

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

**8 January 2020**

**Fleet Management**



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**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
<b>Total road legal vehicles</b>	<b>1017</b>

- 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.

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## Appendix 1: Implications

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### **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.