding has been identified from the Local Sustainable Transport Fund (LSTF). This was by coincidence rather than design because the LSTF bid had already been submitted. This bid included schemes such as ecodriver training, which overlap with ECO Stars. The intention is to integrate recruitment into the ECO Stars scheme with a range of other business engagement programmes aimed at environmental and transport efficiency across the wider Greater Nottingham area.

### Summary

The project was not particularly innovative as it was based on an existing scheme. However, it has demonstrated how similar projects can be implemented fairly easily elsewhere. It has also identified a potential further funding stream in the LSTF.

## Next Steps

The Gedling ECO Stars scheme has been expanded to include all the other Greater Nottingham authorities using LSTF funding. The Greater Nottingham ECO Stars scheme has recently been launched and an event will be organised soon to publicise the new scheme. Further meetings and/or workshops will be organised as requested by members.

There will also be broader publicity of the scheme to spread awareness and increase membership.

A Guide to Implementing ECO Stars has been developed by the ECO Stars Steering Group to assist local authorities to introduce schemes elsewhere.

A pilot project for ECO Stars Taxis is currently being carried out by Mid-Devon. If this is successful, consideration will be given to implementing it in Gedling.



### Description of the Project

This project was designed to reduce emissions from Council activities, by providing 'smarter driving' training to staff who have to drive as part of their work. This aimed to help drivers reduce fuel consumption and emissions. This project received £4,000 funding from Defra's air quality grant programme, which covered all external costs.

Smarter driving training was provided to 118 staff who drive cars, HGVs and other vehicles, as part of their jobs. The feedback from staff was positive, with many noting improvements in their driving, including reduced fuel consumption. The overall impact on the Council's fuel consumption has not been monitored.

### Methodology

#### *Project Team*

The project was run by the Environmental Health Department with the London Borough of (LB) Merton, with the training provided by Drivesense on behalf of the Energy Saving Trust.

#### *Identifying Drivers*

Around a quarter of all LB Merton staff either use a private car for work-based duties or drive Council fleet vehicles as part of their job. The Council provides parking permits to staff who use their cars for work, which allows them to park anywhere within the borough. This list is held by Human Resources and was used by the project team to identify drivers for training.

#### *Engagement with Drivers*

The project had the support of senior managers, and the invitation to attend training was issued by the Director to staff. The invite emphasised the potential benefits of this training to both the individual and the Council. It offered each driver a specific time for their training session, which could be changed if necessary. This meant that staff had to actively opt out of the training rather than sign up. These three aspects, especially senior management support, were felt to be vital to engaging with the drivers.

The invite was designed to provide all necessary information, but the team found that this was not always read in detail by the drivers. For example, several drivers were unable to carry out the full training on the day, as they did not have their driving licence with them, and the project team dealt with lots of queries.

Although a certain number of training sessions were planned for the various categories of drivers (such as essential car users, HGV drivers and road sweeper operators), the balance of these training sessions was adjusted as the project progressed. For example, fewer car drivers were able and/or willing to take the training than originally planned, so more fleet drivers were trained.

#### *Training*

The training involved one-on-one instruction over three laps of an urban circuit, starting from LB Merton's Head Office. For the first lap, the trainee drives as normal, with guidance on smarter driving from the instructor during the second, and driving taking this into consideration on the third lap. This was generally carried out in a car with an onboard trip computer to monitor fuel consumption, and allow comparison between the 'before' and 'after' laps. However drivers could use their own car if they desired.

The training was carried out from LB Merton's office during work hours, to minimise disruption to the trainees' day and to make it as easy as possible to attend. This was generally appreciated, although it did cause some issues for staff who were not based at the Head Office. There were also problems with congestion during some of the training laps.

The training for the HGVs and other non-car vehicles used tailored circuits near the depot.

#### *Feedback*

The fuel consumption data collected during the training was used to calculate potential benefits, including annual fuel savings and CO<sub>2</sub> emission savings from using smarter driving techniques. These were tailored to each individual, taking into account their type of car, fuel, mileage and their improvements during the training.

Each driver was also asked to complete an online questionnaire about the training several months later.

## Outcomes

### **Impact on Fuel Consumption and CO<sub>2</sub> during Training**

This £4,000 training exercise collected data to assess potential reductions in fuel consumption and CO<sub>2</sub> emissions savings. This is based on the performance during the training, and assumes that this improvement could be delivered throughout the year. This does not take account of external factors, such as traffic levels during the various laps.

- The average improvement during the training was a decrease in fuel consumption of 14.1% (with a maximum improvement of 42.9%).
- The maximum predicted long term benefit for an individual driver was an estimated annual average saving of £1,140 on fuel and 1,870kg less CO<sub>2</sub> emissions each year.
- The total potential saving in annual fuel consumption was estimated to be £23,000.
- The total potential saving in annual CO<sub>2</sub> emissions was estimated to be 39,200kg.

There are no estimates of real savings delivered through improved driving by trainees during the year.

### **Air Pollution Impact**

While the training did not directly assess the impact on emissions of NO<sub>x</sub> or PM, reduced fuel consumption will often lead to reduced air pollution emissions.

### **Driver Feedback**

Several months after the training, each driver was asked to complete a questionnaire. These were generally positive, and showed some retention of knowledge.

- 86% of drivers said they had possibly or definitely changed the way they drive since the training.
- 93% of drivers said they would possibly or definitely recommend the training to others.
- Some drivers felt that there could be wider benefits, as one smoother driver might improve the flow of nearby traffic.
- One driver highlighted an apparent conflict between the 'smarter driver' advice to use a higher gear where possible, and advice he had been given to allegedly be safer by using a lower gear so the resulting whine makes you more aware of your speed. Government advice is to use a higher gear as this is more efficient, and is as safe when combined with being aware of your vehicle and surroundings. Smarter driving has real safety benefits, due to a strong focus on better anticipation.

