



Special Environment and Sustainable Communities Overview and Scrutiny Committee

Date **Wednesday 8 January 2020**

Time **9.30 am**

Venue **Committee Room 2, County Hall, Durham**

Business

Part A

**Items during which the Press and Public are welcome to attend.
Members of the Public can ask questions with the Chairman's
agreement.**

1. Apologies
2. Substitute Members
3. Declarations of Interest, if any
4. Any items from Co-opted Members or interested parties
5. Management of Durham County Council's Fleet - Overview:
 - a) Joint report of the Corporate Director of Resources and the Corporate Director of Regeneration and Local Services (Pages 3 - 10)
 - b) Presentation by County Fleet Manager, Regeneration and Local Services (Pages 11 - 22)
6. Air Quality Management in County Durham - Progress:
 - a) Joint report of the Corporate Director of Resources and the Corporate Director of Regeneration and Local Services (Pages 23 - 30)
 - b) Presentation by the Pollution Control Manager, Senior Air Quality Officer and Strategic Traffic Manager, Regeneration and Local Services (Pages 31 - 56)
7. Such other business as, in the opinion of the Chairman of the meeting, is of sufficient urgency to warrant consideration

Helen Lynch
Head of Legal and Democratic Services

County Hall
Durham
30 December 2019

To: **The Members of the Environment and Sustainable
Communities Overview and Scrutiny Committee**

Councillor E Adam (Chair)
Councillor O Milburn (Vice-Chair)

Councillors B Avery, A Batey, D Bell, L Brown, J Carr, B Coult,
R Crute, S Dunn, A Gardner, K Hawley, J Higgins, P Howell,
C Kay, L Maddison, R Manchester, I McLean, A Simpson,
P Sexton and M Wilson

Co-opted Members:

Mr T Bolton and Mrs P Holding

Contact: Paula Nicholson

Tel: 03000 269710

**Environment and Sustainable
Communities Overview and
Scrutiny Committee**

8 January 2020

Fleet Management



Joint report of John Hewitt, Corporate Director of Resources and Ian Thompson, Corporate Director of Regeneration and Local Services

Electoral division(s) affected:

Countywide

Purpose of the Report

- 1 To provide Members of the Environment & Sustainable Communities Overview and Scrutiny Committee with an overview of how Durham County Council's (DCCs) fleet is managed including detail of work being undertaken to reduce emissions by DCC's fleet to help achieve the Council's targets as stated in DCC's Climate Change Emergency Declaration.

Executive Summary

- 2 The Environment and Sustainable Communities Overview and Scrutiny Committee at its meeting on the 12 July 2019 when considering its future work programme, agreed to include an overview of the management of DCC's fleet.
- 3 It was thought appropriate that the overview should come to the special meeting of the committee arranged for the 8 January 2020, recognising that this agenda includes items covering air quality and vehicles emissions.
- 4 Arrangements have been made for Michael Toas, County Fleet Manager to attend the meeting on the 8 January 2020 to deliver a presentation focusing on:
 - Fleet profile
 - Sites where Fleet is located
 - Current Fleet Management arrangements
 - Why Fleet is managed in this way
 - Plans to change how Fleet is managed in the future and challenges expected
 - Work undertaken to reduce emission from the Fleet and contribution to 60% reduction by 2030

- Future plans and steps

The presentation is attached as Appendix 2.

Recommendations

- 5 That the Environment and Sustainable Communities Overview and Scrutiny Committee note and comment on the content of the report and presentation.

Background

6 Fleet Profile

- 6.1 DCC operate a very diverse fleet of specialised vehicles / plant / equipment to meet DCC user departments provision of service requirements. Fleet Services are responsible for the procurement / maintenance, also ensuring legal compliance is maintained in relation to the DCC fleet.

Vehicle	Number
Cars / vans (up to 3.5T GVW including 3 EV's and 1 hybrid)	437
Vans (over 3.5T GVW)	31
Tippers / pick ups (up to 3.5T GVW)	57
Tippers / pick ups (over 3.5T GVW)	64
Minibus / bus	62
Dedicated gritters	32
Road sweepers	13
Gulley cleaning vehicles	4
RVC's	87
Tractors / plant machines	42
Ride-on mowers	88
Total road legal vehicles	1017

- 6.2 DCC departments also operate Items of plant / equipment (e.g hand held:- hedge cutter's, chainsaws, pedestrian grasscutters, pedestrian rollers, road work machinery) powered by petrol or diesel, total 1,433 items.

6.3 During the financial year 2018/19 the DCC Fleet of vehicles and plant / equipment (including seasonal hired in items) produced emissions totalling 10,344,958 Kg of Co2 (10,344.96 Tonnes).

7 Sites where fleet is located:

7.1 The vehicles are based at 4 operational main depots located at:- Meadowfield, Chilton, Peterlee, Annfield Plain, there are also 5 operational sub-depots located at Heighington, Tindale, Crook, Stainton Grove and Wolsingham.

7.2 Vehicles based at the depots are mainly vehicles which are on the DCC Operators Licence (vehicles over 3.5T GVW) which must be parked at a DCC designated premises.

7.3 There are also vehicles parked at DCC premises Countywide.

7.4 There are currently on average 177 vehicles which park at the DCC employee's home address due to the user departments requirements for the staff to operate "direct to job" or "emergency response".

8 Current Management arrangements:

8.1 Fleet management and fleet maintenance is provided from DCC workshops located in the 4 operational main depots located at:- Meadowfield, Chilton, Peterlee and Annfield Plain.

8.2 Fleet Services programme vehicle fleet replacements on a time frequency, based on the vehicle type. Prior to 2015 it was based on:- 5 years for cars / vans, 7 or 10 years for HGV's / specialist vehicles. Retaining vehicles for a 7 or 10 year period had a negative impact on the reliability of the vehicle's, resulting in a high level of vehicle downtime impacting on the delivery of service by the user departments. In addition, there was a negative impact on the DCC Fleet operating to the latest Euro vehicle emission standards.

8.3 Since 2015 vehicles are now programmed for replacement on a 5 year cycle, with the exception of high mileage vehicles replaced at 3 years and dedicated gritting vehicles / agricultural tractors and loading shovels replaced at 7 years. This has supported DCC in increasing the number of vehicles operating to Euro 6 emission standards (vehicles registered on / after 31/12/2013), currently 85.41% of the DCC fleet is to the Euro 6 emission standard.