### **Lessons Learnt**

LB Merton consider this project to have been a success, as it delivered smarter driving training to the staff with potentially the biggest impact at the Council. This resulted in significant improvements on the day, and the majority of drivers who received training had retained awareness of smarter driving techniques over several months.

The staff buy in to the project is seen as particularly positive, with the involvement of staff from across the organisation. The project team are still (one year on) receiving ongoing feedback from some trainees on the benefits of the training. There is also felt to be a wider awareness of environmental issues and of the work of the Environmental Health team as a result of this project.

However, this project required more officer time than originally predicted, despite the training being delivered by an external agency. Organising the training was particularly time consuming, as the project team were the contact point for all queries from the drivers.

## Next Steps

LB Merton is considering potential next steps for this project. This could include:

- publicising the staff training and its benefits, to lead by example;
- further follow up with trainees one year on, to see if they are still using these techniques;
- reminders of techniques for trainees;
- smarter driving information leaflet for new staff, especially those who will drive for work; and
- more training for other drivers (subject to funding), which could include more staff and/or local businesses.

### Description of the Project

This project was designed to increase public awareness of the environmental impacts of solid-fuel combustion and the provisions of the Clean Air Act (CAA).

Anecdotally, the Council considered that biomass (wood) burning was increasing in the City, in part as a result of people aiming to reduce their carbon emissions. Biomass burning results in a conflict between reducing carbon emissions and improving local air quality, as wood burning, particularly in open fires and small stoves, can have far higher emissions of particulate matter and nitrogen oxides (NOx) than gas boilers. It was considered that the potential local air quality impacts and the provisions of the Clean Air Act are poorly understood by most residents. Therefore this project was designed to determine the extent of biomass burning in the City and address the lack of understanding of the local air quality impacts.

The project was awarded a grant of £15,000. Work was carried out throughout 2012.

### Methodology

The key aspects of the project were:

- carrying out public awareness surveys;
- designing and distributing information leaflets;
- making contacts with solid-fuel equipment suppliers and installers, fuel suppliers and chimney sweeps;
- promoting the profile of solid-fuel and air quality issues through local media;
- raising internal awareness of the air quality impacts of solid-fuel burning within the Council.

The project was carried out by the Council's Air Quality Officer and a contractor.

### Outcomes

#### Findings

The public awareness survey and contact with equipment and fuel suppliers and chimney sweeps found that contrary to expectations the most popular way of using solid-fuels in the city is via open fires. Stoves are also used, but more sophisticated solid-fuel boilers are yet to be adopted at any scale in the domestic sector. In addition, it was determined that the stove installation and fuel supply industries are in their infancies – most are small companies and many have other business interests. For effective outreach work it was concluded that it was important to work with the full range of trades to reach all solid-fuel users, i.e. people who fit their own stoves will have no contact with installers, but will deal with fuel suppliers and chimney sweeps. It was also found that there is a healthy market for DIY installations and installation by general builders. Safety issues are far less well understood in the solid-fuel market than they are with gas appliances (HETAS has far less of a profile than CORGI/ Gas Safe). Overall it was determined that understanding of the conditions of the CAA is patchy. There is also no central information point that people can go to for information on the CAA and best practice in solid-fuel use.

#### Outputs

Qualitative outputs of the project include:

- a much better understanding of solid-fuel use in Brighton and Hove and developing trends;
- improved understanding of the issues around modern solid-fuel use; in particular the lack of public understanding of solid-fuel safety was unexpected, and this is likely to provide as large (or larger) driver for future work in this area than the environmental aspects of solid-fuel use;
- much improved contacts within the local solid-fuel industry, which now have a better understanding of Council policy and their views and concerns have been heard by the Council; and
- advice and guidance material to build upon in future work in this area.

The most important outcome of the project is the information leaflet, '[Using Solid-Fuels Safely and Legally](#)'

## Outcomes

and the more detailed material created for the Council's [website](#). The [Smoke Control Area maps](#) have been provided on the website, which should reduce the number of enquiries made directly to the Council.

It is noted that due to the awareness-raising nature of this project it is not possible to quantify reductions in emissions of particulate matter and NOx. However, the project has helped to avoid increases in emissions (especially particulate matter) due to poor solid-fuel practices.

### **Barriers**

The largest problem faced by the project was the 'cottage scale' of the local solid-fuel industry. Most installers and fuel suppliers are small businesses and many have other business interests. The industry is also highly seasonal. These factors made it more difficult to engage effectively with the industry.

The relatively small scale of current solid-fuel use in Brighton and Hove also made it difficult to get a good level of survey completions, which is reflected in the relatively small sample size achieved for the initial survey of solid-fuel users. After this experience it was decided to abandon plans for a second survey to take place after the project was completed, as it was unlikely to provide robust information about the success of the project's information and outreach activities.

### **Enablers**

The design and print of materials was carried out in-house, leading to cost savings (>20%).

Working in conjunction with a contractor enabled this project. Without the Defra grant to fund the contractor's input it would not have been possible to dedicate the necessary time to complete the project.