8.4 The fleet replacement programme is generated from the Fleet Management System (FMS), reporting on when assets are due to be replaced and when to start the procurement process. The start procurement date is based on a timeline to account for:- asset replacement due date, procurement process, consultation with the user department to agree specification, Head of Service final approval, tendering, manufacturers lead times on delivery, all information is recorded on the FMS. There are various timelines, for example

an RCV has a 52 week start procurement date in advance of its replacement due date to ensure the new vehicle is in service for when the replaced vehicle is removed from service.

- 8.5 Every asset on the vehicle replacement programme is only procured on completion of a business case, identifying:- asset to be replaced, departments requirements, suitable alternatives, agreed specification with Fleet Manager and signed approval from the Line Manager / Finance Lead and Head of Service. On the 1/3/2019 the business case was amended to specifically document response on considering an EV or alternatively fuelled vehicle option.

9 **Why Fleet is managed in this way.**

- 9.1 Since LGR a rationalisation of the fleet workshops was undertaken to provide value for money by reducing the global workshop operational / facility budget. Workshops based at Crook, Chester-Le-Street, Stainton Grove and Dragonville were subsequently closed. The Fleet operations were re-located into the current workshops located within the main operating Depots at Meadowfield, Chilton, Peterlee and Annfield Plain.

- 9.2 Currently the vehicles are financed via an operating lease agreement, it is crucial that a robust replacement programme is in place and efficiently managed to ensure assets are replaced prior to the lease expiry dates. Failure in following this process will result in assets been retained beyond the programmed replacement date and incurring lease extension costs.

10 **Plans to change how the fleet is managed in the future and challenges expected:**

- 10.1 EV technology has significantly advanced in relation to cars and small / midi vans (up to 3T GVW), however commercial vehicles over 3T GVW and specialist vehicles are not at the same development stage. There a small number of manufacturers supplying specialist EV's 2020/21, however it is difficult to obtain demonstrations of the vehicles to operate within DCC service areas as they are only usually available to trial for part of a day. In recent discussions with a number of major manufacturers, particularly in the specialist vehicle market, they are very much still in the design stage in producing purpose built EV's, referencing availability early 2023/24.
- 10.2 EV's are currently more expensive to purchase than a diesel/ petrol vehicle, potentially increasing the annual finance cost, however this can be compensated by the reduction in routine maintenance costs, fuel saving, zero rating on road fund licence. The evaluation on "Whole Life" costs will establish to consider extending the programmed replacement frequencies on some vehicles to provide "Value for Money". It is envisaged that as EV's particularly in the specialist vehicle market are more readily available the manufacturers purchase cost will be more competitive.

- 10.3 The Ultra Low Emission Vehicles (ULEV) working group is currently identifying funding opportunities to facilitate the potential home charging for DCC vehicles parked at DCC employees home addresses.
- 11 Work undertaken to reduce emissions from the fleet and contribute to the Council's 60% reduction by 2030:**
- 11.1 In January 2019 the DCC ULEV working group was established to meet the challenge of reducing DCC's carbon footprint. The group reports to the Head of Transport and Contract Services with representatives from:- Regeneration and Local Services, Low Carbon Economy Team, Strategic Highways, Fleet Services, Procurement and Legal Services. The group is currently focusing on developing an EV charging infrastructure Countywide, promoting the use of EV's within DCC Departments, replacement of the current DCC pool cars with EV's and install EV charging infrastructure at DCC pool car locations / Depots.
- 11.2 Site surveys have been undertaken in December 2019 on the EV charging posts to be installed at DCC pool car locations to facilitate charging. Cost options to be available February 2020.
- 11.3 The current pool car scheme is operated using 25 diesel powered cars and 1 petrol hybrid, the vehicles are due for replacement 2020/21, it is proposed that the 26 vehicles are replaced with EV's during 2020/21. Based on the current total annual mileage of 245,768 this would give a forecasted carbon reduction of 37,575Kg Co2 (37.57 Tonnes).
- 11.4 Within the vehicle procurement programme 2019/20, 2 no Renault Kangoo vans have been purchased to replace existing diesel powered vehicles, forecasted carbon reduction for the 2 vehicles is 6,212 Kg Co2 (6.21 Tonnes). The vehicles will be made available in promoting the use of EV's to DCC departments.
- 11.5 The introduction of battery powered hand held equipment as a direct replacement to conventional petrol powered units used by DCC departments commenced in 2018. Clean & Green for example have already procured a number of battery powered units, example leaf blowers, hedgecutters pedestrian sweeper etc. Battery technology is advancing to increase the operational hours of the battery and the range of machinery available. Fleet Services have facilitated road shows with suppliers to promote the availability of equipment to DCC departments.
- 11.6 There are 6 no Refuse Collection Vehicles (RCV's) programmed for delivery March 2020, the vehicles are fitted with electric powered bin lifters which the manufacturers forecast a potential fuel saving of 6%-11% (depending on the refuse collection round / application). Based on a vehicle using 10,000 ltrs of diesel per annum this would give a forecasted carbon reduction of 9,456 Kg Co2 (9.46 Tonnes) – 17,340 Kg Co2(17.34 Tonnes) for the 6 vehicles.

- 11.7 The fuel usage on the RCV's fitted with electric bins will be monitored to inform within the January 2020 consultation process on the procurement of 12 no RCV's due for replacement March 2021.
- 11.8 Site visits have been undertaken during November at Warrens based at Newton Aycliffe who produce Bio Gas from food waste, they have installed a Compressed Natural Gas (CNG) pump to fuel vehicles as a retail outlet. There is an opportunity to operate RCV's powered by CNG collecting refuse. The CNG powered vehicles will be considered as an option within the January 2020 consultation process on the procurement of the RCV's
- 11.9 There are currently two service specific route planning / vehicle telematic units fitted into vehicles. Bartec system fitted into RCV's and UK Telematics fitted into Highways, Building Services, IT Services, Care Connect and Wardens / Environmental Control vehicles. The use of this technology has been a positive step forward in ensuring the vehicles are operated efficiently, improving service response and electronic data capture to support the service provision. Telematic units will be installed to all DCC vehicles during 2020/21, to facilitate:- route planning, electronically record vehicle daily checks and provide data on driver trends, e.g. excessive acceleration, harsh braking etc which can have a negative impact on mpg / EV battery power. Information would be used to advise / re-train drivers.
- 11.10 Morrison Busty Depot at Annfield Plain has been identified as a suitable site for a Low Carbon Depot, DCC have submitted an application for ERDF funding to install a solar farm to generate electric and install heat source pumps. The ERDF submission also includes funding for an EV charging infrastructure to facilitate the future charging of the fleet vehicles located at the Morrison Busty Depot.

12 **Future Plans and Steps**

- 12.1 Although considerable work has already been undertaken in the efficient planning of the fleet replacements Fleet Services will be required to continually ensure the promoting of EV's / alternative fuelled vehicles within the business case process with DCC departments. This will require Fleet Services to be continually appraised on the development of EV / alternative fuelled vehicle technology from the manufacturers and facilitate vehicle demonstrations to DCC departments.
- 12.2 The first steps in progressing the electrification of the DCC Fleet will be the installation of EV charging posts at pool car locations by May 2020. This project is seen as "quick win" as the infrastructure required is relatively straight forward, vehicles already have designated parking areas in close proximity to electrical supply. In addition, the 26 pool cars are programmed for replacement 2020/21 so the integration of the EV pool cars into the DCC fleet can be aligned with the completion of the charging infrastructure.
- 12.3 An efficient EV charging infrastructure will be key in supporting DCC departments in operating EV's. The electrification of the fleet will require site

surveys to establish future electrical requirements at all the Depots where the fleet is located. Recommend this is undertaken April 2020. The work been undertaken by the ULEV working group in future development for EV charging stations Countywide will also support the DCC EV Fleet.

- 12.4 ULEV Working Group to confirm funding, required infrastructure and feasibility to facilitate home charging for DCC vehicles parked at DCC employees home addresses. This project will support a number of DCC departments in operating EV's, for example Building Services operational staff park the vehicles at home as they operate a "direct to job" service, this approach has increased productivity as staff are not travelling from Depot locations. In addition, if all DCC vehicles parked within a Depot location capacity for parking would be an issue. Feasibility study to commence April 2020
- 12.5 On implementation of 12.4 then an estimated 40 EV vans could be integrated within the fleet by March 2022, forecasted reduction 124,236 Kg Co2 (124.27 Tonnes)
- 12.6 Evaluation on the fuel usage on the 6 RCV's with electric bin lifts programmed for delivery March 2020 will be undertaken during the initial first 3 months of operation to inform on the procurement requirements for the next RCV replacements which are due March 2021.
- 12.7 Evaluate the use of CNG powered vehicles initially within the Refuse Collection Service.
- 12.8 The 2018/19 Fleet Co2 emissions calculated as 10,344,958 Kg Co2 (10,344.96 Tonnes), the current forecasted reduction for 2020/21 would give a potential carbon reduction of 53,242 Kg Co2 (53.24 Tonnes) – 61,127 Kg Co2 (61.18 Tonnes). Calculation based on the 26 pool cars, 2 Renault vans and the 26 RCV's with electric bin lifts.
- 12.9 Installation of vehicle telematic units throughout the DCC fleet vehicles by September 2020, this will provide route planning, electronic recording of vehicle daily checks and provide information on the efficient operation of the vehicle in supporting carbon reduction.

13 **Conclusion**

- 14 The Members of the Environment and Sustainable Communities Overview and Scrutiny Committee will be aware of how current and future management of the fleet will support DCC's ambitious target to reduce its own carbon emissions by 60% by 2030.

Contact: Michael Toas

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Appendix 1: Implications

Legal Implications N/A

Finance Capital funding will be required for the future site surveys and installation of EV charging structure to facilitate charging for the DCC Fleet. Morrison Busty low carbon Depot is subject to a bid for ERDF funding. Financing of the vehicles is within the fleet replacement programme budget.

Consultation ULEV working group, staff / Tu's

Equality and Diversity / Public Sector Equality Duty N/A

Climate Change Completion of the projects within the report will have positive impact on DCC meeting 60% carbon reduction by 2030

Human Rights N/A

Crime and Disorder N/A

Staffing Fleet Services staff will integrate working on the projects within their current duties.

Accommodation N/A

Risk Failure in completing on the projects will risk not achieving DCC carbon reduction target of 60% by 2030

Procurement Current process for the procurement of DCC vehicles will be applied by Fleet Service. The procurement of the EV infrastructure will be facilitated by the procurement Officers within the ULEV working group.

Fleet Management Presentation

8 January 2020

Altogether better



Fleet Profile

DCC operate a very diverse Fleet of specialised vehicles/ plant/ equipment to meet DCC user departments service requirements. Fleet services are responsible for the procurement/ maintenance and also ensuring legal compliance is maintained in relation to the DCC Fleet

Vehicle	Number
Cars / vans (up to 3.5T GVW including 3 EV's and 1 hybrid)	437
Vans (over 3.5T GVW)	31
Tippers / pick ups (up to 3.5T GVW)	157
Tippers / pick ups (over 3.5T GVW)	64
Minibus / bus	62
Dedicated gritters	32
Road sweepers	13
Gulley cleaning vehicles	4
RVC's	87
Tractors / plant machines	42
Ride-on mowers	88
Total road legal vehicles	1017

Altogether better

- Total 1,433 Items of plant / equipment powered by petrol or diesel
- During 2018/19 the DCC Fleet of vehicles and plant produced emissions totalling 10,344,958 Kg of Co2 (10,344.96 Tonnes).

Altogether better



Sites where fleet is located:

- Main sites:
 - Meadowfield Depot
 - Chilton Depot
 - Hackworth Road Depot
 - Morrison Busty Depot
- Other sites:
 - Crook
 - Heighington
 - Stainton Grove
 - Tindale
 - Wolsingham
 - Countywide DCC premises
 - Home locations (177 vehicles parked at DCC employee address)

Altogether better



Current Fleet management arrangements:

- Fleet Management and fleet maintenance system in place
- Fleet Services programme in place which replaces fleet on a time frequency basis. Fleet replacement programme is generated from the Fleet Management System (FMS)
- Every asset on the vehicle replacement programme is evaluated and supplied to the operational requirements of the user department

Altogether better



Why fleet is managed in this way:

- Since LGR a rationalisation of the Fleet workshops was undertaken to provide value for money by reducing the global workshop operational / depot's facilities budget
- Currently the vehicles are financed via an operating lease agreement,

Altogether better



Plans to change how the fleet is managed in the future and any challenges:

- EV technology has advanced in relation to cars and small / midi vans (up to 3T GVW), however commercial vehicles over 3T GVW and specialist vehicles are not at the same stage of development.
- EV's are currently more expensive to purchase than a diesel/ petrol vehicle
- The ULEV working group is currently identifying funding opportunities to facilitate home charging for DCC vehicles parked at DCC employees home address's

Altogether better



Work undertaken to reduce emission from the fleet and contribution to 60% reduction by 2030:

- In January 2019 the DCC Ultra Low Emission Vehicles (ULEV) working group was established to meet the challenge of reducing DCC's carbon footprint.
- Site surveys have been undertaken on the EV charging posts to be installed for charging the pool cars. Cost options to be available February 2020
- The current pool car scheme is operated using 25 diesel powered cars and 1 petrol hybrid, the vehicles are due for replacement 2020/21, it is proposed that the 26 vehicles are replaced with EV's during 2020/21. Based on the current total annual mileage of 245,768 this would give a forecasted carbon reduction of 37,575Kg Co2 (37.57 Tonnes).