### **Reports**

The output of most interest to other Councils is the [New 'Using Solid-Fuels Safely and Legally' leaflet](#) and [New solid-fuel online information](#). A research report on Brighton and Hove solid-fuel use has also been produced. The information collected has been used to produce the EPUK document, 'Solid-Fuel and Air Quality: An Update for Local Authorities'

### **Summary**

The material produced for this project could be very reproducible and lessons learnt are likely to apply to many local authorities where small-scale solid-fuel use is increasing. However, the project is likely to have had more influence on particulate concentrations rather than those of nitrogen dioxide.

## Next Steps

The Council are keen to disseminate their leaflet to other Local Authorities. The text in this leaflet and the more detailed website material would be applicable to many Councils with Smoke Control Areas.

It was intended to use outreach work to coincide with the launch of the Renewable Heat Incentive (RHI). However, this was not possible due to the delays to the RHI. The Council intends to carry out additional outreach work when the RHI is launched (anticipated Autumn 2013), if resources are available. The aim will be used to promote the use of non-combustion renewable in the city centre AQMA and solid-fuel systems in the city fringe.

The Council is now looking to include specific measures on solid-fuel use in the Air Quality Action Plan and develop an appropriate planning policy to control developments with solid-fuel installations, particularly in the Air Quality Management Area.

### Description of the Project

This project was designed to raise awareness of, and encourage the use of car sharing, smarter driving techniques and travel planning, with the aim of reducing nitrogen dioxide concentrations. It focused on making car journeys more fuel efficient and promoted car sharing in a fun, innovative and thought provoking way. Car sharing promotion was aimed at the 18-30 age group as this is the most likely group to car share.

The project was awarded a grant of £31,500 and ran throughout 2012. The Colchester Travel Plan Club provided match funding in the form of officer time to facilitate day to day running of the project.

### Methodology

The 'Love ur car' Colchester brand was created. The brand was aimed at the 18-30 age group and appropriate promotional routes selected for this age group. This included a website and two short films on car sharing and smarter driving. The brand was promoted via competition, radio and billboard campaigns, flyers, posters, local newspaper articles, Facebook, Twitter and workplace promotions.

Billboards were located within the AQMAs. A bespoke carshare and smarter driving promotion was aimed at the business community and some of the Colchester Travel Plan Club member organisations.

#### Organisation

The project was managed by the Colchester Travel Plan Club, which is funded by large local employers such as the Council and the University. A digital media company created all the imagery, brand, website and films. Whilst the Council provided support and direction to the project. It was also supported by local councillors.

#### Funding

The Travel Plan Club provided match funding in the form of officer time to manage the project on a day to day basis.

### Outcomes

The main outcome of the project is the creation of a brand that has become well recognised. In particular, a good proportion of those that have seen the promotional material, have taken on-board the smarter driving tips. This brand can continue to be used on an on-going basis for promotion through web, social media and other opportunities, as well as in future campaigns if funding is available.

Subscribers to the [website](#) have been surveyed and Travel Plan Club members will be questioned about awareness of the brand in future surveys. Initial results indicate that 30-40% of people have taken up the efficient driving tips. Awareness of car sharing has increased. Feedback is that a high number of people have seen the campaign and noted that the brand is striking. The strong uptake of this project appears to be as a result of using appropriate communication methods for the targeted group. This included the use of an external marketing company suitable for the target group.

#### Barriers

Some bespoke promotions to Travel Plan Club member organisations, such as the hospital, were carried out during the project however, they were too resource intensive to complete promotions to coincide with the main campaigns for all Travel Plan Club members. However, it is intended that these shall continue to be carried out by the Travel Plan Club.

The follow up campaign planned for autumn was postponed to Christmas due to billboard availability. As specific locations were required it was necessary to wait until all locations were available at the same time. However, this was taken as an opportunity to have a Christmas themed campaign.

The amount of time required to organise the project, deal with media etc. was underestimated. This input was mostly provided by Colchester Travel Plan Club.

## Outcomes

### *Enablers*

Using the Colchester Travel Plan Club to manage the project on a day to day basis made it easier to use external marketing consultants who were not constrained by corporate Council branding requirements. It was felt that the Council and Colchester Travel Plan Club worked well together.

### *Summary*

Approaching the project to encourage car sharing and smarter driving as a marketing campaign, using marketing professionals has been very successful in raising awareness. The material produced and approach used is very relevant for other local authorities. However, the organisational structure, with an independent Travel Plan Club may not be available in other areas.

## Next Steps

The intention is to keep the campaign alive through regular social media updates and other campaigns as and when funding is available. Generic flyers and car stickers are available for use at future promotion opportunities.

Branded car-share bays in town centre car parks and Colchester Station are being introduced. This is another opportunity to raise brand awareness. Match funding for these bays has been obtained from Essex County Council.

When the project is complete, findings will be shared with interested groups, such as ACT Travelwise, and put on the Essex Air website.

Additional grant funding has now been agreed to continue the campaign. This includes funding for a billboard campaign throughout the year and organisation of a flashmob to promote walking for short journeys. This additional funding will help to continue to raise brand awareness and introduce additional themes to the campaign.



## Vehicle Idling and Air Quality Awareness Campaign (2010/11) and CityAir – Engaging the Business Community (2011/12)

Corporation of London

### Description of the Project

#### 2010/11

This project was designed to reduce vehicle idling and raise awareness of air quality, focussing on employees in the City. It included 3 communications projects: one aimed at reducing vehicle engine idling; the second to raise awareness of air quality issues in the City; and the third to incorporate changes to 'London Air' to reflect the new air quality banding system, including production of a public information video.

#### 2011/12

The second phase of the project was designed to build on the earlier work with the business community. The best practice and walking campaigns developed in 2010/11 were rolled out to more organisations, the principals of CityAir were rolled out to neighbouring boroughs and a business procurement guide was produced.