Altogether better



- 2 no Renault Kangoo vans have been purchased to replace existing diesel powered vehicles, forecasted carbon reduction for the 2 vehicles is 6,212 (6.21 Tonnes) Kg Co2
- The introduction of battery powered hand held equipment as a direct replacement to conventional petrol powered units. Clean & Green for example have already procured a number of battery powered units, example leaf blowers, hedgecutters, pedestrian sweeper
- 6 no Refuse Collection Vehicles (RCV's) are due delivery March 2020, the vehicles are fitted with electric powered bin lifters which the manufacturers forecast a potential fuel saving of 6%-11%.

Altogether better



- The fuel usage on the RCV's fitted with electric bins will be monitored to inform on the next procurement of 12 no RCV's due for replacement March 2021.
- There is an opportunity to operate RCV's powered by CNG collecting refuse.
- There are currently two service specific route planning / vehicle telematic units fitted into vehicles. Telematic units will be installed to all DCC vehicles during 2020/21 to provide an efficient operation of vehicles and improve service response
- Morrison Busty Depot at Annfield Plain has been identified as a suitable site for a Low Carbon Depot

Altogether better



Future Plans and Steps:

- Fleet Services will be required to continually promote EV's / alternative fuelled vehicles within the business case process with DCC departments
- Installation of EV charging posts at pool car locations by May 2020
- It is proposed that 26 pool cars are replaced with EV's during 2020/21
- An efficient EV charging infrastructure will be key in supporting DCC departments in operating EV's
- ULEV Working Group to confirm funding, required infrastructure and feasibility to facilitate home charging
- Estimated 40 EV vans could be integrated within the Fleet by March 2022
- Evaluation on the fuel usage on the 6 RCV's with electric bin lifts will be undertaken

Altogether better



- Evaluate the use of CNG powered vehicles initially within the Refuse Collection Service
- The 2018/19 fleet Co2 emissions where 10,344,958 kg Co2 (10,344.96 tonnes), the current forecasted reduction for 2020/21 would give a potential carbon reduction of 53,242 Kg Co2 (53.24 Tonnes) – 61,127 Kg Co2 (61.18 Tonnes).
- Installation of vehicle telematic units throughout the DCC Fleet vehicles by September 2020 to improve efficient operation of the vehicles

Altogether better



**Environment and Sustainable
Communities Overview and Scrutiny
Committee**



8 January 2020

Air Quality Management in County Durham

**Joint report of John Hewitt, Corporate Director of Resources and
Ian Thompson, Corporate Director of Regeneration and Local
Services**

Electoral division(s) affected:

Countywide

Purpose of the Report

- 1 To provide Members of the Environment and Sustainable Communities Overview and Scrutiny Committee (ESC OSC) with background information on progress made on the Durham City air quality action plan measures, the air quality elsewhere across the County and traffic improvements in Durham City prior to a presentation by Denyse Holman, Pollution Control Manager, David Gribben, Senior Air Quality Officer, and Dave Wafer, Strategic Traffic Manager, . Regeneration and Local Services

Executive summary

- 2 Members will recall that at the meeting of the Environment and Sustainable Communities Overview and Scrutiny Committee held on the 4 October 2018 an update was provided on the further development of the Air Quality Action Plan for Durham City and on the air quality in Chester le Street.
- 3 It was agreed by members at the meeting on the 12 July 2018 that the Environment and Sustainable Communities Overview and Scrutiny Committee would receive a further progress update as part of its 2019/2020 work programme. This update would include progress on the development of local air quality management work across the county and in particular the implementation of the Durham City Air Quality Action Plan.

Arrangements have been made for Denyse Holman, Pollution Control Manager, David Gribben, Senior Air Quality Officer and Dave Wafer, Strategic Traffic Manager to attend the meeting and deliver a presentation focusing on:

- The current position on the revocation of the Air Quality Management Area at Menceforth Cottages in Chester le Street and the extension of the Durham City Air Quality Management Area.
- The annual mean monitoring results that have been measured for consecutive years in 2016, 2017 and 2018 at sites across Durham City and at Menceforth Cottages in Chester le Street.
- An update on the progress of the implementation of the action measures detailed in the Durham City Air Quality Action Plan.
- Air quality projects that have been carried out since the previous presentation by referring specifically to the assessment of the impact of taxis on air quality and the potential for using Green Infrastructure (GI) to improve air quality across Durham City. These have both been included as new actions in the Durham City Air Quality Action Plan.
- Traffic projects that improve the traffic flow at key junctions, specifically Gilesgate and Leazes Bowl. This covers work completed in 2016 giving extra capacity on key parts of the junctions and the signals that are linked together by a system called SCOOT, which bring additional benefits when the network is not operating in its normal state. Also the potential range of projects for Durham City that are covered by a bid via the North East Transforming Cities fund.

A copy of the presentation is attached as Appendix 2.

Recommendations

- 4 That the Environment and Sustainable Communities Overview and Scrutiny Committee consider and comment on the information provided in the report and presentation.
- 5 That the Environment and Sustainable Communities Overview and Scrutiny Committee includes in its work programme for 2020/2021 a further progress update on the management of air quality in County Durham.

Background

- 6 To fulfil the requirements of the Environment Act 1995 the Council is required to carry out an annual review and assessment of air quality across the County. This involves the monitoring of levels of nitrogen dioxide, an air quality pollutant that is emitted from vehicle exhaust

emissions, at sites across Durham City and at Menceforth Cottages in Chester le Street.