In 2011/12, the project was awarded a grant of £32,000 specifically for the continuation of CityAir. Additional projects were also funded. Supplementary funding has been available from the Council and businesses. Business support has included time input and sponsorship of publications.

### Methodology

#### 2010/11

##### **Reducing vehicle engine idling**

A 3 month publicity campaign was carried out to inform people that the City of London intends to issue fixed penalty notices (FPN) to drivers who refuse to turn off their vehicle engine when asked to do so by an authorised officer. The approach to FPN was agreed with the police and the intention to issue FPNs widely publicised.

The approach was highly focused. Construction sites, businesses and deliveries companies were all directly targeted along with entertainment venues and coach companies. Police Community Support Officers (PCSO) and wardens were used to identify hotspots for idling. These areas were then targeted. Branded air fresheners were produced and issued to drivers when approached and to local businesses.

##### **Air Quality Awareness Campaign**

A marketing consultancy was used to design a set of posters, campaign material and appropriate health messages to work with air quality champions. The campaign was primarily aimed at employees in the City. A communications consultancy was used to engage directly with businesses.

##### **Changes to the London Air website**

Changes were made to the London Air website to provide consistency with Defra's banding system. A short instructional film was produced explaining how to use the index and practical ways to minimise exposure and health effects.

#### 2011/12

Presentations were made to business and sustainability networks and contacts were made with multi-tenanted buildings and building management companies. Further promotion of the retail guidance and building engineer/facilities management guidance was carried out.

CityAir principals were rolled out to neighbouring boroughs by a presentation at the cluster group meeting and individual meetings with interested boroughs. Guidance was provided to two neighbouring boroughs in setting up a similar campaign and a selection of businesses within those boroughs visited.

CityAir walking campaigns were extended throughout the city and support for the campaign was established with Living Streets.

The business procurement best-practice guidance was produced in conjunction with business organisations.

## Outcomes

### 2010/11

It was not necessary to issue any fixed penalty notices because people turned off engines when asked. The number of reports of idling vehicles has reduced.

Best practice documents are available on the [City of London's CityAir website](#).

Air Quality Champions have been identified who have worked with the City of London to develop best-practice guidance and raise awareness within their own industries. This has been beneficial to business in supporting their own Corporate Sustainability and employees wellbeing targets.

The changes to the London Air [public bulletin](#) and instructional [video](#) are available on the [LondonAir website](#).

### 2011/12

A [business procurement guide](#) was produced.

50 organisations (with >40,000 employees) have been actively involved in the campaign.

All actions were completed on time and to budget. This appeared to be as a result of good project management by the Corporation of London.

### Enablers

The funding of professionals to carry out the business engagement programme was seen as essential to the success and was identified as the most cost-effective element of the project.

CityAir is now a recognised brand that can be used in future material. The air quality grant funding was identified as useful seed funding for business engagement and a very good way of encouraging neighbouring boroughs to consider and take forward business engagement. City of London used grant funding to pay for communications consultants to provide a presentation to these boroughs.

The availability of supplementary funding from the Council and businesses has been helpful to deliver additional elements that support and build on the Defra grant project.

### Summary

The use of marketing and business communication professionals has been invaluable to the success of the project. A lot of effort has been put into assisting neighbouring central London boroughs to use a similar approach. Targeting the business community is probably less relevant outside central London.

## Next Steps

The remit to ask drivers to turn off idling engines and issue fixed penalty notices is to be added to next parking attendant contract.

The material produced will be used for future events to maintain awareness of the CityAir brand.

The CityAir programme now has further Defra grant funding to work towards reducing emissions from taxis, creating a mobile phone app and carry out emissions testing.

Five London boroughs have been awarded a Defra grant in 2012/13 to implement CityAir within their borough directly as a result of the work carried out by City of London.



### Description of the Project

A research study was commissioned to understand residents' knowledge and perceptions of Camden air quality. The objectives of the project were to establish a baseline of understanding about air quality in Camden and use this to inform the development of a communications plan and project toolkit. Air quality is a significant issue in Camden, but successful communication of the dangers and how residents can reduce air pollution and protect themselves against the harm is hampered by a lack of understanding of the issue.

The project was funded by a grant of £15,000 which was used to employ consultants. The project ran between December 2011 and September 2012.

### Methodology

A research company was commissioned to undertake the study on behalf of Camden. Quantitative and qualitative research methods were used, including in-person and online questionnaires, and focus groups among the Camden residents. Questionnaires and focus groups were recruited from South Camden (Somers Town) and North Camden (Hampstead) to gain a diverse demographic sample. Somers Town represents a more deprived area of the borough with higher pollution levels and Hampstead represents a more affluent area of the borough with lower pollution levels and a higher rate of car ownership. On-line, and in person surveys were carried out. Questionnaires were sent out via community centres, residents groups, housing associations, a school and a religious organisation. There were 245 responses (124 on-line and 121 paper-based). Focus group participants were recruited from the questionnaire respondents. Two Somers Town focus group meetings were held at Camden Town Hall, two in Hampstead and two groups at the Kingsgate Community Association. Concepts for communicating air quality messages were tested with focus group participants.

### Outcomes

A [project report](#) has been produced which sets out the outcomes.

#### **Knowledge of Air Quality**

When asked what respondents currently know about air quality, more than half knew 'very little', or 'not much' about air quality (52%). They were aware that air quality is generally poor in London and that it has a negative effect on health because of the way it makes them feel. Some of the benefits of improving air quality were also identified by respondents, such as health and particularly breathing benefits, positive impacts on the natural environment and improved quality of life and longevity.

#### **Importance of the Issue**

When asked to rate the importance of air quality, the majority of respondents felt that air quality was a 'very important' (59%) or a 'quite important' issue (33%) to them. Very few indicated that it was unimportant (3%), or that they didn't know (5%). Since residents know that air quality is an important issue they might be inclined to take action, if provided with the right information and resources.

#### **Perceptions of Air Quality**

When respondents were asked what they think are the main causes of air pollution in their area, the majority responded 'motorised vehicles'. Housing (gas boilers) and business/industry were less frequently cited as the main cause of air pollution. When asked who they think should be responsible for improving air quality in their area, the majority of respondents felt that the local authority (72%) or UK Government (70%) were responsible for improving air quality in their local area. Least responsible were the EU (27%) or themselves (29%). This study shows that it might be useful to develop an awareness raising campaign on how individuals can help play a part in improving air quality together with local government. When asked what they can do to improve air quality in their local area respondents most commonly indicated that they can change their travel behaviours. However, almost a sixth of respondents didn't know what they could do to improve air quality and a further 10% indicated that they could do nothing, which the study concluded highlights the need for an informational campaign highlighting what individuals can do to

## Outcomes

improve air quality.

### **Current Behaviours**

When asked how often they use various modes of transport, the majority of respondents indicated that they walk on a daily basis, take a bus/ coach or tube every few days. Respondents were more likely to indicate that they never cycle (73%) or drive (41%).

### **Existing Health Conditions**

When asked if they have an existing health condition that they think is made worse during periods of high air pollution, 40% indicated that they have an existing health condition, with most indicating that this health condition was 'allergies' (49%), 'asthma' (45%) or 'irritable eyes/throat' (41%).

### **Behavioural Segmentation**

The respondents were segmented based on their level of knowledge, how concerned they were about air quality, who they thought was responsible for improving air quality, their current travel behaviours and what, if anything they thought they could do to improve air quality in their local area. The theory suggests that given the right information, resources and social influences at the right time, individuals can move up the segmentation to take actions to improve air quality and protect themselves and their families against the harmful effects. This theory provides a powerful planning tool which can be used to develop communication strategies to influence those most likely to act. In Camden, respondents were segmented into 'unconcerned'; 'sceptic'; 'uninformed'; 'receptive'; 'concerned citizen' and 'advocate'. The biggest group were receptive (42%).

### **Barriers to Change**

The focus groups highlighted that participants were worried that their actions have little impact and there are issues of trust and control around what the Council are currently doing that must be overcome. Any campaign must address issues of impact, trust and control.

### **Influencers to Change**

The focus groups also said that the influencers to change should focus on health and the benefits that air quality brings.

### **Toolkit**

A tailored communication toolkit outlining a package of projects for future delivery was then produced. The words 'Clean Air Plan (CAP)' (together with strapline 'Together we can put a cap on air pollution') were suggested, along with a logo. The CAP campaign aims to make information in Camden readily available to the public, whilst giving individuals the chance to take personal action. A number of campaign ideas have been put forward.

### **Barriers**

Consultants with both air quality and communications expertise were few and far between.

### **Enablers**

The project has helped strengthen the case for further funding, both internally, and for further grants.

## Next Steps

The research has led to the development of a set of communications principles and messages that will be incorporated into on-going work on air quality, both in Camden and across London. So far, the findings have been used to develop a leaflet about a number of environmental issues in Camden, and also used to assess and change messages given on a variable message (LED) sign on Euston Road. The campaign 'Breathe Better Together, which issues media alerts when high pollution levels are forecast has also used the report to develop clear communication messages.

The GLA are currently producing a London-wide website on air quality (complementary to Londonair) which will include specific borough actions and information for the public on air quality. This research undertaken by Camden will be used in tailoring the advice given and how it is communicated. A further campaign called 'Campaign Days' (also supported by Defra air quality grant funding) which is being implemented by Camden, Islington, Croydon and the GLA will further use the outcomes of this research. 'Campaign Days' will bring together those from the air quality management, transport, air pollution forecasting & media communities to provide simple and positive messages for the public, focussing on, for instance, modal transport shift to walking or cycling, home working and 'no engine idling'.

## **'Go Easy' in Kendal Marketing and Media Campaign**

**South Lakeland District Council**

### **Description of the Project**

South Lakeland District Council (SLDC) commissioned a design and communication company to provide a marketing and media campaign that would aim to reduce local car travel in Kendal with an associated reduction in nitrogen dioxide emissions. The project involved a website hosted external to the Council and various interventions linked to the 'Go Easy' campaign including the use of local newspapers, advertising, events, competitions and incentives, social media, cycling incentives and a schools campaign.

The project was funded by a grant of £34,195 which was used to employ consultants. The project ran throughout 2012.

### **Methodology**

A tendering process was undertaken to find a suitable company familiar with the local area, and with experience in this type of campaign. Once appointed, the following methodology was used.

It was decided that the groups targeted needed to be users of travel routes through Kendal and that the main thrust of the campaign should be to reduce car travel (and the corresponding NO<sub>2</sub> levels) rather than promote the health benefits of walking or cycling. Therefore, the following groups were chosen: Businesses on the outskirts of Kendal (with large numbers of workers who commute through the town centre) and social groups that meet at places within Kendal or on the outskirts of town and use cars as their primary form of transport. Cycle users were also included, as they were considered a highly visible group who could enhance the promotion and acceptance of alternative transport in Kendal.