- 7 The measured levels of nitrogen dioxide at monitoring sites at Queen Alexandra Cres/Sutton Street, Church Street (New Elvet) and at residential properties close to the carriageway on Gilesgate Bank in Durham City have exceeded the annual mean air quality objective ($40 \mu\text{g}/\text{m}^3$).
- 8 The measured levels of nitrogen dioxide at Nos 1 and 5 Menceforth Cottages in Chester le Street have previously also exceeded the annual mean air quality objective ($40 \mu\text{g}/\text{m}^3$). However, the levels measured over the previous 3 consecutive years (2016,2017 and 2018) have been below the level of the annual mean objective.
- 9 An Air Quality Management Area (AQMA) was declared for nitrogen dioxide across the centre of Durham City on the 9th May 2011. This extended from Highgate, through the city centre over Milburngate Bridge to the Hild and Bede roundabout and then through Gilesgate to the junction of Sunderland Road and Dragon Lane.
- 10 The boundary of the Durham City AQMA was extended in July 2014 to incorporate a section to the west following the route of the A690 to Neville's Cross and then to the Stonebridge roundabout together with incorporating sections of Claypath and New Elvet.
- 11 An Air Quality Management Area (AQMA) was declared for nitrogen dioxide that incorporated Menceforth and Glen Terrace on Pelton Fell road situated to the west of Chester le Street town centre on the 17 May 2013.
- 12 The boundary of the declared Air Quality Management Area was subsequently amended to solely include Menceforth Cottages on 25 March 2015 since the levels of nitrogen dioxide monitored at Glen Terrace were consistently well below the annual mean air quality objective
- 13 The Council adopted an Air Quality Action Plan for Durham City with fifteen action measures on 15th June 2016. The air quality action measures are targeted towards reducing the levels of nitrogen dioxide to achieve compliance with the annual mean objective ($40 \mu\text{g}/\text{m}^3$).
- 14 Following discussions with DEFRA, the Council set out an approach in the Annual Air Quality Status Report 2018 that if the monitored annual mean was below $36 \mu\text{g}/\text{m}^3$ (ten percent below the annual mean air quality objective) then the Chester le Street AQMA will be revoked.

- 15 The monitored annual mean levels of nitrogen dioxide at the sites at No 1 and No 5 Menceforth Cottages were below 36 µg/m³ in 2017 and 2018 and therefore the revocation of the Chester le Street AQMA has been progressed and will be completed early next year.
- 16 The traffic volumes in Durham City remain high which is the principle reason for the air pollution problem. This is particularly an issue with residential properties being close to the roadside, hence the AQMA. Whilst managing traffic more efficiently through the City will assist in reducing overall air pollution levels this is likely to have less impact on specific residential properties. Although traffic congestion is seen mainly during the morning and evening peak hours, traffic volumes remain relatively high throughout the day.
- 17 The approach to reducing emissions from vehicles focuses on a number of issues:
 - Reducing the number of vehicles in the City.
 - Reducing congestion and improving traffic flow through the City.
 - Reducing the emissions from those vehicles which remain.

Information systems have been introduced that channel traffic information into one place (Urban Traffic Management Control-UTMC). This already includes traffic cameras and roadside signs. This will be extended in early 2020 to include more detection equipment to provide journey time and car park capacity monitoring.

- 18 The next steps are a bid via the North East Transforming Cities fund. This will potentially see investment of up to £21 million on a range of projects including:
 - Walking and cycling improvements, £7.5 million.
 - Park and Ride Expansion, £4.5 million.
 - Bus Priority Measures, £0.35 million.
 - Access to Durham Rail Station, £0.2 million.
 - Durham Bus Station, £8.5 million.

Conclusion

- 19 Overview and Scrutiny Members will be aware of work currently being undertaken to manage air quality in County Durham and work planned for the future.

Background papers

-

Other useful documents

- None

Contacts:

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Tel: 03000 260992

David Gribben, Senior Air Quality Officer

Tel: 03000 260997:

Dave Wafer, Strategic Traffic Manager

Tel: 03000 263577

Appendix 1: Implications

Finance

There are cost implications with the implementation of the air quality improvement measures incorporated within the Durham City Air Quality Action Plan. The source of the pollution is from vehicle emissions and therefore the majority of the actions are traffic improvement measures and the capital funds required for these is yet to be determined and would need to be met from the Local Transport Planning budget or other relevant external funding streams.

There are also cost implications with the ongoing requirement to carry out monitoring of air quality pollutant (nitrogen dioxide) and 'indicators' e.g. traffic volume flow rates following the implementation of the action measures. The expansion of the existing network of monitors that measure air quality pollutants (nitrogen dioxide) is likely to be required going forward. In particular the use of further portable continuous monitors will be required to provide a daily profile of levels of nitrogen dioxide at locations where the implementation of the action measures is likely to have an impact. The portable continuous monitors were replaced in September 2016 with an upgraded specification that includes the capability of measuring particulates. The cost to cover this was £10,628 and the funding for this was sourced from the budget for the implementation of the Local Transport Plan.

Staffing

Officers in the Pollution Control Team will be required to plan and then undertake monitoring at locations across the County with a particular focus on the Durham City Air Quality Management Area. The responsibility for the implementation of the actions will involve a number of key service areas across the Council in accordance with an agreed Implementation Plan. This will require the allocation of staff resources in these sections to ensure the actions are effectively delivered and monitored.

Meetings of the Air Quality Technical Working Group will continue and progress on the implementation of the proposed action measures will be reported to the Air Quality Corporate Steering Group on a regular basis.

Consultation

The Council is legally required to consult, under Schedule 11 of the Environment Act 1995, following the completion of Local Air Quality Management projects. The requirements are to consult with statutory consultees comprising of neighbouring local authorities, DEFRA, the

Highways Authority, the Environment Agency and organisations/associations that represent business interests in areas to which the project relates.

The main purpose of previous consultation was to obtain feedback on the air quality improvement actions that have been included in the Durham City Air Quality Action Plan. Some of the actions have indirect benefits on air quality and are dependent on participation by the public such as encouraging other forms of travel to private car use. The carrying out of a campaign that highlights the importance of air quality is included as one of the action measures and this will also provide an opportunity to raise the profile of air quality across the city and therefore impact on the effectiveness of these actions.

Equality and Diversity / Public Sector Equality Duty

Local Air Quality Management focusses on improving or reducing the impacts of air quality. Therefore the completion of air quality projects and especially the implementation of the Durham City Air Quality Action Plan will have a beneficial impact irrespective of the background of the residents of the properties of the areas to which the projects relate.

An Equalities and Diversity Impact Assessment was initially prepared for the draft Air Quality Action Plan to the NSMT on 25th August 2015. This has been reviewed and updated to take into consideration the outcome of the consultation that concluded on 14th December 2015. Further reviews will be undertaken as necessary.

Human Rights

Not applicable

Climate Change

Many of the action measures in the Durham City Air Quality Action Plan that are targeted towards reducing levels of nitrogen dioxide will also be beneficial for reducing carbon emissions. This will, for example, be the case with action measures targeted on improving the emission standards of the profile of the buses operating in Durham City and by those actions that seek to encourage a shift to other modes of travel such as cycling or walking.