The campaign adopted a name, strapline and brand to ensure that every aspect of the programme had a consistent look, feel and message. Consistency helps build audience recognition and recall of the key messages. The campaign name consciously didn't have any negative associations attached to it (as in references to the high levels of NO<sub>2</sub>) nor was it dictatorial in nature.

The 'Go Easy' concept promotes the idea that using alternative ways of travel (walking, cycling, catching a bus or car sharing) can in fact be the easy option with the word 'Go' being very positive and suggesting movement, direction and freedom. When paired with the word 'Easy' it suggests a calmer, more enticing approach to travel and commuting. The strapline 'Enjoy Kendal's Fresh Air' starts to introduce the reasoning behind the campaign.

The campaign was kept intentionally at arm's length from the Council in order to avoid the public perceiving this was a Council initiative to 'tell them what to do'.

### **Outcomes**

#### ***Newspapers - PR***

Articles promoting the campaign were published in the 'Westmorland Gazette' and the 'South Lakeland' publications. The former generated a high number of comments on its website and was the 'poll of the week'. There were also numerous mentions in local school and business internal communications.

#### ***Advertising and Print***

Adverts were featured in the 'Westmorland Gazette' and the 'Citizen', a free local paper. A large double sided banner was designed and hung across the main street of Kendal by the Town Hall. It was supported by 20,000 A6 postcards distributed through shops/ guest houses/gyms/ workplaces, etc. and by 100 A4 posters and 2 free standing banners that were used at specific points to promote the campaign.

#### ***Competition and Incentives***

The marketing company designed and developed an 'on-line' competition whereby people were encouraged to walk into town over this period and take photos of themselves at certain strategic 'Go Easy' photo points. Photos were then submitted through Facebook, email or Twitter to win one of five £200 vouchers to spend at Kendal Sports.

## Outcomes

### **Social media**

A Facebook page was been set up to promote the 'Go Easy' campaign and a twitter account established.

### **Website**

The website is the main marketing tool of the campaign and promoting this has been the focus of all the other initiatives. The website content includes maps with suggested walks and cycle routes into Kendal, bus timetables, information on case studies and the ability to sign up to newsletters. Businesses and groups are able to download information on how they can set up their own travel plans. A section of the website is being developed with a car sharing option. Targeting businesses and social groups, the site will enable users to enter their details and 'meet up' with others who are interested in car sharing options. This is aimed at specific groups such as those who drop off children at weekly sessions (e.g. Scout groups) or annual or one-off events (e.g. Kendal Mountain Festival).

### **Cycling Incentives**

Cycle skills classes were run over 6 weeks and the [Workplace Cycle Challenge](#) was undertaken. The latter is a free, fun competition that encourages people to discover, or re-discover cycling and helps promote a modal shift from private vehicle use.

### **Schools campaign**

The 'Go Easy' campaign was introduced to the primary school children of Kendal with a 'My Walk to Kendal' competition where children could win a scooter. Each school was informed by email and newsletter about the campaign and was visited in person to explain the campaign.

### **Barriers**

The tendering process was (internally) more difficult than anticipated. The tender needed to be signed off by senior management prior to trying to engage potential tenderers, which delayed the process considerably.

It is recommended that if undertaking a similar project the local authority communications team is on board at an early stage in the process.

The amount of time taken to project manage the process was severely underestimated.

### **Enablers**

The SLDC working group on Air Quality, which includes representatives from other disciplines such as County transport, are open to use the website to advertise other projects, consult the public on particular issues via polls, etc.

### **Further funding**

The initial Defra funded project has led to further funding being obtained.

SLDC have managed to secure funding to keep the project going for the next 12 months (to keep the website updated, advertise the liftshare scheme, and undertake a walking challenge). Funding has come from Local Area Partnership (for the Walking challenge) and also has been obtained from Cumbria County Council, Kendal Town Council and SLDC (funds and officer time).

## Next Steps

The marketing and media campaign 'Go Easy' for Kendal has been designed so that it has longevity at its core. The website will continue to be developed and updated. There will continue to be downloadable information added and updated including the 'Icon of Kendal Map'.

The branding will continue to be used in conjunction with the website, advertising and campaigns such as the Walking Challenge.

The 'Car Share' section of the website will be developed and promoted to various businesses and groups. It is hoped that these initial groups will help to promote the scheme to other groups to join up.

An evaluation of the project is currently underway and due to be completed shortly.

Further information can be found at the ['Go Easy'](#) website.

## 4 Conclusions

- 4.1 The Defra Air Quality Grant Programme has funded a wide variety of projects, with different themes, sizes and complexities. There are similar issues which affect many of these projects, some of which are summarised here.

### 4.1 Communication

- 4.2 Good communications between the project team, including other departments and consultants, were considered to be key to a successful project. Where external groups would be affected by the project, early engagement was highlighted as being helpful in taking the project forward. This included obtaining relevant and timely input and having a productive discussion on the desired outcomes (and later, considering the project results and potential next steps).
- 4.3 For example, early engagement with bus operators in York's LEZ project meant that their issues were taken into consideration while developing the LEZ options and helped ensure accurate data on the buses and their emissions. The bus operators were kept informed of the project findings. The formation of a Cycling Promotion Group in Chichester, which included officers from a range of disciplines and organisations, meant that much more could be implemented than by just one officer working in isolation within Chichester District Council.
- 4.4 There have also been projects where other departments have not wanted to be involved in air quality issues. In those cases, the project outputs have been used as a communication tool, by providing a talking point to start a dialogue, which could lead to action.