Crime and Disorder

Not applicable

Accommodation

Not applicable

Legal

The Council is legally required, under the Environment Act 1995, to implement the air quality improvement actions in an Air Quality Action Plan to demonstrate that it is pursuing compliance with the air quality objectives.

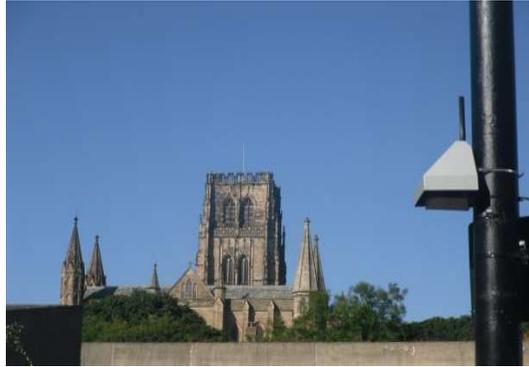
Risk

To fail to carry out this duty may lead to judicial proceedings being taken against the Council and/or intervention by the Secretary of State.

The UK Government is also required to comply with EU legislation and failure to do so can lead to infraction fines being imposed. Under the Localism Act 2011 all or a proportion of the fine maybe passed on to Local Authorities where there is failure to carry out its statutory duties in relation to air quality.

Procurement

It may be necessary to purchase further monitoring equipment and/or consultancy services to enable the Council to complete these projects. The purchase of further monitoring equipment or consultancy services, if required, will be undertaken in accordance with the applicable Council procurement policies and procedures.



Local Air Quality Management Across County Durham



Altogether better



Local Air Quality Management Across County Durham

Presentation Aim

To provide an update on air quality in Chester le Street and Durham City over the previous 12 months.

Areas to consider:

- AQMA in Chester-le-Street
- AQMA in Durham City
- Progress on the Air Quality Action Measures Within the Durham City AQAP

Altogether better



Local Air Quality Management Across County Durham

Position Statement for Chester le Street and Durham City (8th January 2020)

- The Regeneration and Local Services (REAL) Management Team have supported the recommendation:
 - To revoke the Air Quality Management Area (Menceforth Cottages) in Chester le Street.
 - To extend the Durham City Air Quality Management Area to include a short section of Church St in New Elvet.
- Both of these will come into effect once the consultations are completed early in the New Year following the Election.
- The monitoring results (2016 to 2018) support both the revocation and the extension.

Altogether better



Local Air Quality Management Across County Durham

Monitoring in Chester-le-Street

- Strategy agreed with DEFRA
- The results from the monitoring for both 2017 and 2018 are below 36 $\mu\text{g}/\text{m}^3$ (10 percent below the annual mean air quality objective).

**Table 1: Chester-le-Street Air Quality Monitoring (Nitrogen Dioxide)
Results from 2016 to 2018**

Location	Annual Mean: $\mu\text{g}/\text{m}^3$		
	2016	2017	2018
No 5 Menceforth Cottages	36.3	34.9	34.8
No 1 Menceforth Cottages	36.3	34.7	35.3
DEFRA Modelled Background Levels of Nitrogen Dioxide (NO ₂)	11.9	9.5	9.0

Altogether better

Local Air Quality Management Across County Durham

Monitoring in Durham City 1

- There are locations in the following areas where the annual mean air quality objective ($40 \mu\text{g}/\text{m}^3$) was exceeded in 2018:

(1) Alexandra Cres and Sutton Street, Crossgate

(2) Church Street, New Elvet close to the junction of Hallgarth and Church St.

(Covers locations that are currently outside of the AQMA but will be included within the amended AQMA).

(3) Gilesgate (Eastbound)

Altogether better



Local Air Quality Management Across County Durham

Monitoring in Durham City 2

Site Ref.	Site Address	2016 µg/m ³	2017 µg/m ³	2018 µg/m ³
D12	1 Colpitts Terr	43.6	40.5	44.1
D146	35/36 Sutton St	N/R	40.4	35.4
D130	1 Sutton St	48.3	43.3	46.2
D151	6 Sutton St	N/R	34.6	39.0
D20	80 Gilesgate	41.4	37.0	36.7
D149	69 Gilesgate	N/R	53.6	48.2
D19	1 Church St	45.0	43.8	41.2
D116	3 Church St	46.1	49.9	44.2
D117	33 Church St	43.4	47.0	40.1

Altogether better

Local Air Quality Management Across County Durham

7

Progress on the Implementation of the Air Quality Action Measures

- Recap: The adopted Air Quality Action Plan contained 15 Action Measures.
- 2 additional actions have now been included:
 - (i) An action to explore the impact of taxis on air quality in Durham City.
 - (ii) An action to explore the use of Green Infrastructure (GI) across Durham City.

Altogether better



Local Air Quality Management Across County Durham

Progress on the Implementation of the Action Measures:

- **Action Measure 1:** The introduction of a UTMC or SCOOT system. (update to be provided by Traffic Management)
- **Action Measures 2 & 3:** The upgrading of the emission profile of the bus fleet.
 - The replacement of older with newer buses. (The majority of the fleet remain Euro V Emission Standard.)
 - The introduction of new Euro VI buses on the Cathedral service.
 - No buses were retrofitted during 18/19. The X12 buses on the Newcastle to Middlesbrough route to be retrofitted to achieve compliance with Euro VI during 19/20.
- **Action Measure 4:** The buses operating on the Park & Ride routes remain compliant with Euro VI emission standard.

Altogether better



Local Air Quality Management Across County Durham

Progress on the Implementation of the Action Measures:

Action Measure 5: The development of cycle-ways. A short-section (960m) of cycle route has been provided adjacent to the A167 (At the Cock O'North)

Action Measure 6: The promotion of Smarter Travel Choices: No details received of Travel Plans established by businesses in Durham City.

Altogether better



Local Air Quality Management Across County Durham

Progress on the Implementation of the Action Measures:

Action Measure 7: The establishment of the current Air Quality & Planning Guidance Note as a Supplementary Planning Document (SPD). This sets out the requirements on developers when proposing new development within the city and its environs.

- The Guidance Note has been updated to incorporate the requirements of the Institute of Air Quality Management (IAQM) Guidance on Planning for Air Quality.
- The Guidance Note will be further updated when the County Durham Plan (CDP) is adopted.

Altogether better



Local Air Quality Management Across County

Durham

Progress on the Implementation of the Action Measures

Action Measure 8

Impacts of The Emerging Local Plan on Air Quality

- The project considers the impact of both Nitrogen Dioxide (NO₂) and Particulate Matter (PM_{2.5}- particles of below 2.5 microns).
- Quantifies the impacts on concentrations of air quality pollutants (NO₂ and PM_{2.5}) within the Durham City Air Quality Management Area using detailed dispersion modelling.
- The project identifies locations that are outside the AQMA where there is a possibility of exceeding the annual mean air quality objective. Further monitoring of the levels of Nitrogen Dioxide is now carried out at these locations.
- The project provides a tool that can be used to address any questions or queries raised in relation to the Plan.

Altogether better



Local Air Quality Management Across County Durham

Progress on the Implementation of the Action Measures

Action Measure 9

- **An Air Quality Strategy**
 - Identifies and details the role of key sections across the Council in addressing air quality including Traffic Management, Sustainable Transport, Public Health, Climate Change & Sustainability and Spatial Policy.
 - Integrates the strategic policies that are applicable to air quality as detailed in the emerging Local Plan, the Local Transport Plan, the Durham City Sustainable Transport Strategy and the Climate Change Emergency Plan in focusing and addressing air quality in Durham City.
 - Fulfils the requirements of the Action Measure in the Air Quality Action Plan.
 - This will be reported to the relevant Management Team of the Council.

-Altogether better



Local Air Quality Management Across County Durham

Progress on the Implementation of the Action Measures

Action Measure 10

Air Quality Campaign

- A competition to design a poster around the theme of alternative ways to travel to and from school took place on Clean Air Day (21st June 2019).
- Scheduled visits have been made by a representative of 'Living Streets' to promote a message of 'Walk to' as an alternative to taking the car.
- The webpages on air quality have been updated to support the campaign and promotional materials prepared including a leaflet and banner.

Altogether better



Local Air Quality Management Across County Durham

Progress on the Implementation of the Action Measures:

Action Measure 11: Variable message and car park direction signing system. The variable message signs are installed and in operation.

Action Measure 12: The provision of travel & driver information integrated with the Urban Traffic Management Control (UTMC) system.

- The replacement of the UTMC to take place during this financial year.
- The portable air quality monitors can communicate with the UTMC.

Action Measure 13: The introduction of variable residential car parking charges.

- Further exploration of the potential to provide charging facilities on such streets which would facilitate the action.

Altogether better



Local Air Quality Management Across County Durham

Progress on the Implementation of the Action Measures:

Action Measure 14: The extension of the existing Park & Ride sites and the provision of further Park & Ride sites.

- The expansion of the existing Park & Ride site at Sniperley is being progressed.
- The provision of a further Park & Ride site at Stonebridge is being progressed.

Action Measure 15: The options for providing additional highway infrastructure.

- The creation of a Northern Relief Road to reduce the volume of traffic through Durham City is being progressed.
- A relief road that will link Renny's Lane to Damson Way, Dragonville is being progressed.

Altogether better



Local Air Quality Management Across County Durham

Progress on the Implementation of the Action Measures New Action Measure 16

The Impact of Taxis on Air Quality in Durham City

- The project determines the proportion of taxis of the vehicle fleet that contribute to concentrations of Nitrogen Dioxide (NO₂) in the local vicinity of Milburngate Bridge and Leaze's Road.
- The project demonstrates that taxis contribute 4% of the Nitrogen Dioxide (NO₂) at receptors close to Milburngate Bridge.
(This equates to approx. 1µg/m³ of Nitrogen Dioxide).

Altogether better



Local Air Quality Management Across County Durham

Progress of the Implementation of the Action Measures

New Action Measure 17

To explore the use of Green Infrastructure (GI) to improve air quality

- The project draws upon recent research on the effectiveness of Green Infrastructure (GI) to remove different types of air quality pollutants (Particulate Matter- PM and Nitrogen Dioxide- NO₂).
- The project considers different types of GI that maybe applicable including green walls, vegetated screens, hedges/shrubs and trees.
- It sets out recommendations for GI across the Air Quality Management Area that may have an impact on reducing levels of air quality pollutants.

This includes areas where the monitored mean exceeds the objective.

i.e. Gilesgate and Sutton St/Alexandra Cres.

Altogether better



Local Air Quality Management Across County Durham

Going Forward: A Review of the Durham City Air Quality Action Plan

- Recap: The Environment Act 1995 requires that a review of the AQAP is carried out. In accordance with DEFRA Policy Guidance this should be undertaken not more than 5 years from when the Plan was adopted. (Not later than 2021).
- The review will assess where we are and the overall effectiveness of the Plan to reduce levels of Nitrogen Dioxide (NO₂)
- The review will identify, assess and prioritise any additional measures considered necessary in pursuit of achieving compliance with the annual mean objective. (40 µg/m³)

Altogether better



Local Air Quality Management Across County Durham

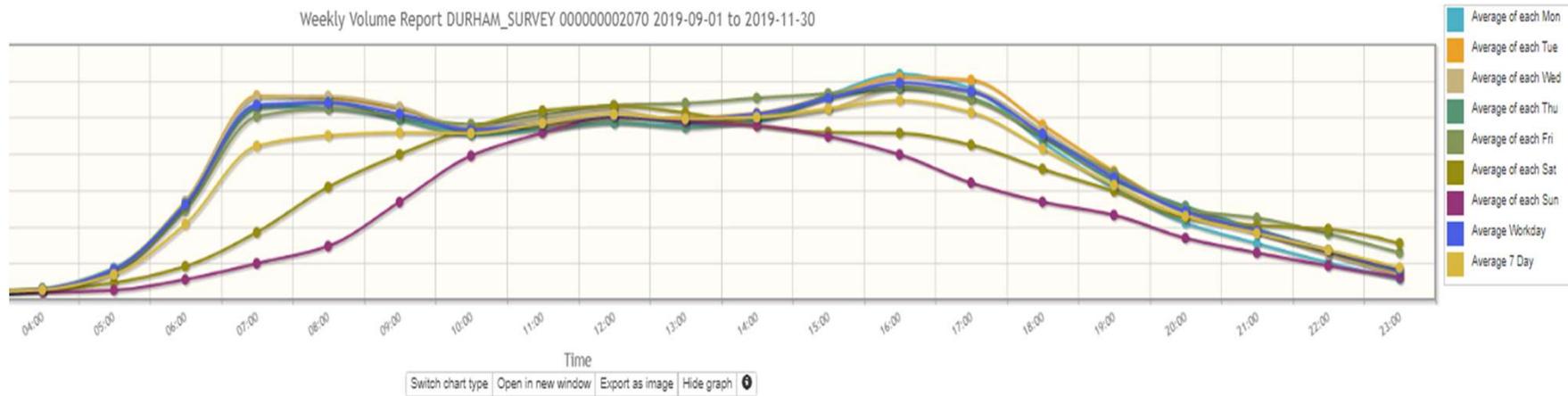
Going Forward: Tasks to be Completed During the Next 12 Months

- Complete the consultations for the revocation of the CLS AQMA and the extension of the Durham City AQMA.
- Collate the information and prepare the Annual Air Quality Status Report 2020 for submission to DEFRA by the end of June 2020.
- Complete the consultation on the Air Quality Strategy and present a report to REAL Management Team to recommend the Council adopt the Strategy.