### 4.2 Project Management

- 4.5 Most local authorities found that they had underestimated the amount of time required for project management and administration. This included liaison between the project team and consultants, and negotiation with senior management and politicians. There was also some surprise over how much time was needed to deal with project participants and other people involved in the project (such as drivers taking smarter driving training).

### **4.3 Quantifying impacts**

4.6 There continue to be challenges in quantifying the impact of projects which are designed to improve air quality. Several projects considered here used surveys, but while these provided some interesting information, there were often insufficient responses to draw robust statistical conclusions. Where an impact could be assessed, this was often not suitable for converting into an air quality improvement.

### **4.4 Trailblazing Projects and their Rollout**

4.7 Some of the best use of the Defra grant is on projects which successfully trailblaze a new approach or technique, which is then rolled out further within the local authority and to other authorities.

4.8 The City of London project developed the CityAir concept, to work with businesses to deliver simple effective actions to improve air quality, using grant money from 2010/11 and 2011/12. This project has been effective in engaging with businesses, and has since been implemented by other London boroughs. The 2012/13 air quality grant programme has funded the rollout of the CityAir programme to five other London boroughs. The new projects will also allow the CityAir concept to be further developed with extra tools and options to increase its effectiveness.

4.9 The Gedling project is a good example of the roll out of a trailblazing project. In this case, the original ECO Stars project was run by four South Yorkshire local authorities, and part funded by a Defra Air Quality Grant from 2008. Since the original project, the ECO Stars concept has been implemented by several other local authorities, and continues to be refined and improved. For example, another grant-funded project (currently underway in Mid Devon) is developing ECO Stars criteria for taxis.

4.10 It is also possible that other projects could be trailblazers, such as Oxford's approach to an integrated Low Emission Strategy and York's new methodology for traffic and emissions assessment.

### **4.5 Communications Projects**

4.11 The communications projects aimed to raise awareness of air quality issues and/or encourage action. These were considered a success by the local authorities, with improved awareness of air quality issues and the local



communications brand. In order to be really effective, this type of campaign needs to continue to have a presence over the longer term. Some of the communications projects identified this need, and were able to obtain funding from other sources or additional Defra grants to continue the campaign.

- 4.12 To develop an effective communications project, it was considered very useful to work with communications specialists. This approach of using external agencies kept the local authority at arm's length from the communication brand, which was also useful in allowing more flexibility in the development of the brand and its messages.

## **4.6 Developing Further Work**

- 4.13 There were some good examples of the Defra grant funding being used in projects that identified additional funding as part of the project, which allowed the project (or wider programme) to be developed further. These projects were able to use Defra funding to demonstrate their value to the Local Authority or external funding bodies. This is a particularly effective use of Defra's Air Quality Grant.

## **4.7 Dissemination of project outcomes**

- 4.14 Sharing knowledge gained from Air Quality Grant projects is a key aim of Defra's Grant programme. Dissemination of key findings is a requirement of these projects, and it was interesting to see how different local authorities addressed this.
- 4.15 There were some good examples of sharing information, for example on the CityAir project at the City of London. Much of this sharing was at a local level, with neighbouring local authorities.
- 4.16 There is some dissemination of local authority actions, and many of these projects were built on lessons learnt by others. For example, the first task of York's project was to review other LEZs within the UK, and Gedling's project was based on the ECO Stars concept developed elsewhere. However, there are new findings coming out of grant projects all the time, and these too need to be shared more widely.
- 4.17 Most local authorities expressed a willingness to disseminate their findings, but in practice, the dissemination was limited. There were a number of reasons for this, including; limited resources in terms of both officer time and/or budgets to attend

meetings, the lack of a suitable platform, and the lack of political will for promotion of air quality action.

- 4.18 There are a number of options which could help encourage better dissemination, and therefore optimise the effectiveness of the Defra grants. This could include:
- Identifying, or providing, opportunities for dissemination, such as conferences or workshops;
  - Publishing key case studies, such as in this report, to identify the most interesting findings; and
  - Requiring each grant funded project to produce a two page summary document at the completion of the project, which could be made available to all local authorities, either online or through an annual case studies report.



## 5 Acknowledgments / Further Information

- 5.1 Thanks are due to the local authority project managers listed in Table 2 for their help in compiling this report, also to James Tate at the Institute for Transport Studies and Bob Saynor at the Energy Saving Trust.
- 5.2 For further information on the projects explored in this report, please contact the relevant local authority. Details are provided in Table 2.
- 5.3 Table 3 below includes the web addresses for further information. These are also available within the case studies as hyperlinks.

**Table 2: Contacts for Further Information**

Organisation	Main Contact	Contact Details for Further Information
Brighton and Hove City Council	Samuel Rouse	Email: <a href="mailto:samuel.rouse@brighton-hove.gov.uk">samuel.rouse@brighton-hove.gov.uk</a> Tel: 01273 292256 Senior Technical Advisor Air Quality Environmental Protection Team Brighton and Hove City Council Bartholomew House Batholomew Square Brighton BN1 1JP
Chichester District Council	Simon Ballard	Email: <a href="mailto:SBallard@chichester.gov.uk">SBallard@chichester.gov.uk</a> Tel: 01243 534694 Senior Environmental Protection Officer Environmental Protection Chichester District Council East Pallant House 1 East Pallant Chichester West Sussex PO19 1TY

City of London Corporation	Ruth Calderwood	<p>Email: Ruth.Calderwood@cityoflondon.gov.uk  Tel: 020 7332 1162  Department of Markets and Consumer Protection  City of London Corporation  PO Box 270, Guildhall  London  EC2P 2EJ</p>
City of York Council	Andrew Gillah Elizabeth Bates	<p>Email: andrew.gillah@york.gov.uk  Tel: 01904 551532  Email: elizabeth.bates@york.gov.uk  Tel: 01904 551529  City of York Council  Environmental Protection  9 St Leonard's Place  York  YO1 7ET</p>
Colchester Borough Council	Belinda Silkstone	<p>Email: Belinda.Silkstone@colchester.gov.uk  Tel: 01206 282745  Environmental Protection Manager  Colchester Borough Council  Environmental and Protective Services  33Sheepen Rd  Colchester  Essex  C03 3WG</p>
Gedling Borough Council	Brendan Cox	<p>Email: brendan.cox@gedling.gov.uk  Tel: 0115 9013833  Gedling Borough Council  Civic Centre  Arnot Hill Park  Arnold  Nottinghamshire  NG5 6LU</p>

London Borough of Merton	Tamsin Williams	Email: Tamsin.Williams@merton.gov.uk 020 8545 4659 Merton Civic Centre London Road Morden SM4 5DX
Oxford City Council	Roger Pitman	Email: rpitman@oxford.gov.uk 01865252380 Oxford City Council Town Hall St Aldate's Oxford OX1 1BX
South Lakeland District Council	Rachel Shaw	Email: R.Shaw@southlakeland.gov.uk Tel: 0845 0504434 x7488 Environmental Protection Officer South Lakeland District Council South Lakeland House Lowther Street Kendal Cumbria LA9 4DQ

**Table 3: Website Addresses for Further Information**

Organisation	Website	Address
Brighton and Hove City Council	Brighton Solid Fuel webpages	<a href="http://www.brighton-hove.gov.uk/index.cfm?request=c1260494">http://www.brighton-hove.gov.uk/index.cfm?request=c1260494</a>
	Using Solid Fuels Safely leaflet	<a href="http://www.brighton-hove.gov.uk/downloads/bhcc/airquality/Using_Solid_Fuels_Safely_and_Legally_(pdf_0.2_mb).pdf">http://www.brighton-hove.gov.uk/downloads/bhcc/airquality/Using_Solid_Fuels_Safely_and_Legally_(pdf_0.2_mb).pdf</a>
Chichester District Council	Chichester Cycle Challenge	<a href="http://www.chichestercyclechallenge.org.uk/home">http://www.chichestercyclechallenge.org.uk/home</a>
	Cycle maps	<a href="http://www.chichester.gov.uk/index.cfm?articleid=14766">http://www.chichester.gov.uk/index.cfm?articleid=14766</a>

City of London Corporation	CityAir Website	<a href="http://www.cityoflondon.gov.uk/cityair">www.cityoflondon.gov.uk/cityair</a>
	LondonAir public bulletin	<a href="http://www.londonair.org.uk/london/asp/publicbulletin.asp">http://www.londonair.org.uk/london/asp/publicbulletin.asp</a>
	LondonAir instructional video	<a href="http://www.londonair.org.uk/LondonAir/Guide/Soundslides/DailyAirQualityIndex/DailyAirQualityIndexVideo.aspx">http://www.londonair.org.uk/LondonAir/Guide/Soundslides/DailyAirQualityIndex/DailyAirQualityIndexVideo.aspx</a>
	Business Procurement Guide	<a href="http://www.cityoflondon.gov.uk/business/environmental-health/environmental-protection/air-quality/cityair/Documents/Air%20Quality%20-%20Procurement_v9.pdf">http://www.cityoflondon.gov.uk/business/environmental-health/environmental-protection/air-quality/cityair/Documents/Air%20Quality%20-%20Procurement_v9.pdf</a>
City of York Council	York Air Quality Reports	<a href="http://www.jorair.co.uk/index.php?page=reports">http://www.jorair.co.uk/index.php?page=reports</a>
	Further Assessment for Fulford Main Street	<a href="http://www.jorair.co.uk/reports/Further/Further%20Assessment%20for%20Fulford%20Main%20Street%20-%20April%202011.pdf">http://www.jorair.co.uk/reports/Further/Further%20Assessment%20for%20Fulford%20Main%20Street%20-%20April%202011.pdf</a>
Colchester Borough Council	Love ur Car website	<a href="http://www.loveurcarcolchester.co.uk/">http://www.loveurcarcolchester.co.uk/</a>
Gedling Borough Council	Gedling ECO Stars website	<a href="http://www.gedling.gov.uk/wasterecyclingenvironment/environmentalhealth/ecostars/">http://www.gedling.gov.uk/wasterecyclingenvironment/environmentalhealth/ecostars/</a>
	ECO Stars leaflet	<a href="http://www.gedling.gov.uk/media/documents/wasterecyclingenvironment/ECOStars_Gedling_leaflet.pdf">http://www.gedling.gov.uk/media/documents/wasterecyclingenvironment/ECOStars_Gedling_leaflet.pdf</a>
London Borough of Camden	Project Report	<a href="http://www.camden.gov.uk/ccm/content/environment/green/airquality/understanding-your-views-on-air-quality.en">http://www.camden.gov.uk/ccm/content/environment/green/airquality/understanding-your-views-on-air-quality.en</a>
Oxford City Council	Oxford City Council website	<a href="http://www.oxford.gov.uk/">http://www.oxford.gov.uk/</a>
South Lakeland District Council	Go Easy website	<a href="http://www.goeasy.org.uk/">http://www.goeasy.org.uk/</a>
	Workplace Cycle Challenge	<a href="http://www.southlakes-cyclechallenge.co.uk/">http://www.southlakes-cyclechallenge.co.uk/</a>