Altogether better



Weekly Volume Report DURHAM_SURVEY 00000002070 2019-09-01 to 2019-11-30



Traffic Volumes on Leazes Road, Sep to Nov 2019

Altogether better



Local Air Quality Management Across County Durham,



Leazes Bowl Roundabout
Completed
October 2016

Altogether better



Local Air Quality Management Across County Durham,



Gilesgate
Roundabout
Completed
October 2016

Altogether better



Local Air Quality Management Across County Durham,



UTMC Information

Variable Message Signs

Traffic Cameras

Carpark Signs



Durham Osprey WebClient - VMS1 - A167 Honest Lawyer - Google Chrome
webclient.durham.cdmf.info/webclient/secure/vms/view?scn=VMS1

Properties Location Manual Override Scheduled Overrides

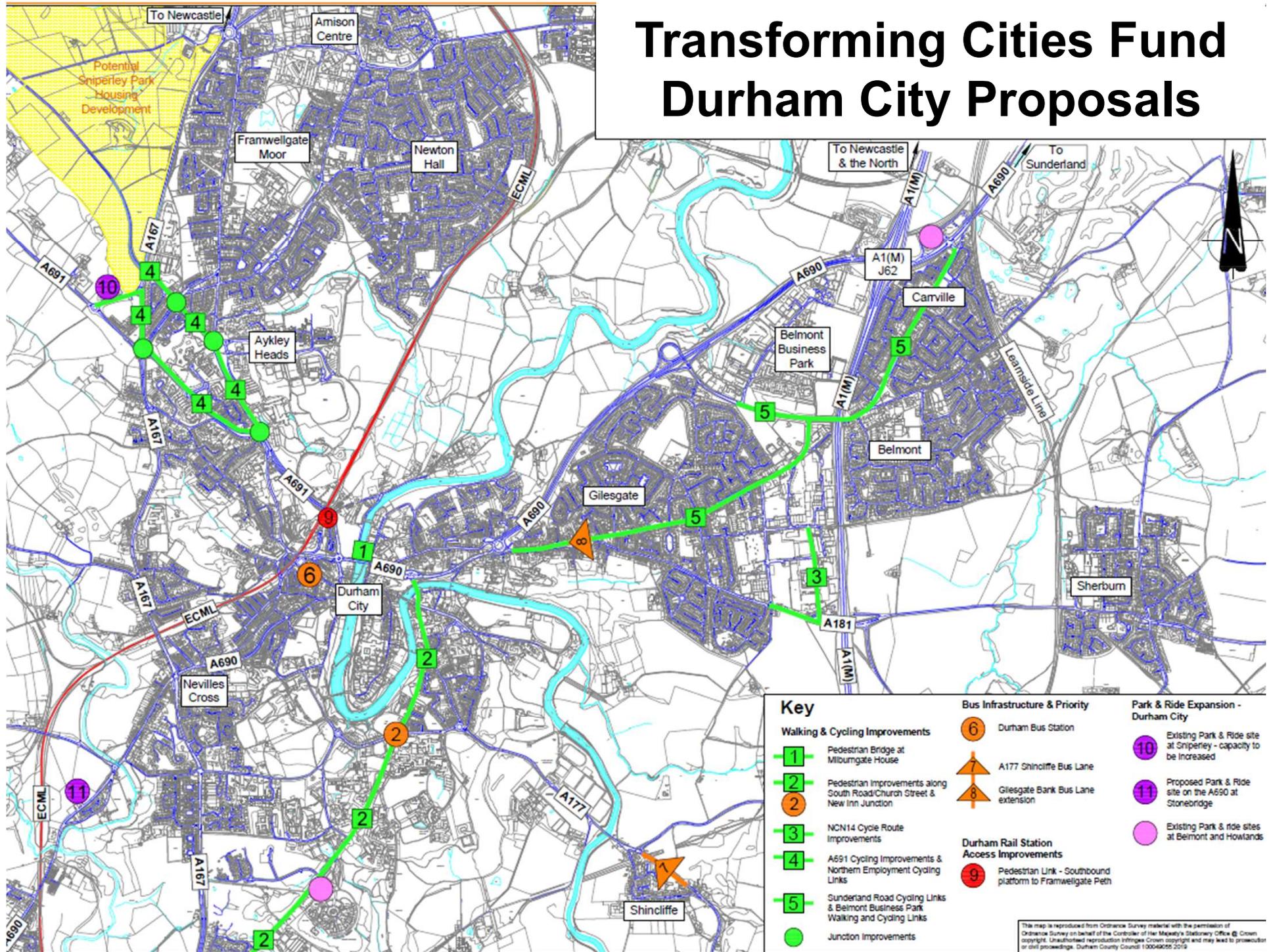
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Message Reason Group Scheduled Override
Faulty? false

DON'T TAKE DRUGS AND DRIVE POLICE CHECKS

Create fault View associated fault



Transforming Cities Fund Durham City Proposals



Key

Walking & Cycling Improvements	Bus Infrastructure & Priority	Park & Ride Expansion - Durham City
1 Pedestrian Bridge at Milburngate House	6 Durham Bus Station	10 Existing Park & Ride site at Sniprley - capacity to be increased
2 Pedestrian Improvements along South Road/Church Street & New Inn Junction	▲ A177 Shinccliffe Bus Lane	11 Proposed Park & Ride site on the A690 at Stonebridge
2 NCN14 Cycle Route Improvements	▲ Gilesgate Bank Bus Lane extension	● Existing Park & ride sites at Belmont and Howlands
4 A691 Cycling Improvements & Northern Employment Cycling Links	Durham Rail Station Access Improvements	
5 Sunderland Road Cycling Links & Belmont Business Park Walking and Cycling Links	● Pedestrian Link - Southbound platform to Framwellgate Peth	
● Junction Improvements		

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Local Air Quality Management Across County Durham

Any Questions

Altogether better



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